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# IMPACT OF STUDENTS' ATTITUDES AND <br> CLASSROOM EMOTIONS ON ENROLLMENT, PERSISTENCE AND SUCCESS IN L2 SPANISH CLASSES AT CHATTANOOGA STATE COMMUNITY COLLEGE <br> Juan Antonio Alonso Santillana 

PROGRAMA DE DOCTORADO EN FILOLOGÍA ESTUDIOS LINGÜÍSTICOS Y LITERARIOS

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## List of Abbreviations

AA: Associate of Arts degree
ALS: Attitudes towards the learning situation
AMTB: Attitudes-motivation test battery
AOSM: Anti ought-to self motivation
AS: Associate of Sciences degree
ATH: Attitude towards Hispanics in the United States
ATS: Attitude towards the Spanish language
ChSCC: Chattanooga State Community College
DMC: Directed motivational currents
EFL: English as a foreign language
ELL: English language learner
ESL: English as a second language
FL: Foreign language
FLAPS: Foreign language attitude and perceptions survey
FLCA: Foreign language classroom anxiety
FLCAS: Foreign language classroom anxiety scale
FLCS: Foreign language classroom shame
FLE: Foreign language enjoyment
FLES: Foreign language enjoyment scale
FLPE: Foreign language private enjoyment
FLSE: Foreign language social enjoyment
GLL: Good language-learner
GPA: Grade point average
INT: Integrativeness

ISLO: Institutional student learning outcome
ISM: Ideal self motivation
L1: First language
L2: Second language
L2MSS: L2 motivational self-system
LCDH: Linguistic coding differences hypothesis
LOTE: Language other than English
LX: Second, third, or other language
MLJ: Modern Language Journal
MNPS: Metro Nashville Public Schools
OSM: Ought-to self motivation
PERMA: Positive emotions, engagement, relationships, meaning, and accomplishment
PP: Positive psychology
PP 2.0: Second-wave positive psychology
PPI: Positive psychology-inspired interventions
RQ: Research question
SEM: Gardner's socio-educational model
SLA: Second language acquisition
SOPI: Simulated oral proficiency interview
SWPP: Second-wave positive psychology
TBR: Tennessee Board of Regents
TN: Tennessee
TTP: Tennessee Transfer Pathway
WTC: Willingness to communicate

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## Abstract

This doctoral investigation intends to measure the impact of beginner students' emotions and attitudes on their journeys through the Spanish LX program at Chattanooga State Community College. One of the working hypotheses is that positive attitudes towards the language and its speakers promotes enrollment in the program. Another one states anxiety and enjoyment will correlate (the first negatively, the second positively) with student persistence and success. The results indicate a relationship between attitudes and enrollment and student enjoyment and persistence. Instructors can have a positive impact on those positive emotions in the Spanish classroom through their professional and personal demeanor. As a result, implementing global and cultural awareness instruction to improve attitudes, and positive psychology-inspired interventions in the classroom to increase enjoyment can positively affect enrollment and persistence in the program. These interventions may also contribute to student success and well-being.

## Resumen

Esta tesis doctoral es un trabajo de investigación que se propone medir el impacto que las emociones y actitudes de los estudiantes principiantes tienen en su desempeño en el programa de español LX en Chattanooga State Community College. Una de las hipótesis de trabajo es que existe una correlación entre las actitudes positivas hacia el idioma y sus hablantes y la decisión de inscribirse en el programa de español. Otra establece que existe una correlación (negativa la primera, positiva la segunda) entre la ansiedad y el disfrute que los estudiantes experimentan en la clase y su perseverancia y éxito. Los resultados indican la existencia de una relación entre actitudes y la decisión de inscribirse y el disfrute de los estudiantes y su perseverancia. El profesorado puede tener un impacto positivo en el disfrute de los estudiantes en la clase de español mediante su comportamiento personal y profesional. Por tanto, programar un currículum de concienciación intercultural e intervenciones inspiradas en la sicología positiva en la clase puede tener un impacto positivo en las inscripciones y la perseverancia en el programa. Estas intervenciones podrían además contribuir al éxito y el bienestar de los estudiantes.

## 1. INTRODUCTION



### 1.1 Personal history and motivation behind the present research

The research topic of this dissertation is the culmination of thirteen years of observations as an instructor of Spanish in public institutions in the state of Tennessee. I taught Spanish as a second, third, or other language (Spanish LX) at the secondary level at Antioch High School in Nashville, TN full-time for five years after I moved to the U.S. in 2006 to participate in the Visiting Teachers from Spain Program. I have also had the opportunity to teach at the post-secondary level at two community colleges-Nashville State (parttime, 2007-2011) and Chattanooga State (full-time, since 2013). Finally, I have also taught part-time at a state university, the University of Tennessee at Chattanooga, since 2014.

When I first began teaching Spanish at Antioch High School, part of the Metro Nashville Public Schools (MNPS) system, I became intrigued by the unusual status of the Spanish language in Tennessee. I was used to the limited status of Spanish in Europe, where it is used little outside of Spain's national borders, so it was quite shocking to experience firsthand the widespread presence of the language in the United States. I was familiar with the historical links between Spain, Latin America, Florida, and the American Southwest, but I was not aware of the increasing presence of the language in the state of Tennessee and elsewhere throughout the American Southeast. A significant percentage of graduates in the MNPS system chose and continue to choose Spanish to fulfill their two-year foreign language graduation requirement, and Spanish accounted for $73 \%$ of all world language offerings in the system in 2016 (Metro Human Relations Commission, 2017). These numbers reflect the importance and status of Spanish as the LX of choice in educational institutions throughout the state, both for secondary and higher education pupils.

At the same time, I was surprised to discover that a significant portion of students, parents, administrators and even colleagues sometimes resented having to take an LX language class. Even Spanish, the language of choice for most, was frequently mocked and sidelined. The fact the school had over 20\% Latino enrollment (mostly recent arrivals in the area) did not do much to alleviate a relative disdain for the language. Although some saw it as an increasingly needed skill, many thought of it as another way these invaders were permanently changing Tennessee for the negative.

It also became apparent to me, from early on, just how difficult it can be to teach an LX in a classroom setting. The same teaching approach would yield uneven results with different groups of students. It did not take me long to discover that it was better to adopt a variety of strategies instead of sticking to the same ones, no matter how comfortable those were for me. This approach would frequently result in moderate yet laborious gains in achievement and performance among students. However, I was still profoundly intrigued by the haphazard effectiveness of these teaching practices from classroom to classroom and even from individual to individual.

In order to better understand this complex reality, I began to explore the existing research in the field and take advantage of professional development opportunities made available by MNPS. Back in 2006, most studies seemed to focus on general pedagogy and cognitive aspects of language teaching, but few seemed to explain why those same variables would have such different impacts from one student or group to another. Available training put the focus on classroom management, which was quite useful at the time but did not help me understand the role other factors played in the learning situation. Still, what I learned in classroom management training opened my eyes to the role that attitudes and emotions played on those divergences in outcomes. It also enabled me to implement some basic strategies I could use in the classroom to positively influence attitudes and emotions. After a couple of years of practice, it became apparent to me that the better the group dynamics in the class, the better the overall results in achievement and performance. I also had the opportunity to observe that the affective instructor-student and studentstudent relationships had a positive impact on results as well.

By this time (2007-2008), I had already started teaching Spanish LX night classes at a local community college, Nashville State, where I had the opportunity to observe that intrinsic student motivation was much more impactful than extrinsic. In addition, students who had a positive perception of Hispanics and Hispanic presence in Nashville seemed to obtain better results than those who did not spontaneously express such sympathy or interest. The mainstream perception of native speakers of Spanish as low-skilled, underprepared workers painted a picture of the language as that of an underclass whose presence in Tennessee had been very rare until the 1990s. Over time, it became clear to me that the more positive the students' attitudes towards Hispanics, the more likely they were to enroll—and do well—in a college Spanish class.

Unbeknownst to me, Robert C. Gardner and his associates had been studying this phenomenon for decades already, articulating it conceptually as integrative motivation. Despite my lack of awareness on this research, I began to introduce content in my classes to aid in increasing students' intercultural empathy and to help connect them with the Spanish-speaking community in the area by forging collaborations with local non-profit organizations working with the Latino population. These strategies proved successful for students, as well as professionally and personally fulfilling for me, so I made them part of my professional practice moving forward. Unfortunately, I did not enjoy such flexibility in my secondary school classes, in which the task of teaching Spanish LX (a required class for all students) was met with the resistance of frequently unwilling and unmotivated pupils. Because of my struggles adapting to this resistance, I was close many times to calling it quits and changing careers. The one thing that made me continue was the opportunity to develop and teach courses of Spanish for heritage learners at that same high school.

As mentioned earlier, Antioch High School had a Latino enrollment that hovered around $20 \%$-a substantial portion of the student body, with many of the students speaking Spanish natively. Until 2007, native Spanish-speaking students had been fulfilling their foreign language graduation requirements by attending Spanish or French L2 classes with no adaptations to their needs as heritage learners. The linguistic situation of this population was wildly diverse. Some students had received formal education in Mexico, Cuba, Honduras, Puerto Rico, or El Salvador; some had received limited education in those same countries; and many others had been born and raised in the U.S. and received no education in Spanish whatsoever. Starting that year, I had the opportunity to participate in a task force to design, implement, and teach a heritage Spanish program at Antioch High School that aimed to consider the students' varied backgrounds with the language, and to make adaptations to instruction. Even though the program had limited resources at the time, it was quite successful and motivated me to continue teaching language in the MNPS system until 2011.

In June of that year, I returned to Spain and spent two years teaching English as a foreign language in the city of Cáceres. During this time, I could not help but compare my experiences teaching these two languages in these two settings. On the surface, my students in Spain seemed more motivated to learn English than my students in Tennessee
were to learn Spanish. However, not all students in Spain presented the same levels of engagement. Once again, it became evident that classroom environment and personal relations were a key predictor of success. Over time, I observed increased motivation among Spaniards stemmed, among other things, from the fact pupils never questioned the usefulness or appropriateness of learning English. However, many of these students seemed to experience significant classroom anxiety, and some were not very willing to communicate in the target language. I did not make much of those insights at the time, but it was quite fulfilling to find them reflected in SLA research when I embarked in this dissertation's literature review.

In 2013, I returned to Tennessee to teach Spanish LX, this time to Chattanooga, where I was offered a full-time teaching position at Chattanooga State Community College (ChSCC). A year later, I also began teaching part-time at the University of Tennessee at Chattanooga, which has the largest Spanish LX program in the city. Once again, I had opportunities to confirm informally that better group and personal dynamics brought more enjoyment in the classroom, which seemed to be a major factor in student success and persistence. I also observed similar anxious responses and refusal to communicate in the target language on the part of my students but, despite my best efforts at the time, I had not yet discovered the keys to ameliorating these issues.

Teaching Spanish this time around was more rewarding than it had been at Antioch High School, but I did miss the opportunity to work with heritage speakers. Eventually, spurred by my desire to learn the latest trends in SLA, I pursued a Master of Arts in Applied Linguistics through Universidad Nacional de Educación a Distancia (UNED). Due to my longing for heritage Spanish teaching, I devoted my final thesis on the potential transfer of speech acts, such as apologies, between normative Mexican Spanish, normative American English, and the varieties of Spanish used by Mexican American heritage speakers of Spanish in the United States. Completing this master through UNED was quite fruitful, so I made the decision to take a step forward and begin a doctoral program at the same university in late 2017.

My initial idea was to continue focusing on the study of one or more aspects of heritage Spanish learning in Latino students residing in Tennessee. However, in conversations with Dr. Laura Alba Juez, my dissertation advisor, the topic of emotion in the SLA
classroom surfaced. As I started to dig into the topic, I came across the increasing number of papers published since 2012 that were focused on applying a positive psychology lens to the study of SLA. I felt an immense sense of joy and relief as I began to uncover methodological and epistemological models that discussed and provided frameworks for the research of concepts I had been informally observing in the classroom for years. I finally had the opportunity to measure, quantify, and better understand the impact of these factors, and explore and implement strategies to influence them.

Through thirteen years teaching Spanish LX in Tennessee, I had been able to observe how an enjoyable social environment in the classroom had a positive impact on motivation, and how motivation had an impact on results. I had also observed how a positive relationship between instructor and student contributes to improving student persistence and success, as well as, likely, student motivation to learn the language. It had also become apparent that for English L1 students in Tennessee, studying a language other than English (LOTE) in the era of global English is often a challenge due to students' limited backgrounds learning another language and/or lack of positive contact with speakers of that language. In fact, I was inclined to believe that the unique status of Spanish in the American Southeast enhanced the impact of a positive student-instructor relationship on motivation to learn the language. English L1 monolingual students in this area often struggle to find a reason to be excited about learning Spanish, a language in a very particular sociolinguistic situation in these students' communities. As evident in the data collected for this dissertation, many in the American Southeast perceive mastery in Spanish as a professional advantage, but this perception coexists frequently with negative sociolinguistic attitudes. As a result, negative attitudes towards the language and its speakers, and negative classroom emotions, such as SLA classroom anxiety, may have a distinct impact on the decision to enroll, the persistence, and the success of Spanish LX learners at ChSCC and beyond. It remains to be seen if the results of existing experiments establishing a relationship between affective internal-learner variables and student enrollment, persistence and success can be replicated with ChSCC Spanish LX students. If that were the case, instructors and the institution would be able to attempt influencing those affective variables to improve results in those three areas.

Along with these observations regarding classroom emotions, attitudes, and student performance, another trend captured my attention in my first few years teaching Spanish
at ChSCC. Since 2014, there has been a consistent drop in enrollment in LOTE programs at this institution, with fluctuations from year to year that did not alter a general downward trend. This was a new experience for me, as these fluctuations did not occur at MNPS between 2006 and 2011. Generally, students at ChSCC enroll in LX courses when their degree has them listed as a general education requirement. The Tennessee Board of Regents (TBR) manages these, and this organization currently sets these courses as a requirement just for bachelor and associate of arts degrees. Since ChSCC is a two-year college, most of the students taking Spanish (or French or German, which are the other languages offered) belong to the small number of students pursuing associate of arts degrees, which is usually between two and four percent of the total number of enrollees at the institution. This policy explains the generally low number of students commonly enrolling in LX classes, but not the recent drop in enrollment. This drop is not unique to ChSCC , and it is posing significant challenges to foreign language programs in higher education institutions across the United States. However, most of the reports documenting it reflect statistical data without attempting to explain the factors behind the drop.

One of the factors behind the loss in LX student numbers could be the recent focus on degree completion and successful transfers between schools in college systems across the country. The TBR tried to improve the system's community colleges results by establishing the Tennessee Transfer Pathways (TTP), an initiative approved in 2010 aimed at streamlining and facilitating transfer students moving from two-year to fouryear colleges. This initiative allows students, among other options, to declare a "general transfer major," which essentially allows them to complete their studies at ChSCC without taking any foreign languages at all. In addition, most majors or concentrations have an "Associate of Science" (AS) or an "Associate of Arts" (AA) curriculum, with the only difference between them being the absence (in the case of AS) or presence (in the case of AA) of a foreign language course requirement. A student declaring an AA in Psychology is required to enroll in two semesters of an LX class. However, if that student switches to an AS in Psychology, the only change made to their curriculum is that the LX requirement is dropped. The weakening of the foreign language education requirement under TTPs, along with the low sociolinguistic standing of Spanish in the region, may have been key elements in the downward enrollment trends for ChSCC Spanish programs
since the early 2010s. In light of these trends, increasing persistence in LX program in the U.S. is more important than ever.

As I was exploring literature to settle on a topic for my dissertation, under the guidance of Dr. Laura Alba-Juez, I became aware of new and exciting lines of research that could help me find answers to these questions, and solutions for these problems. Through my readings, I became familiar with the impact that foreign language classroom enjoyment (FLE), and foreign language classroom anxiety (FLCA), student attitudes, and motivation may have on enrollment, persistence, and performance in the SLA classroom. Most existing studies have focused on English LX learners outside of the United States. The scarcity of data from the American Southeast, and the relatively small number of studies focused on LOTEs, convinced me that it was necessary to perform a study of these characteristics with students of this region. My experience as a teacher in this state explains why another of the goals of performing this research is to contribute to the improvement of LX instructor training in public education in Tennessee. Updating teacher training with cultural empathy and positive psychology approaches and translating that training into interventions in the classroom can have benefits for professionals, programs, institutions, and, more importantly, students. The result is this doctoral dissertation: not just an attempt to contribute to the subfield of emotions in SLA, but also an exciting endeavor to articulate scientifically the observations and experiences of my now fourteen years teaching Spanish in the state of Tennessee.

### 1.2 Basic theoretical foundations

Acheson et al. (2015) played a key role in this dissertation's experimental design, as it is the provenance of one of the key variables in the first of the four studies undertaken for this dissertation-student attitudes towards Spanish (ATS) and Hispanics (ATH). Acheson et al. (2015) also provides insight on the impact of instruction in intercultural communication on secondary Spanish learners' attitudes and motivation. The empirical evidence this study provides indicating faculty can have an impact on those attitudes is made even more relevant because the population is very similar to the one studied in this
dissertation. They also provide evidence that improved attitudes have a positive impact on students' motivation and outcomes.

The conceptualization of FLE and FLCA as two key learner-internal variables in the L2 field goes back to Dewaele and MacIntyre (2014). They construct classroom enjoyment as the combination of creativity, pride, interest, fun experienced by the student in the classroom (conceptualized as foreign language private enjoyment, FLPE), and a positive relationship with teachers and peers (conceptualized as foreign language classroom social enjoyment, FLSE). FLCA is defined as "the worry and negative emotional reaction aroused when learning or using a second language" (MacIntyre, 1999, p. 27).

By combining my own experience as a language instructor with insights from the two studies referenced above, I developed the first formulation of my experiments. My central goal was to explore how two student emotions-classroom enjoyment and classroom anxiety-influence student motivation, persistence, and success in the Spanish classroom at ChSCC . In addition, I found it relevant to explore how attitudes towards the language and its speakers influence students' decisions to enroll in the program. Finally, I was interested in exploring whether the institution's administration and Spanish faculty can have a deliberate impact on those attitudes and emotions.

This is of particular importance due to the lack of institutional investment in exploring the reasons for the drop in enrollment in ChSCC's foreign language programs, a stance that is explained by the limited impact this drop has had on enrollment across the entire institution. Students taking LOTE classes in community colleges in Tennessee are seldom more than $2-4 \%$ of total enrollment. These paltry numbers often imply departments (where they exist as dedicated units) do not have enough influence on the school's policies, or enough time and resources to focus on addressing these enrollment drops.

A better understanding of how FLE and FLCA affect students' motivation and outcomes, and how faculty and institutions can influence them, would allow the latter to plan strategically to influence students' attitudes and emotions to increase enrollment and persistence in the program, and contribute to students' success and well-being. The results can be used to arrange instructor training that places emphasis on developing skills that are not traditionally linked to teaching performance in higher education. These skills include emotional intelligence and emotional self-evaluation on the part of the teacher.

These can enable instructors to foster a positive learning environment and a positive relationship with students. In addition, by shedding light on the impact student ATS and ATH have on enrollment decisions, this study could influence the institutional approach towards promoting intercultural empathy inside and outside the classroom. This promotion could directly benefit persistence rates in LX programs and correct the drop in enrollment these programs have experienced nationwide since 2013 (Looney \& Lusin, 2018). It would also contribute to improving ChSCC outcomes for the global and cultural awareness institutional student learning outcome (ISLO), as well as contributing to the well-being and sense of belonging of the growing Hispanic student population attending ChSCC.

One shortcoming of the research in this dissertation is the limited size of the sample: just 70 students. However, because these 70 are almost the totality of the 72 people who enrolled in Spanish 1010 on campus the semester the study was run, and there are existing quantitative studies using similar research questions to triangulate the results, the sample was considered strong enough to draw statistically significant results. That said, to allow for a more accurate interpretation of these results, a qualitative component was integrated into the research design, inspired by Pavelescu and Petric (2018). Nine of the 70 subjects volunteered to participate in this qualitative component. They were encouraged to produce a narrative of their personal experience learning the Spanish language, and to participate in two semi-structured interviews aimed at further exploring their narratives and the quantitative data collected from them in the first phase of the study. This research component contributed significantly to supporting, explaining, and clarifying some of the correlations and conclusions found in the quantitative portion of this study.

In conclusion, I intend to confirm whether the results obtained in some of the studies cited above are applicable to English L1 American students from ChSCC learning a LOTE (Spanish). The new setting and target language offer the potential to explore and find new issues applicable to this context and to contribute to opening new avenues for future research. This study also intends to shed some light on the patterns of enrollment and persistence in LOTE programs in community colleges in Tennessee. It intends as well to contribute to making clear how faculty and institutions can positively affect students' attitudes and classroom emotions so that they can be successful in their LOTE programs and, by extension, in their academic careers at ChSCC. Finally, it aspires to contribute to
bettering the sociolinguistic status of the Spanish language and its speakers in the ChSCC service area.

## 2. BACKGROUND



### 2.1 Enrollment, persistence, and success

Despite the attention community college administrators in the U.S. put on enrollment and persistence figures, there is a significant lack of empirical research on enrollment in SLA courses in these institutions (Wesely, 2010). The most important publications measuring national enrollment trends in these courses are the Modern Languages Association periodical reports. However, these reports just present the data, without digging into the underlying causes influencing these trends. The last report, published in February of 2019, examines the trends between the fall semesters of 2013 and 2016 (Looney \& Lusin, 2019). It shows a drop in enrollment of 9.2 percent across all languages and institutions. This drop is even more acute at two-year institutions, decreasing as much as 15.9 percent since 2013 (a sharp 28.6 percent drop since 2009, when SLA enrollment in American colleges was at an all-time high). When we focus on Spanish LX, enrollments had an overall drop of 9.8 percent (. 6 percent above the average), but Spanish still accounted for 50.2 percent of the total enrollments in SLA programs in higher education (Looney \& Lusin, 2019). This decrease came after total numbers of enrollees had nearly doubled between 1970 and 2009, an upward trend that ran parallel to the increase in high school students taking Spanish LX—a doubling of enrollment between 1982 and 2009 (Colburn, 2018).

General enrollment and persistence trends at both two-year and four-year institutions of higher education have inspired large amounts of research in the U.S. (Juszkiewicz, 2017 or Ma \& Baum 2016, to name two of the most relevant ones). Colburn states the lack of data collected nationwide implies that institutions need to collect and analyze their own statistics in order to understand the status of their enrollment figures and project future trends (Colburn, 2018). The present dissertation does not intend to fully explain enrollment trends for ChSCC's Spanish program, as these could only be explained through complex models accounting for an excess of variables, such as the ones present in Guerin's framework (2016). These include higher learner-external variables, such as education financing policies, sociopolitical shifts, demographic make-ups, and educational policies at both the state and federal levels; in addition to actor-internal ones, such as sociolinguistic attitudes among recruiters, advisors, and potential students. It is within the latter set of variables that this study could contribute to shedding some light on
the degree to which the attitudes the students have towards the Spanish language and its native speakers is correlated with the decision to either enroll or not in a Spanish LX course. In order to measure the degree to which sociolinguistic attitudes played a part in initial enrollment in Spanish LX, the subjects were asked a battery of questions aimed at measuring them. Similar data was collected from a control group of students who declared their intention not to enroll in any Spanish course while at ChSCC.

Most general studies attempt to explain enrollment trends are based on the analysis of external variables, which do help explain general trends and allow institutions to plan financially, based on projections. However, these studies also indicate institutions have little control over most of those variables. This is one of the reasons colleges generally focus their enrollment efforts on marketing and financial strategies, and then devote the rest of their energies to the other side of the coin-persistence. Persistence can be defined as "continued enrollment (or degree completion) within the same higher education institution" (National Student Clearinghouse Research Center, 2020). Community colleges generally measure persistence based on the percentage of students who continue to be enrolled in one of their programs from their first fall semester into the fall semester of the second year. While continued enrollment is labelled persistence, discontinued enrollment is labeled attrition. Just like enrollment, persistence can also be explained by external and internal or affective variables. However, most colleges perceive that they can do more to impact variables affecting the latter and, as a result, curve attrition and increase total numbers. Persistence is also important because "...for every student lost, an educational dream goes unfulfilled. And for every unfulfilled dream, there is a longterm impact [...] student attrition represents huge potential losses to the individuals, their families, and society as a whole" (Fike \& Fike, 2008, p. 85). As a result, the number of studies addressing student persistence in higher education institutions is much higher than those focused on enrollment. Relevant ones include Bean and Eaton (2001), DeBerard et al. (2004), Devonport and Lane (2006), Fike and Fike (2008), Kahu et al. (2017), and Hlinka (2017). Other recent studies, like Postareff et al. (2017), Kahu and Nelson (2018), and Respondek et al. (2017) also explore the impact of internal and external variables on first year college students and, even though their studies are focused on student success, their findings have implications for explaining persistence.

Bean and Eaton (2001) is an influential pioneer study proposing a persistence model based on the academic and social integration of the student. They focus mostly on preexisting institutional practices geared towards promoting persistence, but they make a point of defending the psychological aspects behind their effectiveness. Some of the practices positively affecting student-internal variables are learning communities, freshman interest groups, tutoring, and advising/orientation. In their opinion, attitudebehavioral theory, coping behavioral theory, self-efficacy theory, and attribution theory explain how these practices promote persistence. They believe understanding these processes can allow institutions to use them more effectively and is more realistic than the preexisting (yet still influential) sociological approach to persistence of putting the focus on students' socioeconomic realities. Their approach matches the increasing influence of cognitive psychology on educational research at the turn of the twenty-first century. According to their model, self-efficacy assessments, coping processes and locus of control govern sociological factors affecting students' interactions with higher education institutions-including bureaucratic, academic, and peer-to-peer interactions. As a result, institutional practices that promote positive emotions, increase confidence and internal motivation, and curb stress and anxiety are the most effective tools to help a student integrate. The subsequent positive effects do not just affect persistence, but also the student's overall well-being. In summary, they argue that internal and external variables affecting persistence are inextricable and, when institutions focus just on external ones-such us perceiving academic initiatives simply as means for task accomplishments or skill developments-they are missing the opportunity to actively contribute to developing positive attitudes towards attending the school. The solution, in their opinion, is acknowledging the importance of affective variables in their persistence strategies, and implementing changes focused on positively influencing those variables by putting in place the appropriate staff developmental training.

Devonport and Lane (2006) conducted qualitative research to develop a student selfefficacy measuring scale, assessing confidence to achieve the competencies required to complete the first year of a college degree. Their study sets aside the effects of institutional practices and focuses on theorizing the impact of student internal variables on persistence. Their findings indicate student self-efficacy contributes to preventing
attrition, and the study helped cement the importance of psychology-based approaches to understanding student persistence.

Shortly after, Fike and Fike (2008) conducted the most ambitious persistence study on American community colleges to date by analyzing predictors of fall-to-spring and fall-to-fall persistence for 9,200 community college freshmen. Their study relied on the exclusively socioeconomic approach Bean and Eaton (2001) cautioned about, leaving affective variables out. They conclude developmental education programs, and internetbased courses are the top two variables influencing persistence, along with financial aid, parents' educational levels, number of hours enrolled during the fall semester, and participation in student support services programs. Even though the authors themselves recognize their study was not an experimental design and causal relationship could not be determined or explained by it, studies like this one continue to inform persistence strategies in community colleges across the United States.

Recent scholarship has veered towards more holistic, affective, student-centered approaches when it comes to understanding persistence. An interesting example is Hlinka (2017), who conducted qualitative research intended to tailor existing persistence theories to meet the needs of community college students in West Virginia, an area of the U.S. sharing many cultural similarities with rural East Tennessee (they are both considered part of the Appalachian region). Her research identifies three major factors affecting students' decisions about persistence: community and family values about education, family obligations, and the struggle to make the cognitive leap necessary to master college-level coursework. One of the key contributions of Hlinka's study is the recognition of students' cultural values in community college persistence. The author concludes recognizing the importance of tailored approaches and promoting the feeling of belonging as contributors to student persistence, and adds:

College administrators, program personnel, and teaching faculty are urged to move beyond the common practice of simply copying successful programs and practices established at other colleges. Rather, persistence practices should be tailored to reinforce a campus culture that strengthens
identified sources of student encouragement and empowers students to combat forces that are, for them, barriers to retention. (Hlinka, 2017, p. 160)

Kahu and Nelson (2018), Postareff et al. (2017), and Respondek et al. (2017) discuss persistence along with the concept of college success, with the former being part of a comprehensive conceptual framework of student engagement. College success is usually conceptualized statistically by higher education institutions, and it generally refers to grades, completion rates (percentage of people who complete a degree within an institution), and, for community colleges, transfer rates (percentage of people who successfully transfer away into a four-year college). Its importance goes beyond mere statistics, as the funding formula many American states use for their higher education institutions is partially conditioned by achieving certain benchmarks in completion and transfer rates. Persistence and success are obviously connected: if a student is not retained, they cannot possibly complete their degrees or successfully transfer, which is why the latest research in persistence addresses it within the scope of college success.


Figure 1. Kahu and Nelson (2017) Conceptual Framework of Student Engagement
Kahu and Nelson (2018) propose shifting the focus away from first-year persistence and instead addressing persistence and success through a cultural lens that recognizes the educational interface in relation to the individual psychosocial space. Their research
identifies student-centered and institution-centered variables against the backdrop of their sociocultural context. Their model, pictured above, identifies four psychosocial constructs-self-efficacy, emotions, belonging, and wellbeing-as key mechanisms mediating the interaction between students and educational institutions. The final goal of their research is to provide focus for designing curriculum and co-curricular initiatives that can address success and persistence while integrally addressing those four psychosocial variables. These authors acknowledge the importance of cultural capital, encouragement, and role models in educational self-efficacy (the ability of students to perform a given task, integrating cognitive skills and environmental factors). They believe this explains why rural or working-class students often require more support to achieve the same level of self-efficacy as middle-class students with educated parents. Their conclusions acknowledge the impact of cultural capital and family influence on the ability of a student to complete a complex task (such as learning a new language) in an academic setting. Their model is also novel in the way it conceptualizes emotions, by dividing them into positive (interest, enthusiasm, admiration, empathy), and negative (chiefly anxiety). They conclude that students' previous experiences, including their sociocultural backgrounds, can interfere with their self-efficacy and emotions, which in turn may affect their success and persistence.

Postareff et al. (2017) and Respondek et al. (2017) have a narrower focus. Both studies attempted to focus on student success, were set in European universities, and offered the novelty of researching the impact of students' emotions on success, which they understand is closely related to persistence. Postareff et al. criticize the dichotomy between positive and negative emotions and instead prefer to acknowledge the wide variety of emotions students experience in academic settings in all its complexity, with positive and negative emotions potentially occurring simultaneously. They recognize the importance of integrating emotion, cognition, and motivation into the effort to understand student success, relying conceptually on Pekrun and Perry's control-value theory of academic emotions (2014). Postareff et al. (2017) embarked on a mixed-methods study with students at a university in Finland to identify the emotions first-year college students experience in academic settings and, in turn, how those influences correlate with those students' approaches to learning. Their experiment's results indicate emotions have a central role in student learning during their first year in higher education, and identify
three different student profiles: cluster 1 , cluster 2 , and cluster 3. Cluster 1 expressed mostly positive emotions, generally progressed well academically, and demonstrated a successful use of coping strategies to overcome difficulties. Cluster 2 expressed strong negative emotions (anxiety and frustration) but had a deep approach to learning and practiced effective study strategies that also helped them progress well. Cluster 3 included those who expressed strong negative emotions and a superficial approach to learning. Their progress was dramatically slower and their GPA much lower when compared to the other two clusters. In summary, the authors claim emotions are not good predictors of generic academic success, as both clusters 2 and 3 voice mostly negative emotions and yet diverge greatly in their academic results. Despite the many limitations of their study, it shows how difficult it is to conceptualize emotions in empirical research and to draw solid conclusions on the direction of the relationships linking student emotions and academic variables, such as success and approaches to learning.

Respondek et al. (2017) had similar goals: to find out whether academic control and academic emotions can predict academic success in college at a German university. They conceptualized academic success as low dropout intention and high achievement indicated by grade point average (GPA). For the overall sample of students, they discovered that perceived academic control (the subjective perception of individual influence on academic outcomes) predicts a positive emotion (enjoyment) as well as achievement, and negatively predicts negative emotions, such as boredom and anxiety. They also found anxiety to be closely related to the intention to drop out. Just as Postareff et al. (2017), they relied on Pekrun and Perry's control-value theory (2014) to conceptualize student emotions in an academic setting. Respondek et al. (2017) recognizes the need for more research to confirm some of their findings, but their study did unveil a relationship between positive and negative emotions, persistence, and academic success among some European freshmen college students, and concluded that support by higher education institutions can sustain positive emotions and alleviate anxiety to contribute to improving student outcomes.

Compared to the abundant body of research studying persistence and success in colleges and universities across the world, studies focused on persistence and success in SLA programs in higher education institutions in the U.S. are still sparse. One notable exception is Aimee Guerin's dissertation, titled "Using demographic variables and in-
college attributes to predict course-level persistence for community college Spanish students", published in 2016 in Arizona. She echoes the lack of specific studies centered on the course-level persistence of Spanish LX students at two-year institutions. Her study finds a relatively low level of persistence past first-year courses, and focuses on external variables to explain persistence trends, such as gender, ethnicity, academic load, course modality, GPA, and developmental English coursework.

Older studies (Clément et al., 1978; Saito-Abott \& Samimy, 1997) indicated integrativeness is correlated with persistence within SLA programs in North American post-secondary education. The former observed it among English LX students in Frenchspeaking Canada, the latter among Japanese LX students in the United States. When addressing persistence, other internal variables such as classroom emotions come to the foreground. Another study, Dewaele and Thirtle (2009) found British English L1 pupils are less likely to persevere in the study of another language, "they were less likely to feel a need to master a FL" (p. 649). This is highly relevant for the study conducted in this dissertation, as it could be argued American English L1 pupils may show a similar tendency towards attrition, perhaps based on sociolinguistic attitudes. Their study also indicates learner internal variables, such as FLCA, were predictors of enrollment attrition. This study concludes: "As researchers and teachers we need to protect and strengthen the learners' budding desire to learn a new language and we need to help them expand their linguistic and cultural horizons" (Dewaele \& Thirtle, 2009, p. 649).

The purpose of the study of students' attitudes conducted as part of this dissertation is to measure the degree to which student attitudes can predict a decision to enroll in a Spanish 1010 class or not. If the analysis of the data shows positive attitudes towards the Spanish language and its speakers are positively correlated with the decision to enroll in ChSCC's Spanish LX program beyond degree requirements, intervening across the curriculum to improve those attitudes would arise as a tool to increase enrollment in this program. This would contribute to partially shore up the effect enrollment losses have had on Spanish departments over the last 11 years, including faculty and staff lay-offs and altogether elimination. If having a negative opinion of Spanish and its speakers impacts enrollment, and FLCA and FLE have an impact on persistence, colleges can try to impact those variables by actively promoting educational and extra-curricular activities devoted to
improving the perception of Spanish and its speakers and by providing instructors with training to help them increase classroom enjoyment.

In addition, higher education institutions in the U.S. could fulfill their global and cultural awareness institutional learning outcomes, following the criteria established by the American Association of Colleges and Universities (AAC\&U, 2014), while contributing to increasing enrollment in their Spanish LX programs. This could also benefit other LX and ethnic studies programs, since a case could be made to design instruction (particularly in freshmen courses) and campus activities that foster a better opinion of other cultural minorities, and their languages. This constructive approach could be particularly impactful in conservative areas of the country, in which negative views of minorities and their languages are frequent outside of (and sometimes within) academic circles.

This dissertation measures persistence based on the number of subjects who returned in the spring of 2019 to enroll in the second semester of Spanish at ChSCC. Attrition is understood as the number of subjects who abandoned the first semester of Spanish, failed it, or completed it successfully, but did not enroll in the next semester of Spanish.

As per the measurement of success in Spanish LX college programs, current literature categorizes their measurements of success based on one of the following criteria:

- Acquiring proficiency in an area of the target language (Tremblay \& Gardner 1995, Henry et al. 2015, or Kim et al. 2017)
- Increasing willingness to communicate (WTC) in it (Simons et al. 2019, Dewaele 2015)
- The results of some sort of standardized test (Bernardo et al. 2014)
- Comprehensibility and accentedness (Nagle 2018)
- Self-reported proficiency levels (Papi 2010, Dewaele \& MacIntyre 2014)
- Grades received at the end of the course (Cabaniss 2017, Prieto 2010).

In the present study, success will be measured by collecting the final grades obtained by subjects at the end of their first semester of Spanish at ChSCC, and by gains in proficiency measured through a pre-test and post-test all subjects will complete at the beginning and the end of their Spanish 1010 course.

### 2.2 Motivation in SLA classes

In the Spanish Real Academia Española (RAE) dictionary, the third definition for motivation is:

Conjunto de factores internos o externos que determinan en parte las acciones de una persona.
[A set of internal or external factors that partially determine a person's actions - My translation]

Today, motivation is the object of study in numerous branches of science, including neuroscience and psychology. The latter branch has inspired recent research on the impact of motivation in education, including the studies aimed at exploring the influence of motivation in SLA in the classroom.

In this section, the two most influential models in L2 learning motivation will be reviewed. These are Gardner's socio-educational model (SEM), and Dörnyei's L2 motivational self-system (L2MSS). The purpose of the review is to justify their adequacy-and shortcomings-in explaining motivation to study Spanish LX at ChSCC, as well as exploring the relationship between classroom emotions and motivation. To achieve that goal with sufficient accuracy, and for epistemological clarity, the most relevant theories of motivation from the fields of neuroscience and psychology will also be succinctly reviewed.

### 2.2.1 Psychological theories of motivation

From the perspective of psychology, the traditional views of motivation can be grouped into four schools of thought throughout the twentieth century: behavioral theories, humanistic psychology, cognitive psychology, and content theories.

Since the beginning of the last century, the idea of motivation has progressed from views that saw it triggered by unconscious, repressed instincts and drives, to theories of
motivation related to behaviorist psychology (Dörnyei \& Ushioda, 2013). For behaviorists, humans have basic needs that trigger motivation, but motivation can also explain any behavior conducive to gaining reinforcers, such as positive feedback, mastery in a language, a good grade in a class, or acceptance into an exclusive educational program. Some relevant behavioral theories of motivation are connectionism (Thorndike, 1913), Pavlov's classical conditioning as interpreted by Watson and Rayner (1920), and operant conditioning theory (Skinner, 1938).

Another school of thought that devoted its attention to motivation during the twentieth century is humanistic psychology. Pineda (2011) characterizes humanistic theories as moving away from the original passive role of the individual, and instead emphasizing personal freedom and self-determination, with a focus on choice and personal growth. This school of psychology started to develop in the 1960s, in part as a reaction to the mechanistic views of behaviorists (Dörnyei \& Ushioda, 2013). Some of these theories are among the most influential in modern education and include Maslow's hierarchy of needs theory (Maslow, 1954), and Carl Rogers' views on self-actualization as the main human motive (Rogers, 1959) - the latter which laid out the concept of the ideal self and of selfimage as a fundamental element to understanding human motivation, basic elements of the L2MSS.

The third set of influential twentieth century motivation theories are the ones advanced by cognitive psychology. In her review of the history of motivation, Pineda (2011) indicates that the key difference between behaviorist and cognitive views of motivation is that, according to the first, people only respond to external events or physical conditions. For cognitivists, however, there is an emphasis on internal sources of motivation (such as curiosity), interest in a task, satisfaction in learning, or feeling accomplished (Woolfolk, 1987). Dörnyei and Ushioda (2013) characterize the cognitive view of motivation as focusing on mental structures, beliefs, and information-processing mechanisms in shaping individual behavior and action. The individual attitudes, thoughts, beliefs, and interpretations of events, and how these influence their behavior are at the center of the conceptual models of motivation put forth by cognitive psychologists. All these individual variables can be reduced and expressed simply by stating motivation is the result of combining the expectations of an individual and the value given to them. Purpose, goal setting, and the personal expectancy of success in achieving these set goals
then motivate individuals. Expectancy of success is mediated by the value an individual attaches to its attainment. As a result, the higher the likelihood of succeeding and the greater the value given to that success, the stronger the incentive to pursue it. According to this school of thought, individuals balance a range of desires and goals by considering their perceived ability to achieve them, and the environmental support to do so. This view of motivation develops the foundations established in Rogers (1959) to serve as the basic inspiration for L2MSS, as laid out by Dörnyei (Csizér \& Dörnyei 2005, Dörnyei 2009). Some other influential cognitive theories of motivation are cognitive dissonance theory (Festinger, 1957), expectancy theory (Vroom, 1964), and goal-setting theory (Locke, 1968)

The fourth and last sets are the content theories of motivation, which are very influential in general motivation and education studies, such as the existence, relatedness, and growth (ERG) theory (Alderfer, 1969), the achievement motivation theory (McClelland et al., 1976), and the two-factor theory (Herzberg et al., 1993).

The most relevant current psychology theories of motivation are fundamentally cognitive in nature. Souders (2020) offers a list of them based on their concept of focus:

Attributions (Weiner, 1986): Weiner's attribution-emotion-action model of human behavior outlines twelve principles to go beyond homeostasis and hedonism as the sole explanation for motivated behavior. The result is an attributional theory of motivation guided by two sub goals: to define the relationship between attributional thinking and distinct emotional reactions, and to specify the relationships among cognition, emotion, and action.

Deliberative versus implementation mindsets (Gollwitzer \& Kinney, 1989): Their focus is connected to implementation intentions but adds another potential response to obstacles to goal attainment. According to this construct, deliberative mindset individuals are open to information in their environments, no matter how challenging this is to their pre-existing convictions. These individuals tend to be able to assess if a desired outcome can be controlled by their actions or not. Meanwhile, implementation mindset individuals filter that information to fit their preconceptions and foster an illusionary optimism with respect to controlling the outcome.

Growth versus fixed mindsets (Dweck, 2016): According to this focus, individuals may believe their talent can be developed, or may believe talents are innate gifts. The former believes in hard work, good strategies and feedback, and they have a growth mindset, whereas the latter, with fixed mindsets, tend to achieve less in educational and professional settings.

Identity (Eccles, 2009): This theory is closely related to the expectancy-value model of achievement advanced by the same author and Wigfield in 2002. In this case, Eccles proposes an expectancy-value perspective on identity and identity formation. According to this theory, identity can be conceptualized through two basic sets of self-perceptions: those related to skills, characteristics, and competencies; and those related to personal values and goals. These inform individuals' expectations for success and the importance (value) they attach to undertaking a wide range of tasks, perceived as required to achieve success. These self-perceptions are mediated by personal and collective identities, which develop over time.

Implementation intentions (Gollwitzer, 1999): Gollwitzer believes individuals may use automatic processes to secure goal attainment in the face of difficulties. He calls this automatic process implementation intention, which connects anticipated problems to goal-directed reactions to them. Since the responses to these problems are anticipated, the reactions are produced automatically when problems arise.

Mastery beliefs (Diener \& Dweck, 1978): This theory observes how certain children, labeled helpless-oriented, show performance declines under failure, whereas masteryoriented ones reacted to failure by improving their performance. The key to motivation in mastery-oriented individuals is to reduce their attribution for failure to lack of ability and to engage instead in self-monitoring and self-instructions in order to remedy failure.

Perceived control (Skinner, 1996): Skinner laid out an integrative framework to organize different constructs related to the idea of control. These constructs include objective, subjective, and experienced control, as well as agents, means, and ends of control. Perceived control belongs to the subjective constructs of control and is the personal belief that an individual has controllability on behalf of one's self, and the ability to control external threats or events. (Mardiyono et al., 2011)

Plans (Carver \& Scheier, 1998): These authors' model of human functioning is based on the belief that behavior is goal-directed and regulated by feedback control processes. For Carver and Scheier, "goals are a necessity of life." (p. 346)

Possible selves (Oyserman et al., 2004): Oyserman et al.'s theory of the possible selves is a fundamental theoretical foundation of Dörnyei's L2MSS. For these authors, expectations of one's self, or possible selves, can promote feelings of wellbeing as well as self-regulating behaviors. As a result, improved academic actions are likely only when a possible self can act as a self-regulator. Their empirical research indicated there is more support attributing change in behavior and academic outcomes to self-regulation, than there is into attributing these changes in behavior to affect regulation. Oyserman et al. (2006) attempt to clarify how possible selves and academic outcomes are related. They try to explain the gap between attainment and academic possible selves among young low-income and minority students by further defining the concept of possible academic selves, stating that these are relevant mediators of academic success only if they are linked with plausible strategies and connected with social identity.

Promotion versus prevention orientations (Higgins, 1997): Also referred to as approach-avoidance motivation. It establishes promotion and prevention as the alternative focuses for individual self-regulation. The first one covers the pursuance of accomplishments and individual aspirations, while the second is related to the pursuance of safety and individual responsibilities. Both types of regulatory focus can be applied to events, which will be treated in terms of either promotion or prevention, pursuing individual well-being and trying to avoid cognitive dissonance.

Reactance theory (Brehm, 1966): This theory establishes that individuals have certain freedoms regarding their behavior. When those freedoms are reduced, or are perceived to be threatened, the individual's motivation will be aroused to regain them.

Self-concept (Markus, 1977): Markus believes cognitive structures about the self (selfschemata) are formed because of individuals' attempts to organize, summarize, and/or explain one's own behavior in each domain. Self-schemata are cognitive generalizations about the self, resulting from previous experiences that organize the processing of selfrelated information against the background of the individual's social experience. These
self-schemata contain behavioral evidence, which allow for predicting an individual's behavior in each circumstance.

Self-control (Baumeister \& Tierney, 2011): For these authors, most problems affecting modern individuals have a degree of self-control failure as a central aspect. Since selfcontrol, unlike other innate cognitive characteristics, like intelligence, can be strengthened, it represents a powerful opportunity for ordinary people to improve themselves. However, willpower seems to be finite, and can be exhausted, which leads to ego depletion. Allowing individuals to learn about the relationship of their willpower to success would allow them to better manage this important asset to achieving their goals in an academic setting and beyond by adopting proactive strategies for the administration of their own willpower. One interesting aspect of their theory is the discovery of the impact of glucose levels on willpower-linking biochemistry with motivation.

Self-efficacy (Bandura, 1986): The self-efficacy theory is one of the most influential in modern educational research. Bandura defines self-efficacy as follows:

People's beliefs about their capabilities to produce designated levels of performance that exercise influence over events that affect their lives. Selfefficacy beliefs determine how people feel, think, motivate themselves and behave. Such beliefs produce these diverse effects through four major processes [...] cognitive, motivational, affective, and selection processes. (Bandura, 1994, p. 71)

Self-regulation (Zimmerman, 2000): Zimmerman's social cognitive perspective understands self-regulation as a complex set of concept-specific processes used to achieve personal goals. This set of processes affects more than one area, ranging from metacognitive knowledge to affective and behavioral skills, and includes a sense of resilience, or self-efficacy, to control them. These processes are cyclically interdependent, and operate in three sequential phases: forethought, performance control, and selfreflection. Dysfunctions in behavior are explained through reliance on reactive methods of self-regulation, whereas achievement is generally mediated by proactive methods.

Values (Wigfield \& Eccles, 2002): Based on Eccles' expectancy-value model of achievement motivation and behavior, Wigfield and Eccles uphold that individuals' expectancies for success, and the value they place on succeeding, are key factors behind both their motivation to perform achievement tasks, and the selection of those tasks. For the authors, competence-expectancy beliefs and values relate to each other over time and mediate individuals' motivational behavior.

### 2.2.2 Research on motivation in SLA classes

Research on motivation in SLA classes is generally more recent, and it has been influenced by the cognitive psychology views summarized above, with concepts such as promotion vs. prevention, self-efficacy, reactance, attributions, self-concept, and possible selves appearing frequently in the literature. Since 1959, this aspect of language acquisition has been extensively researched, particularly since 1985. Despite the large number of studies devoted to this research area in the last decades, there are notable limitations in their scope: most studies are focused on global English learning, and on formal secondary and post-secondary settings. As a result, motivation to learn LOTEs and to learn languages in alternative settings continue to be understudied.

Over time, two major paradigms have arisen from the research:

The first one is the SEM, formulated in a very influential study published by Gardner in 1985, and further developed in later papers. This original paper is considered a foundational study in the field. A synthesis of motivation research based on this paradigm can be found in Boo et al. (2015).

The other one is the L2MSS, (Dörnyei \& Csizér, 2005; Dörnyei, 2009). The L2MSS is currently the most widely considered framework to analyze motivation in L2 students and it conceptualizes motivation within two self-guides: the ideal and the ought-to L2 selves. The former represents the ideal L2 speaker the learners want to become, while the latter represents the outcomes the learners feel they must meet to match third party expectations (those of friends, family, and society at large) and thereby avoid negative consequences. The popularity and influence of the L2MSS has grown hand in hand with the interest in
learning global English throughout the world, to the point that a large percentage (70 percent, according to Ushioda and Dörnyei, 2017) of studies in motivation to learn other languages adopting this framework focus on English language learners (ELLs). This poses the question of whether this motivational model also applies to studying the motivation to learn LOTEs. To that effect, in 2017 the Modern Language Journal published a special issue focused on exploring methodological modifications and expanding the epistemological reach of the L2MSS to better adjust it to the intricacies of student motivation to learn LOTEs.

This dissertation tests the suitability of the L2MSS for measuring motivation to learn Spanish in the classroom at ChSCC, but it also uses elements from the SEM to explore the impact of attitudes in ChSCC students' decisions to enroll in a first semester of Spanish LX. Motivation's relationships with classroom emotions, persistence, and success are explored following the criteria of the L2MSS as well. A qualitative component of the study is devoted to understanding the potentially complex nature of the ought-to self construct among English L1 students of Spanish LX at ChSCC.

The analysis of the two paradigms introduced above will be undertaken chronologically, recognizing the three stages identified by Dörnyei and Ushioda (2013) in their review of the history of motivation in SLA: the social psychological period (1959-1990), the cognitive situated period (1990-2000), and the process-oriented period (2001-present). Special attention will also be paid to the most recent developments in SLA motivation (from 2015 until now), as outlined in Dörnyei (2019).

### 2.2.2.1 The social psychological period (1959-1990)

Gardner and Lambert's "Motivational variables in second-language acquisition" from 1959 is widely considered the seminal work on motivation to learn an LX and, as such, it is regarded as the foundational piece of the social psychological period (Dörnyei, 2019). These authors were the first proponents of the need to develop a motivational system framework to accommodate the variety of sociocultural factors at play in language learning, something that is not as relevant in other areas of study devoted to conceptualizing human motivation. This early study and successive follow-ups-Gardner
and Lambert (1972), Clément et al. (1978), and Gardner and Smyihe (1981)—led to the formulation of the SEM in 1985.

Gardner and Lalonde (1985) offered a succinct definition of the most characteristic aspects of this model:

A socio-educational model of second language learning suggests that the learning of a second language involves both an ability and a motivational component and that the major basis of this motivation is best viewed from a social psychological perspective. p. 521).

Gardner (1985) defined motivation as understood in the SEM model as "the extent to which the individual works or strives to learn the language because of a desire to do so and the satisfaction experienced in this activity." (p. 10).

Prior to the development of the SEM, most studies on language achievement were focused on the cognitive aspects of learning a new language. The target language was a code, and student aptitude to learn that code was the main predictor of success mastering it. Gardner and Lambert (1959) were the first to point out there is also an affective dimension in language achievement, closely linked with motivation. In a response to critics, Tremblay and Gardner (1995) identify three main components of motivation to learn languages according to this model: the effort expended to achieve the goal, a personal desire to learn the language, and satisfaction with the task of learning the language. To measure these three components, Gardner and associates developed the Attitude/Motivation Test Battery (AMTB), which includes scales labeled "motivational intensity," "desire to learn the language," and "attitudes towards learning the language" (Gardner, 1985; Gardner et al., 1979). Key to this model is the conviction that effort alone cannot predict or describe motivation because learners might "expend considerable effort to please a teacher or parent without any real motivation to learn the L2" (Tremblay \& Gardner, 1995, p. 506). Many LX teachers could attest to the existence of emotional factors in L2 learning motivation before the SEM was formulated but being the first to articulate it is not exempt of merit. Doing so implied creating a theoretical framework and research instruments to
measure something as fleeting as affect, subjectivity, and emotion-something traditional Cartesian science had historically overlooked.

Gardner's model is a dynamic one, in which attitudes towards the language learned, attitudes towards the speakers of that language, and attitudes towards the learning situation, along with motivation, have an impact on language achievement. However, language achievement itself can also influence the learners' attitudes, which means that no variable in this system is static. Taie and Afshari (2015) characterized the emotional component of Gardner's SEM as focused on language not just as a cognitive skill, but also as a behavioral aspect characteristic of a distinct ethnolinguistic community. As a result, learning a language is not just memorizing sets of vocabulary, mastering grammar principles, and practicing pronunciation. It also requires learning, and accepting, the characteristics of another cultural community. Based on this principle, having a positive attitude towards the ethnolinguistic community associated to the target language must be a factor in language motivation. Gardner termed this integrative motivation (INT). According to Tremblay and Gardner (1995), INT "refers to an open and positive regard for other groups and for groups that speak the language" (p. 510). The AMTB assesses INT in three of its measures: attitudes toward the target language group, interest in foreign languages, and integrative orientation. The other set of attitudes important in the SEMattitudes towards the learning situation-is assessed by the measures of attitudes towards the language course (instruction) and attitudes toward the language teacher (instruction).


Figure 2. Basic formulation of the SEM and its context

From its initial formulation in 1985 all throughout the 1990s, the SEM experienced criticism from the authors who characterized the cognitive situated period that would follow. Gardner and associates worked on expanding and adapting the model to respond to this criticism when deemed appropriate. Two of their reforms, in particular, stand out. One implied differentiating two sets of variables: those reflecting motivational behavior, and those reflecting motivational antecedents. Motivational behavior variables are the most traditional ones and can be equated to the common conception of what effort is when learning something. The SEM labels it "motivational intensity" (Gardner \& Tremblay, 1994, p. 361). As per the motivational antecedents, these are factors that are not immediately obvious to an external observer (such as a researcher), but that still influence either cognitive or affective motivational behavior, including self-efficacy, causal attributions, and goal setting. Another of these reforms was the introduction of the dynamic nature and bidirectionality of attitudes and achievement. Gardner (2000) outlined a new outlook in his model that reflected a bidirectional correlation between INT and attitudes toward the learning situation (highlighting the potential influence of the LX
instructor on the evolution of the attitudes LX learners have towards the ethnolinguistic community associated with the given LX). Over time, these two constructs, along with other types of external support, would influence motivation, which along with language aptitude and other factors would predict language achievement.

Taie and Afshari (2015) make a critical appraisal of the SEM, identifying a few strong points in the model. The first point they highlight is that it provides a corpus of scientific and empirical studies supporting it. By creating a well-defined system, associated with an instrument as popular as the AMTB, the SEM allowed the validity of LX motivational research to be assessed for the first time by comparing the results of separate, analogous studies. To further enhance the validity of findings, Gardner (2010) considered the graphical representation of the relationships between the variables studied (see figures 2 and 4) to be fundamental, enabling future researchers and readers to verify the validity of the results obtained through this model more easily. Another strength of the SEM, according to Taie and Afshari (2015), was that it provided a "realistic" (p. 609) model of motivation to learn LX. They consider it realistic because of its dynamic, non-static nature, which reflects the dynamic nature of attitudinal and affective processes. Finally, these authors consider the SEM provided a useful and practicable model that, despite existing criticism, can still be applicable in multiple contexts. These contexts include EFL (learning English in countries in which there is no significant group of English speakers, such as in Italy or Morocco) and ESL situations (learning English in countries in which English is the first language of a sizable number of speakers, such as in the U.S. or Canada).

The SEM continues to be a popular framework and many current studies on motivation to learn LX still use the AMTB as an instrument. However, it received early criticism during the cognitive situated period (1990-2000), when new studies on motivation were conducted based on cognitive theories in educational psychology. It is important to note that, despite this criticism, the link between attitudes and motivation has retained relevance among researchers studying motivation to learn LOTEs. Since 1990, INT has been studied from many perspectives, including race, home language, gender, and globalization, among others. One such example is MacIntyre and Charos (1996), which attempted to integrate Gardner's SEM and MacIntyre's willingness to communicate (WTC) (MacIntyre, 1994) constructs. They found that attitudes and anxiety set the
psychological context for language communication. According to their findings, INT and attitudes towards the learning situation have an impact on the activity level of the learner in formal and informal situations. The study also echoes the findings of Horwitz et al. (1986) and MacIntyre and Gardner (1989) about anxiety correlating negatively with grades and output. MacIntyre and Charos (1996) connect the factors described above with global personality traits, so attitude towards the learning situation (ALS) connects singularly with conscientiousness, and INT connects with emotional stability and agreeableness. FLCA, on the other hand, connects with extraversion, and interestingly, it shows a slight correlation with perceived competence and INT. This study took place in Ottawa, with English L1 students learning French. They used the AMTB to measure INT, ALS, and FLCA. They managed to replicate the original results obtained by Gardner (1985), with INT and ALS underlying motivation; the first had a correlation factor of .72, and the second a weak .19. Both INT and ALS are mutually correlated at .60. The results MacIntyre and Charos collected served to strengthen the connections between factors already described in the seminal study by Gardner and other models, which opened the door to future research further exploring Gardner's original variables and their connections with other motivation and performance criteria. One element left unexplored in the study was the sociolinguistic situation of the target language, French, from the learners' perspectives. In this case the learners were young English speakers from Ottawa, the federal capital of a contentiously bilingual country.

A study using the SEM to measure motivation to learn global English is Yashima et al. (2004). It explores the relationship between attitudes, affect and WTC among Japanese learners of English. They slightly modified their attitudinal construct by replacing the traditional definition of INT with what they call "international posture" (p. 120). They justified this change due to the fact English is perceived in Japan as an international language that can be used to communicate across East Asia, and so the traditional definition of INT does not hold the same relevance for learners there. MacIntyre et al.'s (1998) WTC concept is important for measuring the true impact of language instruction in places in which it is part of compulsory education and measures the degree to which learners develop applied skills, such as communication, beyond the traditional focus of this type of instruction on the academic side. The hypothesis, like MacIntyre and Charos' (1996), is that students with a higher level of sympathy for the target group (in this slightly
modified design, students with more international orientation) are more willing to communicate using the L2. Their experiment had two different samples, and their instrument included six items focused on interest in international vacation or activities, and two items focused on interest in foreign affairs. The results of the experiment conclude that international orientation does predict a higher WTC and correlates positively with motivation and confidence.

Other recent studies continue to find connections between positive attitudes and positive outcomes. For example, Cochran et al. (2010) suggest a correlation between increasing positive attitudes towards the target language and its speakers and achievement gains. De Smet et al. (2018) indicate that target language perception appears to play a major role in student emotions in immersion courses, with French L1 Belgian students performing better in English immersion classes than in Dutch immersion classes due to this factor.

### 2.2.2.2 The cognitive situated period (1990-2000)

The authors relevant during this period, such as Crookes and Schmidt (1991), Dörnyei (1994a, 1994b), MacIntyre (1994), Oxford and Shearin (1994), and Ushioda (1996a, 1998), among others, made the case for the need to study motivation to learn other languages from different angles. As a summary of the spirit of motivation research in this period, MacIntyre et al. (2001) wrote, "Gardner's theory put too much emphasis on the integrative and instrumental distinction and tended to ignore a list of variables from the broad psychological literature in motivation." (p. 373). Generally, these researchers were critical of Gardner's model because it was simplistic and unable to integrate the findings in general motivational theory achieved by cognitive psychology of the 80 s and 90 sfrom Bandura's self-efficacy through Zimmerman's self-regulation, including the expectancy-value, attribution, self-worth, self-determination, and goal theories briefly described previously. Finally, according to these authors, with the rise of global English as the most studied LX language on the planet, an easily identifiable ethnolinguistic community of native speakers of that language was diluted, affecting the SEM's core concept of INT.

These researchers moved the focus away from the community and the social context of learning a new language-an approach that had been thoroughly dominant in the field until then-and put it in the classroom instead. They began to explore the needs of people directly involved in the SLA process: students and instructors. Dörnyei (1994a), for example, delineated three levels of motivation focused on:

- The language, in a socio-educational dimension very similar to Gardner's SEM.
- The learner, and their personal characteristics, from a cognitive-psychological perspective.
- The learning situation, including contextual factors such as the instructor, the content and design of the course, and the interactions between learners.

Guerrero (2015) summarizes the contributions of SLA motivation researchers of this period as transitioning perspectives of language learning motivation from the more general to the more specific. The result was the opening of new areas of study that had previously escaped the attention of the SEM, and new instruments for measurement. The analysis of the data collected with these new instruments and paradigms brought attention to new approaches from learners and instructors to understand motivation to learn a language better and to develop best practices to support it.

Dörnyei (2019) identifies four main drives inspiring the research of the authors in this period, which still inspire SLA motivation research today. These drives are:

- The desire to increase the educational relevance of LX motivation research
- The desire to synchronize LX motivation research with advances in educational and motivational psychology
- The desire to view LX motivation from a holistic and dynamic perspective
- The desire to understand long-term motivation and sustained motivated behavior.

These drives inspired a series of new focuses, such as strategies to generate student motivation (Alison, 1993; Chambers, 1999; Dörnyei, 1994a; Williams \& Burden, 1997); willingness to communicate (MacIntyre, 1994; MacIntyre et al., 2001); and connections between motivation and other sciences, such as neurobiology (Schumann, 1997).

### 2.2.2.3 The process-oriented period (2001-2015)

According to Dörnyei (2019), the contextual approach to the study of SLA motivation during the previous period raised awareness of the temporal dimension of motivation. He states, "When motivation was examined in relation to specific learner behaviors and classroom processes, one could not fail to notice the considerable fluctuation in learners' motivational dispositions exhibited on an almost day-to-day business." (Dörnyei, 2019, p. 49). This awareness brought about a new focus that would dominate SLA motivation research in the 00s and beyond - the process-oriented approach-to help account for the fluctuations of individual motivation to learn a new language.

Dörnyei and Ushioda (2013) highlight three influential new perspectives during the early years of this period. Williams and Burden (1997) conceptualize motivation for engagement (decisions, intention, and wishes) and motivation during engagement (behavior and feelings in the classroom). Ushioda (1996b) focuses on the dynamic nature of a learner's motivation, and the influence of learning experiences and goals. Finally, Dörnyei and Ottó (1998) propose a two-stage approach: an action stage in which goals translate into intention and achievements, and a motivation stage in which individuals set goals, make decisions, and react to external feedback through the lens of their personal beliefs.

The most relevant development during this period was the introduction of the first alternative general model of SLA motivation that would successfully challenge the dominance of the SEM: the L2MSS. This model was based theoretically on then-current cognitive psychology, such as the cognitive theories highlighted in the previous section and others like Markus and Nurius' (1986) theory of possible selves as a bridge connecting an individual's self-perceptions and future actions. Csizér and Dörnyei (2005) made the case again that the rise to relevance of global English had rendered the concept of INT obsolete, and LX motivation studies should adopt a different framework when studying motivation to learn this language. Dörnyei, Csizér, and Németh (2006) present the results of a large survey on motivation in SLA from over 13,000 Hungarian teenage learners, with data collected in 1993, 1999, and 2004. The purpose of this macro study was to contrast the relationship between socio-political change in Hungary and the variety
of interest levels among Hungarians in learning English, German, French, Italian, and Russian. This study is, in a way, a test of the concept of INT as a foundation for motivation to learn a language, but the central focus of the analysis is exploring two conceptual areas-the incipient L2MSS and the impact of intercultural contact on attitudinal and motivational change over the years. The authors insist on the ambiguous nature of Gardner's definition of integration-related terms, and the lack of obvious parallels in any area of mainstream motivational psychology. They conclude that by 2004 English was studied in Hungary because it had become an obvious and self-evident component of education in the $21^{\text {st }}$ century, due to the rise of global English to prominence, hand in hand with globalization. Since the benefits of studying this language are self-evident, social integration with its perceived community of speakers loses relevance as a motivator. Consequentially, the best framework to understand motivation to learn this language is the L2MSS, as it understands motivation from the perspective of an individual's needs and goals.

The model was fully developed on a theoretical level over the course of a few years after this seminal study. Dörnyei (2009) describes the L2MSS as a paradigm shift that offers theoretical and empirical reworkings of LX motivation. He argues that motivation to learn another language is better understood if we put the focus on the imaginary "possible selves" (p.10) perspective as experienced by the learner, instead of an imaginary community of L1 speakers. They believe learners experience an internal process of identification with their own self-concept, which is divided into an ideal L2 self, and an ought-to self. The learner's ideal L2 self is from where the learner envisions their language learning potential and from where they aim to move through the study of an LX language. The ought-to self, on the other hand, refers to the learner's beliefs about the LX learning expectations placed on them by society and their social circle, and the LX learning experience, in which motivation is impacted by the learning situation, which includes aspects such as the teacher, curriculum, peers, and the experience of success in the classroom context. In the L2MSS, the ideal self replaces INT, the ought-to self replaces instrumentality, and the learning experience replaces the ALS. The ideal self has a promotion focus, representing the desired state the individual would achieve if their goals were fulfilled, whereas the ought-to self has a prevention focus, highlighting the potential negative consequences for the individual in case of failure to achieve their goals.


Figure 3 Graphical representation of the L2MSS. Source: Yarwood (2018)

The proponents of the L2MSS identify five specific conditions that govern the self concept, either enriching or hampering motivation:

1. Not everyone has the same ability to create effective possible ideal selves. Once such a self-image is established, it must be elaborate and vivid in order to be an effective motivator. This condition is susceptible to intervention by the LX teacher, who can contribute to maintaining this self-image vivid by providing stimulating input and reinforcement.
2. Possible selves only have value when the learner believes in them, and the likelihood of their attainment is perceived as plausible. They are not just fantasies or dreams. The ideal self and ought-to self may conflict with each other. When they are in harmony, and the two selves align, the efficacy of each as a motivational tool increases.
3. The possible self is not always activated in working memory, but reminders, classroom activities, and self-relevant actions can prompt its activation. Hence, both instructors and learners can intervene in the activation of self-concepts to positively impact motivation.
4. For potential motivation to become true motivation, learners must have procedural strategies that go beyond the imagery element, such as an inventory of applicable plans to achieve such images, and procedures to implement those plans.
5. For ideal and ought-to selves to function optimally, there must be a feared self, which focuses on the potential outcome that could impact the learner if ideal and oughtto selves fail to materialize.

By 2009, the L2MSS already had its own instruments and empirical studies supporting the construct and was quickly becoming the most dominant framework from which to study motivation to learn English LX. Like the SEM, the L2MSS is not static, and as the research construct has expanded and the model has been applied in new empirical situations, new data has been used to refine the model. Equally, the dominance of L2MSS as a framework has also sparked some criticism. Chiefly, many authors find the conceptualization of the ought-to self is too simplistic and fails to properly explain how the different forces behind it affect learning motivation-particularly when trying to learn LOTEs. These objections will be discussed in more detail in further sections of this literature review.

Along with this new general model of language learning motivation, the process-oriented period brought about multiple lines of research devoted to studying language learning motivation in context specific situations. Dörnyei (2019) identifies the following lines of research:

The study of demotivating influences in the SLA classroom: This line of research was first explored in Dörnyei (2001), which discusses an exploratory study conducted in Hungary in 1998. Kim and Kim (2013) is another influential study pertaining to this area.

Motivation and group dynamics: The influence of the social context of the classroom group on motivation had traditionally been overlooked. It was during this period a few publications raised awareness of the positive influence of positive group dynamics on classroom events threatening to teachers' control of the learning environment. These dynamics facilitate the development of group structures that may bolster motivational conditions. Some of these studies are Chang (2010) and Dörnyei and Murphey (2003).

The dynamic nature of motivation, cognition, and affect: Several studies during this period raise awareness of the nature of these three principles, which arguably represent dynamic subsystems in continuous and complex interaction with each other. Some of them are Buck (2005), and Dörnyei and Ushioda (2013).

Concordant goals and vision: The understanding of the importance of goals as a source of motivation in both current cognitive psychology and the L2MSS construct brought about an interest in fostering student vision. It is understood as the mental image of the experience of successfully accomplishing a goal (Dörnyei 2019). Some relevant studies in this area are Fukada et al. (2011), Mackay (2014), Magid and Chan (2012) and Sampson (2012).

Proponents of the SEM reacted to the criticism posed by cognitive situated authors in the 1990s and continued to update the construct through the next decade. Researchers like Gardner, Masgoret, and Tremblay in 1994, 1995 and 1997, respectively, continued to be influential and widely cited. Masgoret and Gardner (2003) published a comprehensive summary of SEM research up until the early 00s. It is a metadata study of previous results obtained by Gardner and associates using the SEM as framework. This study intends to clarify the apparently inconsistent results obtained since the model was initially put forth when published in 1985, and to confirm the model's relevance. The studies reviewed measure the impact of INT and ASL in students' motivation and/or results in learning an LX, using the AMTB as an instrument. The metadata is composed of 75 independent samples, totaling 10,489 individuals (Masgoret \& Gardner, 2003, p. 169). The results show that motivation is more closely related to achievement than to attitudes. However, INT, interest in foreign languages, and evaluation of the teacher and the instruction are closely correlated with motivation, with the latter being the most relevant factor. This metadata study concludes that correlations are consistently positive between the indicators exposed above, motivation, and positive results. However, age, or student environment do not intervene significantly in the results. INT and achievement's correlation is between .17 and .26 . In view of this data, the authors believe the study demonstrates the validity of the SEM to explain the factors behind motivation to learn languages.

Gardner and associates continued publishing similar studies with students from all over the world, including English LX as a target language. One such study was Bernaus and Gardner (2008) in which they analyze the relationship between the instructor's motivation strategies, student affective values and motivation with English achievement in high school students from Catalonia, Spain. They measured their INT, ALS, motivation, and classroom anxiety using an adapted version of the AMTB. The results indicate diverting
perceptions among faculty and students regarding the strategies used by the former. They also found that motivation predicts success (. 326 positive correlation), while INT correlates very strongly with motivation (.863) and negatively with FLCA (-.277). ALS is similarly correlated with both (positively with motivation and negatively with FLCA), and it correlates positively with INT (.480). A limitation of their study is the short number of items in the reduced version of the AMTB presented to students, which left more room for the influence of common measurement variance.

Gardner and associates used the findings in these studies to tweak the reformulations of the SEM in 2006 and 2010. In his 2006 review, Gardner introduces the distinction between formal and informal context in his characterization of motivation and differentiates linguistic and non-linguistic outcomes. As per the variables that influence motivation, he divides them into those pertaining to the educational setting, and those pertaining to the cultural context. The cultural context, for example, includes variables as diverse as cultural beliefs about language learning, family, language history, gender, and personality characteristics. In this version of the SEM, INT and ALS continue to be correlated variables that operate as the foundation of motivation, with these attitudes and aptitude being the two variables that would, in turn, influence language achievement. It should be noted that instrumentality appears as a factor that may influence motivation, but not with the same intensity as the two variables stated above. Language anxiety, a negative emotion, appears as a moderating factor in language achievement, and can be associated with the classroom experience, or the use of the target language in nonclassroom settings.


Figure 4: Latest formulation of Gardner's SEM
One interesting aspect of the SEM is how a negative emotion, FLCA, finds and retains a role in all SEM constructs overtime. Gardner's definition of FLCA is "a situational form of anxiety associated with learning and using a second language" (Lalonde \& Gardner, 2003, p. 112). He believes this type of anxiety is different from trait anxiety, or the anxiety experienced in different contexts. The concept of FLCA according to other authors will be discussed further in section 2.3 within this chapter.

### 2.2.2.4 Latest trends in SLA motivation (2015 - present)

The last few years have brought about new studies in the research lines that originated in the preceding period, such as:

- Pinner (2016), Lamb (2017), Song and Kim (2017), and Henry et al. (2018) on motivational strategies and demotivating factors.
- Sasaki et al. (2017) and Dörnyei and Muir (2019) on the impact of group dynamics on motivation.
- Schumann (2017) and Thorner and Kikuchi (2019) on motivation and neurobiology.
- Mackay (2019) on the benefits of visionary training on learner motivation.

However, new research lines have also been opened, including the small lens approach, motivational adaptations, and motivational narratives in dynamic models of motivation. Directed motivational currents and new perspectives on the L2MSS are also remarkable new lines of research. A succinct description of these novel approaches can be found below:

The small lens approach (Ushioda, 2016): Ushioda (2016) proposes an alternative research agenda for motivation on SLA, apart from the traditional focus on learning and teaching processes at the general level. Ushioda believes that by switching the focus to highly contextualized lines of inquiries, we will learn about specific aspects of SLA and proficiency development that otherwise go unnoticed in traditional motivation studies, which are too focused on global behaviors and achievement outcomes. Whereas general studies focus on time spent on a task, or degree of persistence or withdrawal from learning, the micro level interaction between motivation and internal psycholinguistic processes remain comparatively unexplored. Her work also proposes expanding the ranks of researchers undertaking these studies to include teacher-researchers and studentresearchers at the master's level.

Ushioda proposes three new lines of research. The first one is the exploration of the concepts of noticing and attention in line with Takahashi (2005) who studied the role those two concepts have on allowing learners to process pragmalinguistic features of the target language. The second implies studying the interactions between motivation and metacognition, beyond personally valued goals or ideal self aspirations. For Ushioda, learners need motivation, among other things, to coordinate strategic thinking processes for self-regulating learning and to confront the challenges they encounter in the process. Most learners think strategically to bring learning goals to fruition and to overcome the
obstacles that come up in the process, but those skills may not be deployed without specific motivation to do so. She refers to this as the integration of will and skill. She believes this line of research would be ideal for teacher-researchers. They are in a unique position to record teacher-learner interactions around cognitive or linguistic difficulties. She recommends contrasting learner perceptions and recorded interactions to increase the understanding of how students deploy these problem-solving skills both in individual student-teacher interactions and when working with peers. Her third proposed line of research explores how motivation is related to specific classroom events, such as the introduction of new types of learning activities, unexpected interruptions, heated exchanges, off-task behaviors, or silence in response to a teacher question. She labels these events "critical episodes" (Ushioda, 2016, p. 571) but leaves a precise definition of them up in the air.

Ushioda also recommends multidimensional analyses to understand individual behavior in these kinds of situations better, merging researcher observations in context with subjects' self-reports. Since the definition of critical episodes is loose, exploratory practice is particularly helpful for teacher-researchers to identify the specific events worth studying through this research approach. Another benefit of this exploratory practice method is that the resulting research also serves an immediate pedagogical purpose, as findings can directly affect teaching practice. Finally, the author believes once a sufficient corpus of studies on critical events is accrued, there is a chance of finding motivation patterns across the context of an individual teacher's practice, and context-specific classroom situations. Some early critics adduced these findings may not reach a wide audience if, as Ushioda proposes, teacher and student researchers are the ones undertaking these studies but, in her defense, one could argue it is fine for context-specific findings to just bring solutions for context-specific problems. In addition, Ushioda herself claims the possibilities for publishing this kind of research is likely to grow in coming years.

Motivational adaptations and motivation narratives in dynamic models of motivation (Dörnyei \& Ryan, 2015; Lou \& Noels, 2017; Papi, 2018): Dörnyei and Ryan attempted in 2015 to undertake the challenge of developing a theory mapping the dynamic interactions between learners' individual differences, personality characteristics, and learner attributes. They found responses in McAdam's big five model (McAdams \& Pals, 2006). Out of the five personality traits outlined in this model (extraversion,
agreeableness, openness, conscientiousness, and neuroticism), Dörnyei and Ryan believe the three middle ones are of particular interest for their dynamic model of motivation. They argue that these three characteristics provide the foundations for learners' dispositional traits, characteristic adaptations, and integrative life narratives. Whereas traditional SLA motivation research has focused on the second element of this three-tier framework (motivational adaptations), Dörnyei and Ryan believe paying attention to all three tiers would allow for a more holistic understanding of more stable motivational traits and narratives. Two motivational traits that have already inspired a few studies are language mindsets (Lou \& Noels, 2017; Waller \& Papi, 2017) and promotion or prevention-specific regulatory focus (Han \& McDonough, 2018; Papi, 2018). Dörnyei (2019) argues these lines of research have the potential to find links between different layers of motivation that are usually studied separately, in addition to new links between motivation, and cognitive and emotional factors.

Directed Motivational Currents (Henry et al., 2015): The last example of recent lines of research in SLA motivation is Henry et al. (2015), who set forth directed motivational currents (DMC). These authors conducted an empirical study to understand these currents, defined as "a prolonged process of engagement in a series of tasks which are rewarding primarily because they transport the individual towards a highly valued end" (Henry et al., 2015, p. 330). The first component of the DMC construct is goal/vision orientedness (p. 330), and it requires the presence of a clearly defined goal, target, or outcome. The second is a salient facilitative structure composed by stages in the process of accomplishing the goal. This component comprises three elements: sets of recurring behavioral routines performed with volition control, processes of regular progress checks, and discernible start and end points for each stage and the process. The third component is positive emotionality, which is understood as the enjoyment a learner experiences performing the activities recognized as helping the individual achieve their goal. The authors try to differentiate their definition of enjoyment in DMC from other existing definitions in the field, conceptualizing it as associated with isolated learning activities. They argue that because these goals are linked to identities, and to a sense of actualizing the learner's potential, learning and success can be understood as generating experiences of intense personal pleasure, satisfaction, and fulfillment. These researchers' definition of enjoyment is thus inspired by the concept of Eudaimonia present in Waterman (2008),
as "a constellation of subjective experiences including feelings of rightness and centeredness in one's actions, identity, strength of purpose, and competence." (p. 236). In DMC, enjoyment, the facilitative structure, and the final goal reinforce each other. This construct is a reminder of the idea of flow applied to LX positive emotionality, as understood by Dewaele and MacIntyre (2014). Flow and DMC both refer to the experience of optimal engagement in an activity, but important differences between them are the nature of the reward and the timescale over which each operates (Seligman \& Csikszentmihalyi, 2000). In DMC, the experience of optimal functioning comes from the sense of being transported towards a highly valued end state of the self, whereas in flow, the state of optimal engagement comes simply for the rewarding nature of a particular task.

To test their construct, Henry et al. (2015) conducted qualitative research exploring motivational trajectories in migrant learners of Swedish LX. The results show how experiencing a DMC overrides tiredness, generates recurring experiences of satisfaction, and systematically gives rise to positive emotions while in the learning process. They also indicate DMC behavior can be sustained, internally and externally, by encouraging and teaching processes of personal goal setting and appraisal, positive self-appraisals made possible by progress indicators, such as good grades in a particular assignment, positive feedback from instructors, and encouraging praise from native speakers of the target language. Despite the limited global impact of the Swedish language, the migrant workers who were the subjects of the study were very likely to perceive learning Swedish as an essential vehicle for social promotion and integration as immigrants in Sweden. This puts them on a similar plane as the Hungarian learners in Csizér and Dörnyei (2005) who had come to assume learning English was a fundamental piece of their education, and their future integration in the professional ranks of society.

The L2MSS is currently the subject of a revision process to try to fit it to other situations in which the target language is a LOTE whose impact on self-promotion may not be as evident as Swedish is in the study above. Dörnyei (2019) himself recognizes the attention brought to the flaws and shortcomings of the L2MSS as it was originally formulated illustrates the flexibility of the model and its role in the continuing search for relevant theoretical paradigms. For him, the L2MSS offers a broad platform for innovation that can accommodate novel theoretical perspectives, in alignment with the spirit of the
motivational renaissance of the 1990s. A cohort of authors and Dörnyei himself have developed concepts like vision, DMC, student engagements, and the anti-ought-to self. The development of these concepts was first inspired by the L2MSS, which they eventually contributed to refining. This ability to inspire new research and use the results to improve the model is the greatest strength of the L2MSS.

### 2.2.3 L2MSS and LOTEs.

In the last decade, proponents of Gardner's SEM, Dörnyei's L2MSS, and more contextual motivation constructs have tried to apply their respective models to the study of motivation to learn LOTEs. The novelty of the L2MSS, and its initial focus on global English as target language, implied that studies inspired by the SEM, and conducted using all or part of the AMTB coexisted with those implementing the former paradigm, particularly during the 00 s.

Some recent studies explore the suitability of the L2MSS to study motivation to learn LOTEs. An important one is Thompson and Vásquez (2015). They study motivational profiles through three current SLA teachers' language learning narratives. The findings of their study indicate the L2MSS underestimates the relationship between the " I " and "other." They consider the "I," as defined by the self-discrepancy theory (Higgins, 1987), as being sufficiently articulated in the ideal self-construct, but the "other" is not properly articulated in the ought-to self, and so it requires reform. Simply speaking, they concluded the L2MSS needs to emphasize the importance of the interaction between the self and its context in forming and maintaining language-learning motivation. This reformulation of the definition helps further develop the framework so that it also considers learners besides those learning EFL. Even though their study has limited generalizability due to the specificity of the subjects, they insist the frequent interactions between environment and motivation present in their accounts should not be ignored. Another important concept advanced in the discussion of this research is how psychological reactance can explain motivation to learn LOTEs in a negative social context, which paved the way to the proposition of a new dimension of the self: the anti-ought-to self.

Ushioda and Dörnyei (2017) bring up the issue of the suitability of the L2MSS to study motivation to learn LOTEs in an introduction to a special issue on the matter by the Modern Language Journal (MLJ) in 2017. They highlight how most $21^{\text {st }}$ century motivation research is focused on English learners, which explains why motivation has focused on notions of self and identity, neglecting the impact of larger contexts on the decision to take on (or abandon) the study of a language. In this introduction, the authors pose two questions: To what degree are current theoretical perspectives adequate to account for motivation to learn LOTEs? What impact does global English have on motivation for learners of other second or foreign languages in a globalized yet multicultural and multilingual world?

To answer these questions, they recommend a two-tier approach originally suggested by Dörnyei (2005), which combines socio-educational aspects present in the SEM with the L2MSS. He recognizes that factors in the sociological, sociopolitical, and educational environment may interact with the individual, cognitive psychology dimensions that inspired the L2MSS when it comes to exploring what motivates people to undertake and persevere in the study of a LOTE. This combination of models may apply to anyone learning a language other than English, but it applies particularly to English L1 speakers when learning additional languages, whether these are foreign, regional, minority, or heritage ones.

Another article in this MLJ issue is Dörnyei and Al-Hoorie (2017). They suggest that current conceptualizations of the L2MSS display certain subtle characteristics that may not be ideal for understanding the motivation to study LOTEs, either because they downplay certain important features that apply to that context, or they lack nuance representing areas where the motivation to learn LOTEs and English diverge. In their criticism, the authors recognize the reductionist picture the L2MSS may have contributed to the study of SLA motivation, but it ignores a significant proportion of the existing forms of language acquisition throughout the world. The article then proceeds to explore five aspects in which the L2MSS fails to provide a sufficiently nuanced representation of areas where the motivation to learn either English or a LOTE diverges:

The confounding interaction between English- and LOTE-related self-images: The authors state how learning LOTEs in non-English speaking countries usually takes place
in parallel to learning English. The result is the development of separate ideal L2 selves, with the English one potentially taking precedence over the other. One positive side of the existence of multiple L2 selves is drawn from Siridetkoon and Dewaele (2018), who found some people turn to an L3 because of their self-perceived lack of competence in L2 English, while others may choose a LOTE because everybody seems to speak English thereby devaluing the goal to learn it. This is reminiscent of an earlier study by Henry (2011), who pointed out some learners may be able to consciously counteract the effects of global English by tuning in to self-knowledge that can reaffirm their L3 self-concept.

The individualistic focus of the ideal $\mathbf{L} 2$ self: For the authors, one of the reasons why Gardner's concept of integrative motivation fell out of favor is the lack of a direct link between global English and a specific target language community. This was behind the reasoning of Dörnyei and Csizér (2002) that the process of identification underlying integrativeness might be better explained as an internal process of identification with a projected future image of the person's self-concept-the ideal L2 self. This emerging individualistic perspective did not favor LOTEs, as they can indeed be associated with a specific community that either speaks or embraces the LX. Failing to account for these specific ties may directly diminish the explanatory effectiveness of the L2MSS.

The different nature/role of the ought-to self in regards to languages that are associated with substantial versus marginal social support: The authors recognize that, even when studying motivation to learn English, the ought-to self dimension has shown limited explanatory power. One reason for this is that most of the ought-to self concept deals with images that are more external, and less internalized than those linked to the ideal self. In the case of LOTEs, the ought-to self is more fragmented than usual, as learning a LOTE attracts support from some social circles, indifference from others, and discouraging attitudes from some such as authority figures (parents, academic advisers, etc.). Dörnyei (2009) and Ushioda and Dörnyei (2009) debate conflicting ideal and ought-to self-images, and deemed them counterproductive, but they were not aware yet of potentially conflicting multiple ought-to self-images.

The different nature of goals in the learning of English and LOTEs: The authors reiterate how taking up the study of English has self-evident benefits, so it does not require special justification. However, most people taking up the study of a LOTE are
expected to provide an explanation for why they are doing so. Since the reasons to learn a LOTE are more specific, researchers may need to employ more subtle instruments and procedures, such as the learners' narrative identity method used in Dörnyei (2017) and Dörnyei and Ryan (2015).

The differing role of unconscious motives in the study of English and LOTEs: The researchers indicate how, according to Zajonc (1968), being repeatedly exposed to a stimulus, both supraliminally and subliminally, leads to a more positive attitude towards it. They call this the mere exposure effect (Dörnyei \& Al-Hoorie, 2017, p. 463), and they assert it benefits the motivation to study EFL because the exposure can make it seem as if everyone is learning it. The ambiguous societal status of LOTE languages, as well as the learner's potentially conflicting relationship with the "ownership group" (Dörnyei \& Al-Hoorie, 2017, p. 464) of the LOTE in question may pose an unconscious issue in LOTE learning motivation that seldom affects ELLs. The authors highlight as well how teaching LOTEs is frequently hampered by limited institutional support, detrimental policy restrictions, and financial cuts (Leeman \& King, 2015), which will evoke negative attitudes in learners on both the conscious and unconscious levels. The presence of these potential unconscious moderating factors is likely going unnoticed in self-reporting instruments.

In conclusion, for Dörnyei and Al-Hoorie (2017), the most relevant aspect of the motivation to learn a LOTE outside of the Anglosphere is the fact that it typically takes place in conjunction with the study of English, which may incur comparisons both at the conscious and unconscious levels, frequently favoring English due to the worldwide prestige of Global English. However, two potential characteristics that may help overcome this is the fact LOTEs are more commonly associated with a specific community, and therefore a positive attitude towards a community may facilitate motivation to learn an associated LOTE. Since the L2MSS does not account for this, MacIntyre, Baker, and Sparling (2017) calls for the inclusion of a new dimension for the L2MSS: the rooted L2 self. Since LOTE learning lacks the default nature of ESL-EFL, acquiring a high level of proficiency in a LOTE is associated with specific and personalized reasons on the part of each learner, such as to connect with one's heritage, or religious or immigration purposes. As a result, language learning is connected with the narrative identity of the learner and, in the case of those who already speak multiple
languages and are undertaking the study of another one, it may justify the development of another dimension of the self: the ideal multilingual self. This dimension would apply to learners who have successfully developed a self-guide from which to draw additional strength and stabilize the various L2-specific self-images.

As per the ought-to self dimension, Dörnyei and Al-Hoorie (2017) recognize LOTEs will be disadvantaged due to the lower level of social support available relative to global English. However, that is far from the only limitation of the traditional conceptualization of this dimension in the context of learning a LOTE. In these learning situations, the ought-to self is likely to have a fragmented nature, becoming a collection of several, potentially conflicting, disparate ought-to L2 self-images sourced by different segments of the social reality of the learner. One aspect of this reality that may benefit LOTE learners' motivation is that individuals high in psychological reactance may take on (and persevere in) the study of a LOTE simply because people around them insist they should not. The authors reference the anti-ought-to self dimension of Thompson and Vásquez (2015). The limited evidence available suggests that the impact of some implicit, notfully conscious factors might play a stronger role in language acquisition than the L2MSS had previously accounted for, and hence they make a call to explore this further in the SLA areas, using the innovative research directed at this matter in mainstream motivational psychology as theoretical background.

Another important contribution to the study of the suitability of the L2MSS to explain motivation to learn LOTEs is Duff (2017). She reiterates the fact most recent research on SLA motivation has focused on English as a target language, but also on relatively homogenous contexts, with traditional high school and postsecondary students in formal education settings. This nearly exclusive contextual focus limits the applicability of findings and theories in LOTE learning contexts, whether the learners are English speakers or not. In her reflection, Duff poses three questions: (1) How is motivation theory evolving under the influence of global English and the sociocultural, economic, and ideological aspects of language learning in diverse contents? (2) What research methods are being used? And (3), how is current motivation research considering multilingual experiences? To respond to these questions, she draws insights from nine of her own articles focused on her research on Chinese LX and other languages. Duff believes the new construct proposed by Thompson and Vásquez (2015) -the anti-ought-
to self-is relevant in cases in which there is social pressure against learning languages. Duff (2017) also highlights the importance of moving past the monolingual learner focus, and pleas for future research to be more aware of language learning motivation in multifaceted, multilingual subjects in diverse linguistic contexts, considering the reality of immigration, indigenous populations, global languages, and local languages. The author concludes with a defense of the L2MSS, despite its need for reform, by stating:
...how students and adults reconcile their own linguistic identities and aspirations, as well as local, familial, sociopolitical, and educational discourses surrounding them, and the perspective of others that bear on their decisions, continues to be a critical topic for educators and linguists. (Duff, 2017, p. 605)

To summarize, although the L2MSS in its original conception shows shortcomings as a general framework to explain motivation to learn LOTEs or multiple languages, its reliance on scientific psychological principles, simplicity, and flexibility allows for epistemological updates to make up for those shortcomings. This has allowed for the formulation of new concepts, such as the ideal multilingual self, rooted L2 ideal self, or the anti-ought-to self, which have helped adapt the general framework to improve the understanding of the motivation in a variety of language learning contexts. However, there is still work to be done to better understand the impact of a fragmented ought-to self dimension in learning LOTEs with low sociolinguistic prestige in the learner's cultural setting. To that end, the study informing this dissertation has included a qualitative element targeted at exploring the complexity of this motivational dimension in students of Spanish at ChSCC. To better illustrate the potential impact of the cultural context for this research, the next section of this literature review is focused on recent research on motivation to learn Spanish LX in the United States.

### 2.2.4 Motivation for English L1 students to learn Spanish in the United States

Dörnyei and Al-Hoorie (2007), Duff (2017), Dörnyei and Ushioda (2017), and Thompson (2017) put the focus on an issue that had been noted by some researchers before: the different roles played by the social context of the learner on both the ideal and ought-to self dimensions of their motivation to learn a LOTE. It is within that context that the motivation to learn Spanish in the U.S. should be placed. This learning situation requires further attention because, firstly, specific research devoted to applying the L2MSS to English L1 Spanish LX learners is comparatively scarce and, secondly, despite its relative privilege compared to other modern languages in American academic settings, the Spanish language's place within this society is ambiguous, at best.

Such studies are rare because those devoted to the study of motivation to learn Spanish in the U.S. have been particularly aware of the social-psychological aspect of that motivation, which has led many to prefer to use the SEM construct instead. One such researcher was Hernández (2006), who implemented the SEM to explore the impact of motivation on American English L1 learners of Spanish in college on their acquisition of oral proficiency. His study inquires on the role of INT in predicting success in the intermediate college Spanish classroom and adds instrumental motivation and the need to fulfill a requirement as variables. He attempts to connect those three variables with the results subjects obtained in a simulated oral proficiency interview (SOPI), and their desire to stay in the Spanish program once the language requirement had been fulfilled. The subjects were students of Spanish 2020 (fourth semester of Spanish) at a Midwestern American university. Hernández's results indicate a positive correlation between INT and the desire to continue in the program past the requirement, whereas reliance on the requirement as a reason to enroll was negatively correlated with the desire to continue. Hernández's study also points out the need to have classroom activities that foster INT, as an avenue to increase success and promote the subjects' original levels of it. His subjects report the need to fulfill the requirement was the most important reason for them to enroll in Spanish classes with the professional benefits of learning this language as second factor. In the second part of the study, INT was the most relevant predictor of students' SOPI scores, whereas instrumental motivation had a limited positive impact, and reliance on fulfilling the requirement as a reason to enroll was negatively correlated
with both SOPI scores and desire to continue. In conclusion, Hernández believes classroom activities that foster INT are key to improving results and keeping students in Spanish programs. Despite the impactful conclusions of this study, it has had a limited impact in American academic circles. Although it was cited by Acheson et al. (2015) and others, it has found limited echo in further studies connecting student affective variables with reasons to enroll in a LOTE class, and persistence on the part of American college students in foreign language programs beyond the requirements.

Another study focused on the cultural context of studying Spanish in the U.S. is Cochran et al. (2010). The authors study the impact that attribution for success, attitudes, and aptitude for foreign languages had on the success of students enrolled in LOTEs in the state of Tennessee. Their results indicate that attitudes seem to lead to aptitude, which then leads to good test grades. Attribution, on the other hand, does not contribute to the prediction. They also observe that gender difference affects grades, with females scoring higher than males. The authors connect attitude and attributions in two ways: (1) the attitude of students towards the task and scholastic competence to overcome its demands (inspired by Onwuegbuzie et al. 2000), and (2) Gardner's view of INT having an impact on motivation and results. Their study also echoes some observations from Sparks et al. (1993) about high-risk students in high school foreign language classes, and how they are more likely to have negative attitudes and perceptions towards LOTE learning. Instead of using a version of the AMTB, they use the FLAPS as their instrument to measure attitudes (Sparks et al., 1993), which is more focused on attitudes towards learning the language than on INT itself. Their findings align with Gardner and MacIntyre (1993): affect impacts learning. They were surprised that attitude was the first variable fitting the model, instead of attributions, as they had hypothesized. They highlight in their conclusions the importance of helping students develop a positive attitude for foreign language course success.

Sociolinguistic perceptions also influence the policies that regulate the study of LOTEs in the U.S., the extent of which was the focus of a study by Rivers et al. (2013). They find there is sustained support for teaching and learning such languages in the country, based on strong grassroots acknowledgement of their value. These results provide a boost to the proponents of LOTE education in the educational policy battles frequent in educational administration across the United States. However, other studies point out the existence of
obstacles along the way, such as the persistence of factors such as cultural isolation and superiority (Acheson, 2004), language-based discrimination (Lippi-Green, 2012), and the emotionally charged impact of Hispanic immigration in the U.S. (Fishman, 2004; Acheson et al. 2015; and Abrajano \& Hajnal, 2015). These factors contribute to the development of a negative perception towards Hispanics and the Spanish language in the U.S. and give arguments to those espousing nativist policies aimed at eliminating or defunding education in this language in this country.

As indicated earlier, the impact of the perception of the target language and its speakers on the motivation of language learners was studied first by Gardner and Lambert (1972), who focused on the impact that the perception of the French language and Canadian French speakers has on Canadian English speakers learning French. Clément et al. (1978) later developed the AMTB to measure that perception. This influential instrument was updated in Gardner (1985) including batteries to measure INT, (attitudes toward the target language group, interest in foreign languages, and integrative orientation), ATS, ATH, and ALS. Acheson et al. (2015) further adapts this questionnaire to measure the attitudes of high school students in public schools of the state of Georgia towards European Spanish and its speakers, and non-European Spanish speakers and their Spanish, among other elements. This is one of the most influential studies behind the experimental design of this doctoral dissertation. They defend an approach to foreign language instruction informed by teaching global and cultural awareness. Their experiment explores the impact of explicit intercultural instruction on the INT and motivation of high school learners of Spanish in the state of Georgia-an area culturally relevant to Chattanooga, Tennessee, which sits on the Tennessee-Georgia border.

They used a modified version of the AMTB to measure INT and instrumental motivation. The study results show a significant increase in positive attitudes, INT, and instrumental motivation in the subjects. The attitudes of the control groups either did not change or worsened over the same period. The relevance of the study's findings is limited due to its exploratory nature (there had not been similar preexisting studies on INT towards Spanish in this part of the country). They point out that a qualitative approach in similar future studies would help provide a deeper understanding of motivation and students' personal values. In conclusion, their study supports the idea that introducing intercultural elements
in the LOTE curriculum can support the development of increasingly positive attitudes towards other cultures, as well as increase the learner's motivation for language study.

The fact it is important for Spanish LX classrooms in the U.S. to devote time and resources to improving attitudes towards the language and its speakers is a clear indicator of the existence of negative perceptions across the American Anglosphere, which coexist with the positive ones reported by Rivers et al. (2013). Five recent studies that further clarify the unique status of Spanish in the U.S. are Leeman and King (2015), Looney and Lusin (2019), Pomerantz and Schwartz (2011), Schwartz (2014), and Thompson (2017). The last one was also part of the MLJ special issue on the L2MSS applied to the study of LOTEs, and even though it is not focused on Spanish alone, it devotes some attention towards it along with other LOTEs studied in the U.S. at the post-secondary level.

Pomerantz and Schwartz (2011) performed research on the self-perceptions of a group of college students as linguistic subjects, who were mostly white and monolingual, in relation to the Spanish LX classes they were taking as part of their post-secondary studies. The authors submit to Davis and Moctezuma's (1999) idea of a "third border" as a tool for understanding how these monolingual English-speaking students constructed and reaffirmed their ethnic, racial, and linguistic identities within the Spanish class, and beyond. Davis defined the concept of "third border" as follows:

For readers unacquainted with the geopolitics of the U.S.-Mexico borderlands, it should be said that there are many San Clementes-temporary and permanent "second border" checkpoints that dot the northern stretches of that region from the Pacific to the Texas Gulf Coast. For those regardless of how long they have been in the United States [sic]. In suburban Los Angeles, New Jersey, and Chicago, for instance, the interface between affluent Anglo majorities and growing blue-collar Latino populations is regulated by what can only be typed a "third border." Whereas the second border nominally reinforces the international border, the third border polices daily intercourse between two citizen communities: its outrageousness is redoubled by the
hypocrisy and can't be used to justify its existence. Invisible to most Anglos,
it slaps Latinos across the face. (Davis, 2001, p. 71)

This resonates with my personal experience when using Spanish in academic settings outside of class time. Many monolingual English speakers react to these instances with a mix of shock and surprise, as if the mere act of choosing to use Spanish conversationally in a perceived Anglo-dominant context transgresses this "third border." One student once commented, after overhearing two colleagues speaking in Spanish, "I felt like I was in the kitchen of the restaurant where I work." (Student A, personal communication, October 2018). For that student, hearing Spanish in an Anglo context felt like a transgression. This interaction partially illustrates why many English L1 learners of Spanish can have simultaneously positive and negative attitudes towards the language they are attempting to learn. For many, it is a useful tool that would enable them to better explore Hispanic spaces, but it is still undesirable or irrelevant within Anglo spaces, which they claim as their own. This same reflection finds echoes in the results collected by Pomerantz and Schwartz (2011).

The point of view of these authors is that, even though foreign language education in the U.S. is usually presented as a chance to enhance intercultural communication, these courses' curricula tend instead to define borders between an English-speaking "we" and a Spanish-speaking "they." The result inadvertently fosters ethnocentrism, isolationism, and paternalism. Textbooks frequently set a clear distinction between learners and users of the language, the latter residing in a world geographically and linguistically removed from that of the former, with little reference to the vast multilingual reality of Spanish and its speakers in communities across the U.S.

In their research, despite subjects being invested in learning Spanish, and expressing positive attitudes towards their Spanish classes, they focused their interest in Spanish from Europe or South America, frequently ignoring U.S. Spanish and considering Spanish in the U.S. the language of the conquered, the colonized, and immigrants. As per García and Mason (2009), Spanish is seen as "a language of poverty." (p. 2). For the researchers, middle-class Anglo-American students perceive two Spanish speakers: the upper- or middle-class native speaker of Spanish from Spain and/or Latin America, who
they expect to interact with during their travels, and the working class, immigrant speaker of Spanish here in the United States. The former speaks a desired variety of the target language, while the latter speaks a tainted, loose, undesirable variety of it. Even though they do not discuss directly the L2MSS, they reflect on cognitive psychology aspects that inform it, such as the contrast between the risk-free linguistic identity of privileged English-speaking students of Spanish and the more troubled identity of heritage learners of the same language, who often experience feelings of anxiety and shame when they study formal Spanish in college. It also helps reinforce this dual status of Spanish in the U.S., as a valuable asset/skill that can assist English-speaking students professionally, and as a condescended-upon sign of identity of a disadvantaged post-colonial minority. In both cases, though, Spanish is the language of an "other."

Schwartz (2014) follows up on this study and contrasts the subjects from Pomerantz and Schwartz (2011) with students from the American Southwest. The findings strengthen the idea that Spanish speakers in the U.S. are perceived as "others," and their language is one of those markers of otherness. White learners of Spanish conceptualize their perception of spoken Spanish in discourses of suspicion and otherness and are very aware of the foreign nature of this language in a "white" public space. For the author, whiteness is an unquestioned normative order that requires the marginalization of non-white populations. This Anglo-white domination has a linguistic dimension that permeates the perceptions of white learners of Spanish. Schwartz (2014) claims, "while students enrolling in Spanish courses are unlikely to self-identify as 'anti-Spanish,' the same feelings are, in general, notably present when students acknowledge Spanish as a local entity." (p. 170). Students' ability to speak standard American English is an instrument of power, and their acquisition of Spanish as an LX is valuable only as a complement of that English proficiency. Their use of Spanish outside of English-speaking circles is, often, a way for them to reclaim the power they feel they lose when they venture into social situations in which Spanish is used and, even though their motivations to learn Spanish are represented as well intended, fear and suspicion are also present in their language learning narratives.

Leeman and King (2015) analyze language ideologies dominant in American English monolingual circles, which, they claim, are behind the conceptualization of heritage language teaching in the United States. The original conceptualization of these classes highlights the prominent position of the majority language, English, as the norm. This
lack of incentive to invest in heritage programs is connected, according to the authors, with language ideologies, but also with the strong emphasis on standardized tests administered in English, which absorb an important percentage of time and resources. Leeman and King (2015) also point out that language discrimination in the U.S. was one of the issues in 1960s civil rights. However, the one nation/one language ideology continues to be strong in this country and, as a result, many state and federal educational policies support English-only education for recent immigrants. These policies establish other languages as "foreign language education" options that are usually only available at the secondary and post-secondary level. Despite the inadequacy of this offering, these same educational policies pay lip service to "the importance of linguistic competence for $21^{\text {st}}$-century competitiveness." (p. 211). Meanwhile, bilingual elementary programs, which teach a part of the curriculum in the students' L1, have received a large amount of negative attention, with voices accusing this model of hampering student assimilation and threatening their academic success. Heritage language classes, on the other hand, are perceived as less threatening, as they only meet a few hours per week, and they are offered at the secondary and post-secondary levels.

A unique aspect of heritage language learning in the U.S. is that the most widely spoken minority language, Spanish, is also the most taught foreign language, which has made the need of heritage programs more apparent when these speakers are enrolled in Spanish LX classes, and their instructors have to face their different pedagogical needs. Finally, the authors indicate how, post 9/11, Anglo-American society became more aware that military, intelligence, and national security agencies had a need for individuals who could speak critical languages, which fueled interest in language education-both as heritage and LX. That factor, along with the ever-growing perception of education as an avenue to obtain job market skills in a global economy, has placed emphasis on learning languages-particularly Spanish—as being valuable primarily within the framework of better serving the security and commercial interests of the nation-state.

The complex situation of Spanish in the U.S. is also discussed in Thompson and Vásquez (2015) and Thompson (2017). In the latter, Thompson researched the relationships between motivation, language choice, and multilingualism among postsecondary students of LOTEs in the U.S. He used three dimensions of the L2MSS to operationalize motivation: ideal (ISM), ought-to (OSM), and the novel anti-ought-to self dimension
(AOSM) and contextualized the results with similar studies performed with ELL subjects. Thompson (2017) recognizes that studying a language in the U.S. is not a simple issue: even though the status of English as the de facto national language is firm, about 400 other languages were spoken at homes in the U.S. according to the U.S. Census Bureau in 2015. It is not uncommon for American universities to require the study of another language as part of the curriculum for certain majors. As Thompson (2017) indicates, the MLA stated that 1,522,070 students were enrolled in a university level LX class in 2013 (that number had declined to $1,417,838$ in the fall of 2016, according also to MLA (Looney \& Lusin, 2018). Thompson echoes how, despite this reality, studies about motivation to learn LOTEs in the U.S. are rare and, as a result, little is known about motivation to learn LOTEs in this important context. Instead, the focus on motivation research in the U.S. is frequently on heritage learners, English L1 learners in study abroad contexts, or motivation impact of the integration of technology in the classroom. Thompson discusses the specific linguistic situation of Spanish in the U.S., indicating how, according to 2011 survey data, there were over 60 million speakers of LOTEs in U.S. homes, 62 percent of which were Spanish speakers (Thompson, 2017, p. 485). This population is more concentrated in large cities and in five states: California, Texas, Illinois, Florida, New York, and New Jersey. Educationally, most K-12 education programs in the country have LX classes as stand-alone subjects, with some also having immersion programs-both total and partial. Forty three percent of K-12 LOTE offerings in the U.S. are in Spanish, with French at a distant second, and Mandarin Chinese, German, and Hawaiian following suit. Same as Leeman and King (2015), Thompson refers to the fact that strategic interest for languages education in the U.S. since $9 / 11$ has resulted in the development of grant-based programs to study critical languages in the US. Examples of such programs are Startalk, the Foreign Language Area Studies FLAS Fellowships, and the Critical Language Scholarship, which have offered courses, funding, and study abroad opportunities to students studying languages such as Arabic, Azerbaijani, Bangla, Mandarin Chinese, Dari, Hindi, Indonesian, Japanese Korean, Persian, Portuguese, Punjabi, Russian, Swahili, Turkish, and Urdu. Despite this interest and support for languages other than Spanish, French, and German, a majority of undergraduates in American colleges study Spanish, even though enrollment has declined since 2009 ( 861,015 enrollees in 2009; 789,888 in 2013; and 712,240 in 2016) (Thompson, 2017, p. 486). This majoritarian preference for Spanish does not erase the
controversial role this language plays in American society, as Thompson agrees the language continues to be perceived as a marker to identify an "other" that needs to be separated from the mainstream.

Given the prevalence of Spanish in American society (compared to other LOTEs), the controversies surrounding it, and the large number of university students studying Spanish, Thompson hypothesized students of Spanish could have unique motivational profiles among language learners in the U.S. and beyond. These profiles might be characterized by conflicts between the multiple selves influencing motivation. However, the results of her study show students of Spanish score similar to students of French, German, and Italian in ISM and OSM, but lower than them in AOSM. The low OSM scores for all imply U.S. students do not feel social pressure to study a language, but instead, many declare they are often questioned in their choices by parents, advisers, and peers-no matter their LX of choice. However, as Dörnyei and Al-Hoorie (2017) predicted, the OSM dimension in these students appeared to be contradicting and fragmented, as that negative pressure shared space in some cases with a family or personal connection with speakers of their LOTE of choice. This is something seldom experienced by students of English in non-Anglophone countries. Thompson (2017) concludes that, because of the status of Spanish as the prevalent LOTE in the U.S., those with less psychological reactiveness (and hence less susceptible to AOSM) may be more likely to take on the study of Spanish as the default option to fulfill a foreign language requirement. This is further reinforced by the frequent perception among her subjects that studying Spanish poses career advantages, which has some parallels with the self-evident nature of English as an LX of choice in the seminal study that led to the formulation of the L2MSS. Among the limitations of her study, Thompson references that it was performed on students at the University of South Florida, an area with a large number of Spanish speakers (and perhaps the region in the country in which Spanish has the highest social prestige). This context was likely to have had an impact on the nature of her subjects' motivation to learn that language as an LX. In the concluding remarks, the author recognizes the potential different underlying reasons for ISM and OSM images when LOTEs are the target languages, including family connection or a cultural attraction. However, more research is needed to fully develop the specific motivation profile of learners of LOTEs in the U.S. in general, and of learners of Spanish in particular.

To summarize, the review of existing literature on motivation to learn an LX points at two dominant frameworks in the past few decades: the SEM, developed in the 1980s and dominant in the 1990s, and the L2MSS, developed in the 2000s and still evolving. Despite criticisms since the early 1990s, the SEM continues to be used by researchers along with its associated instrument, the AMTB, particularly among those interested in the study of motivation to learn LOTEs in North America (Acheson et al., 2015; Bernardo et al, 2014; Cochran et al, 2010; Hernández, 2006; Meyer, 2013). Even though the results of studies applying this model support each other's validity, one issue continues to diminish it: the apparent lack of connection between the principles underlying the SEM, and current explanations of motivation from the standpoint of the field of psychology.

On the other hand, since the mid to late-2000s, the most dominant construct to explain motivation to study an LX has been, and continues to be, the L2MSS. However, the focus by most researchers applying this model has been the study of global English L2, by subjects who often live in contexts in which mastering English is a self-evident, fundamental part of a holistic education. It took a decade for proponents of this framework to raise awareness of its inadequacy, as originally conceived, to explain the motivation to study LOTEs. In the mid-2010s, high profile proponents of the framework proposed the reformulation of existing concepts within one of the construct's dimensions-the OSMand the addition of new dimensions, such as the rooted L2 self, and AOSM. This tweaking of the model intends to apply its validity to new contexts, by helping to understand the unique nuances that affect motivation in students of LOTEs. However, due to their recent formulation, these new conceptualizations have not yet been fully tested.

The current state of the field indicates the SEM and its instrument, the AMTB, may no longer be the most appropriate to explain the motivation to study another language from a scientific standpoint. However, parts of this model have been useful to predict enrollment and persistence in students of LOTEs in Canada and the U.S. through more than three decades of implementation (Acheson et al., 2015; Bernardo et al., 2014; Dörnyei and Ushioda 2017; Meyer, 2013). As a result, given the fact the central focus of this study is not motivation as a construct but the impact it has on enrollment, persistence, and student success, I decided to use the items in the AMTB referring to INT in this dissertation's study to measure students' ATS and ATH. I am hoping the results are useful to test if they are correlated with the decision to enroll in a Spanish LX class while at

ChSCC. There is no intention to attempt to clarify or define the sociolinguistic position of Spanish in the U.S., but simply to measure the impact resulting attitudes may have when students make the decision to enroll (or not) in post-secondary Spanish at ChSCC. Due to the fact it is easy to find ways to complete your studies avoiding foreign language requirements in these educational contexts, it is not far-fetched to hypothesize that these sociolinguistic constraints play a part in learners' constructions of their ideal and oughtto self images. Some of these factors will be overt, like "Spanish is desirable because I am a culturally sensitive adult," while others will be covert.

Furthermore, although the L2MSS may not be the most suitable model (as it is formulated today) to apply to the study of motivation to study Spanish LX in the U.S., it is still the framework most applied in the field today. Moreover, it is grounded on existing scientific consensus like no other motivational construct, and it is an open system. New findings can complement and redefine some of their components to make it more adaptable to new contexts. For that reason, this dissertation will measure motivation using L2MSS instruments to obtain scores for both ISM and OSM. ISM is focused on promotion, and students with a strong ideal self are most likely to use imagery to visualize the type of user of Spanish learner they want to become. OSM, on the other hand, is supposed to be focused on prevention, and is the manifestation of external pressures felt by the student in terms of their decision to acquire and use Spanish in their social circles. Acknowledging proponents of the L2MSS who have raised awareness about the complexity of conflicting views lodged within the OSM construct for learners of LOTEs (such as Ushioda and Dörnyei (2017), Dörnyei and Al-Hoorie (2017), Duff (2017), Thompson and Vásquez (2015), and Thompson (2017)), qualitative data will be collected to help clarify the inner workings of the OSM dimension of the framework. Since the focus of this dissertation is enrollment, persistence, and success, I consider this is not the best place to test the latest-yet insufficiently tested-conceptual propositions, such as the rooted L2 self, or the AOSM. My hope is that a detailed analysis of the results obtained through the standard OSM questionnaire, and an exploration through further qualitative analyses will help shed light on the complexities of the relationships between the different ought-to selves that subjects may construct.

The decision to use elements from both models comes, chiefly, from the need to explain a complex reality. Many different indicators are measured to explain why people enroll
in Spanish, or not, why people drop it, or not, and what contributes to making them successful. INT and attitudes inspired by the SEM may help explain enrollment trends and social perspectives. The L2SMM, on the other hand, may contribute to measuring the impact of other factors, such as an individual's personal interests and linguistic ideologies. Since the study also aims to measure how classroom emotions correlate with persistence and success, learning about what motivates the student internally and socially is fundamental to better understanding the whole context of the subjects' LX journeys.

### 2.3 Emotions in the SLA classroom: anxiety and enjoyment

In 1998, Jane Arnold published "Towards more humanistic English teaching," in which she made a case to reclaim the importance of affect in teaching in general and teaching languages in particular. Her article was not particularly influential or revolutionary, but it is representative of a wave of change in the field of applied linguistics that took place in the second half of the twentieth century, which accelerated through the 1990s and beyond. For decades prior, and well into current times, western scholarship has characterized emotions and affect as weaknesses, or distractions-certainly not the subjects of scientific study, unless approached to be understood, tamed, and repressed, as they were often associated with femininity, failure, and/or a lack of character. Arnold's short article marks one of the early steps in western SLA academia's begrudging trek away from the grasp of the misogynistic and ethnocentric traditions that had characterized European and American scholarship for decades since its Cartesian origins in the 1600s. The traditional suspicion towards emotions is further exemplified by the focus of choice of the first studies correlating language learning and emotions: how to prevent and/or control a negative emotion, FLCA. Awareness of the pervasive effect of this emotion had been present in research for decades, and it had already been central to educational and SLA research since Young and Brown (1973) and Gardner (1985) and had found a place in the conceptualization of this SEM framework.

The 1990s and the 2000s brought about the widespread acknowledgement of the impact of emotion in language learning and teaching, and the need to develop frameworks and research to better understand it. Authors like Block (2003) or MacIntyre and Gregersen
(2012) blame the limited attention devoted to the affective dimension of SLA on the dominance of research focused on learning a language as a mere cognitive process. However, the influence of the L2MSS inspired some authors, like MacIntyre and Gregersen themselves, to devote attention to the impact of positive emotions on language learning. Just as the critics of the SEM in the 1990s had turned to cognitive psychology to find explanations for the shortcomings of the model, MacIntyre and Gregersen also turned to that field to explain the functions of positive emotions in human motivation, achievement, and well-being. They managed to find answers in positive psychology (from now on PP), a relative new branch of this science defined as "the scientific study of what goes right in life" (Peterson, 2006, p. 3). The PP foundational paper, Seligman and Csikszentmihalyi (2000), argues the field of psychology had focused for too long on the study of the wrong, as well as mental illness and trauma, and that PP is necessary to balance the research agenda, increase well-being, and contextualize mental health better.

Inspired by their work and the broaden-and-build theory (Fredrickson, 2001), which states that positive emotions broaden a person's perspective, whereas negative ones narrow it, this new school of research of PP in SLA sought to create a framework to find a balance between positive-broadening and negative-narrowing emotions in the language classroom (MacIntyre \& Gregersen, 2012). In MacIntyre and Gregersen (2012) the authors reflect on how anticipatory emotions are prototypical in the development of the hoped-for and feared future selves. The connection between fear and anxiety on the formation of the feared self had already been acknowledged, which explains the continued devotion to studies on FLCA among proponents of the SEM and the L2MSS. In that context, these authors opened the door to the exploration of the role positive emotions such as joy, pride, contentment, interest, and love play in SLA motivation and acquisition.

Between 2012 and 2015, researchers such as Dewaele and MacIntyre (2014), and MacIntyre and Mercer (2014) undertook journeys along the pathway set by these new lines of research, establishing the foundations for future research of PP in SLA. In this early phase, a foreign language enjoyment scale (from now on FLES) was developed, as an attempt to match the existing FLCAS as a quantitative instrument to measure a relevant positive emotion in the classroom (Dewaele \& MacIntyre, 2014). During this phase of research, several studies pointed out the fact that FLCA was linked with learner-internal variables, such as personality traits (Dewaele, 2013; Dewaele \& Al Saraj, 2015), low
levels of emotional intelligence, low tolerance for ambiguity, and low self-esteem (Dewaele, 2017). Dewaele (2013) also finds a connection between sociobiographical and situational characteristics and FLCA. Meanwhile, FLE was first conceptualized during these early years, with early empirical studies shedding light on the relationship between FLCA and FLE. Dewaele and MacIntyre (2014) find that these emotional dimensions are each independent but also related, and slightly negatively correlated. They also encountered females report higher levels of both.

PP was revamped in 2015, when the so-called second wave of positive psychology (SWPP or PP 2.0) originated (Lomas \& Ivtzan, 2015). PP 2.0 emphasizes the need to integrate positive and negative experiences. It has influenced researchers in this sub-field to embark on the conceptualization of positive and negative processes and the roles that context and culture play to create appropriate theoretical models. These models include Oxford's EMPHATICS framework (Oxford, 2016), with other important developments in Mercer (2016) and MacIntyre et al. (2019). As quantitative research in the field continued, with relevant studies such as Dewaele and MacIntyre (2016), Dewaele et al. (2017), Dewaele and Dewaele (2017), De Smet et al. (2018), Dewaele and Alfawzan (2018) or Dewaele and MacIntyre (2019), there is an increase in qualitative research as well, with Pavelescu and Petrić (2018) as an outstanding example. Starting in 2016, increased attention was given as well to teacher-focused studies, such as Agudo (2018), Mercer et al. (2016), and Mercer and Kostoulas (2018).

Since 2015, the framework for FLE has been further developed, particularly after Dewaele and MacIntyre (2016) pointed out the emergence from data of two dimensions of FLE-a social one (FLSE) rooted in classroom context and a private one (FLPE) rooted in internal feelings. Empirical research has also indicated FLE, unlike FLCA, is more dependent on contextual variables, such as classroom climate, teacher input, and external stimuli such as fun activities, encouragement, and praise. This increased the practical application of PP in SLA research, thanks to a better understanding of the variables behind negative and positive emotions in the classroom. Multiple empirical studies, such as De Smet et al. (2018), Dewaele and MacIntyre (2014, 2016, 2019), and Dewaele and Alfawzan (2018), conclude teachers should focus on promoting FLE, instead of attempting to reduce FLCA, which study after study shows is more dependent on learner-internal variables. Another important contribution of this later phase is the
further development of the idiodynamic approach, which explores the relationship between both dimensions from a dynamic perspective (Boudraeu et al., 2018).

Since 2018, studies applying PP concepts to SLA research have multiplied, many of them empirical, exemplified by the special issue focused on this area published by the journal Language Learning in 2018. The following year brought about an assessment of the state of the field, and suggested lines for future research such as the ones outlined in MacIntyre et al. (2019). This vitality has led authors, such as Dewaele et al. (2019a) to talk about an "affective turn" or "paradigm shift" (p.2) within the study of SLA, associated with the flowering of PP-inspired studies. These claims illustrate a general background that favors a more prominent positioning for the role of positive emotions in learning, which had been neglected its rightful place for decades. The increasing prominence of this line of research has attracted criticism, such as the one in Prior (2019).

The introduction of this third section of the literature review concludes with a summary of the content ahead:

- A conceptualization of human emotions in general
- A summary of the theoretical developments and the findings in classroom emotions studies in the SLA field prior to MacIntyre and Gregersen (2012).
- The early contributions of PP in SLA (2012-2015)
- Current contributions and critique of PP in SLA (2016-present)

Some of the key findings of the literature reviewed in this section are the fact negative emotions hamper persistence and success by narrowing student perspectives, while positive emotions assist them because of their broadening, motivational effect. This research also shows faculty can increase positive emotions such as FLE, as it is reliant on contextual variables, but are not much of a factor in FLCA, more dependent on learnerinternal variables. Given the effect of positive emotions in learners according to PP, the reasons to increasing FLE go beyond the mere academic benefits of such increase, as they also contribute to fostering learners' overall well-being.

### 2.3.1 Conceptualization of human emotions

The preceding introduction stresses how, for decades, western academia had neglected the study of emotions and, in the few cases in which it undertook their study, framed them as weaknesses that needed to be controlled. This neglect and disdain are rooted in trends in western culture characterizing emotion as the weak counterpart of rationality, but they are also rooted in the challenges of articulating scientific research on emotions due to the difficulty in defining and measuring human emotion. The Merriam-Webster dictionary defines emotion as "a conscious mental reaction (such as anger or fear) subjectively experienced as strong feeling usually directed toward a specific object and typically accompanied by physiological and behavioral changes in the body," "a state of feeling," and more interestingly, "the affective aspect of consciousness." (Brown, 2020). Even though the subjective element in the first definition can be problematic from the point of view of traditional empirical research, one wonders about how social sciences have managed to get by for decades ignoring the affective aspect of consciousness.

Prior (2019) echoes the difficulty defining emotions as a dilemma that still hampers research of emotions today. Depending on the research approach, emotions can be categorized in terms of activation, valence, antecedent to actions, bio-physiological changes, and/or reactions to contextual stimuli. Emotions can be observed, communicated, and felt. We can even observe how someone communicates about an emotion he or she is feeling. Prior (2019) adduces this dilemma of how to define emotions can be solved by adopting a functional definition, in which emotions are investigated in terms of how they arise and function in a particular social and environmental context. Adopting that focus, however, is not enough to ignore that emotions are many things, expressed in multiple ways, and are dynamic and constantly shifting, as well as physiological, experiential, individual, and social.

MacIntyre and Gregersen (2012) also struggled with defining emotion, and complained that most existing definitions are circular, linking emotion to feelings, and vice versa. They embraced the multidimensional definition of emotions of Reeve (2005): "Emotions are short-lived, feeling-arousal-purposive-expressive phenomena that help us adapt to the opportunities and challenges we face during important life events." (p. 16). For MacIntyre
and Gregersen (2012), feeling refers to the subjective experience vernacularly equated with emotion. Arousal is a frequent topic on emotional research, which focuses on finding patterns in responses associated with emotions. Purposive refers to the goal-directed nature of emotions and, finally, the expressive dimension refers to the social and communicative aspects of emotions. From these four dimensions, the emotional experience emerges as more than a sum of parts, but rather as a unique experience resulting from their coordination.

Outside of linguistics, Andrieș (2011) offers a summary of the definitions of emotions from the perspective of psychology and neuroscience. As an organizational psychologist, she acknowledges all emotions, positive and negative, have an undeniable impact on human behavior and, as such, should not be ignored in any model regarding motivation and outcomes. Inspired by Fredrickson (2001), Andrieș highlights the benefits of positive emotions in the organizational context, including increased creativity, cognitive flexibility, labor productivity, and professional satisfaction. She also identifies three major groups of theories of emotion: explanatory-interpretative, neurophysiological, and cognitive.

Explanatory-interpretative theoretical models of emotions are one of the earlier frameworks to study emotions scientifically and are linked to Darwin's evolutionary theory. They conceptualize emotions as adaptive subsystems derived from survival needs, or as expressions of inherited programs. Darwin identified eight basic human emotions, with joy and fear as the most relevant positive and negative emotions, respectively.

Neurophysiological theories focus more on the mechanics of emotional arousal and purpose and less on their expressive aspect. They study the organic manifestations of emotions, such as respiratory and heart rates, adrenaline, and dopamine releases, etc., and understand emotion from the perspective of endogenous and exogenous inputs to the nervous system. Some neurophysiological research has a peripheral focus, stating emotions have their origin in peripheral autonomic changes. Others have a central physiological one, studying the individual's self-regulation system as key in the expression of emotion. Recent neurophysiological theories have observed the role of the limbic system in triggering emotional responses. For them, the limbic system deciphers the significance of emotional stimuli, while they admit there are multiple neural pathways
and specialized areas for processing emotional information. One of their most relevant conclusions is that neurophysiological homeostatic mechanisms tend to balance themselves in order to reduce energy, following a natural tendency to maintain emotional responses as constant. Since an intensity of feelings that is too low or too high has an impact on emotional stability, individuals will be motivated to modify their context in search of that homeostatic balance.

Myers (2004) identifies two major classical physiological theories of emotion: JamesLange, and Cannon-Bard. The James-Lange theory formulated independently by the two researchers in its name, argues that emotions are physiological reactions to events. An external stimulus leads to a physiological reaction, and the individual's interpretation of it mediates the emotional reaction. Based on this theory, an individual's heart rate does not go up because he or she is scared, but because he or she interprets fear because their heart rate is up. The Cannon-Bard theory is a reaction to the James-Lange one and claims physiological reactions that are usually linked to emotions can occur independently of those emotions. According to this theory, emotions and physiological reactions occur simultaneously, and they both occur when the brain receives an environmental signal (which triggers an emotional response), while the limbic system triggers a physiological reaction.

Another relevant neurophysiological approach is embodied by the theory of discrete emotions (Izard, 1991, 1993). This theory understands emotions as a complex system, characterized by the interaction between neurohormonal components, expressive behavior, and empirical experience. Each emotion is a system with heterogeneous, highly individualized expressions conditioned by other emotions, but retains its individuality. These interactions form contingent emotional patterns that, through repetition, become stable over time. As a result, individuals develop emotional systems to respond to specific situations, thereby forming and strengthening neural pathways that link the elements of emotional experience. Emotions are also connected, and interact, with other systems, such as the motivational and cognitive dimensions of the individual. According to the theory of discrete emotions, positive emotions, such as joy, tend to activate other emotions of the same type (optimism, satisfaction), whereas negative emotions, such as anger, frequently activate other negative ones (disgust, contempt).

Finally, another relevant neurophysiological theory is the theory of affective primacy (LeDoux 1996; Zajonc, 1980). This theory argues emotions can be triggered before the stimulus and the individual's rational assessment of such stimulus can be independent from both. They based their theory on neurophysiological evidence that the amygdala can produce emotional responses in circuits not connected to information processing. To support their perspective, they proposed conducting experimental research with subliminal stimuli (Zajonc, 1980). The most salient feature of this theory is the perspective that an individual's emotional reaction to external or internal stimuliincluding emotional processing and responses-takes place unconsciously.

Cognitive theories. Cognitive psychology has devoted an important amount of research to emotions and has developed multiple frameworks to understand them. What these frameworks have in common is a focus on the role of cognitive factors and rational assessment of stimuli at the onset of emotions. They believe cognition can influence the dynamics of emotional experiencing, by shaping it or changing it based on goals. The stimuli per se is not as important as the role the individual assigns it through rational meaning. In its conceptualization of emotion, the field of SLA has been heavily influenced by these cognitive frameworks and its key focus has moved away from seeking to understand emotion itself and moved towards exploring the roles these emotions can play in individual goal achievement. Emotion is then understood as one more variable susceptible to positive and negative influence.

According to Myers (2004), relevant cognitive theories of emotion are the SchachterSinger theory and the cognitive appraisal theory. The former is also known as the twofactor theory of emotion. Their proponents believe physiological arousal to a stimulus occurs first, and then an individual needs to process and interpret the arousal cognitively to experience and label it as an emotion. The most relevant aspect of this theory is the importance it gives to cognitive processes as mediators between stimuli, physiological reaction, and the emotional experience. They believe this helps explain how a racing heart, for example, can be interpreted as either fear or excitement, based on contextual factors that trigger different cognitive interpretations. The cognitive appraisal theory (Lazarus \& Folkman, 1984), states thinking predates the experience of an emotion. Stated simply, these authors propose that a stimulus triggers a thinking process, which leads to the simultaneous experience of a physiological response and an emotion.

Another relevant cognitive theory of emotions is N. Frijda's (1987), which emphasizes the role of situational antecedents of emotion and overall assessment of the significance of the stimulus on multiple levels: conscious-unconscious, sensory, cognitive, affective etc. For him, the emotional experience is a succession of emotional episodes, occurring with great speed, with affective and cognitive evaluations taking place simultaneously. This experience encompasses situational antecedents, stimulus attributes, context, concerns, and timing purposes. These mechanisms of evaluation enable the individual to choose a behavioral response to the emotion.

Based on the theoretical foundations above, Andrieș (2011) claims there are four key components to emotional processes:

- A cognitive or rational evaluation component that interprets the significance of a stimulus on several levels.
- A behavioral component, which includes two dimensions: the expressive, which is external, and the direction of behavioral orientation in terms of stimuli and involvement. In this component, reactions are observable and measurable, and expression is influenced by self-adjustment and self-control. Direction, on the other hand, can have a defensive or constructive approach.
- A neurophysiological component referring to all organic changes that intervene and accompany an emotional process.
- A subjective component, which is the product of cognitive assessment and evaluation of emotional awareness, which can operate independently.

From a PP perspective, Seligman and Csikszentmihalyi (2000) declared a regard for emotion as part of a wider interest in valued subjective experiences, such as well-being, contentment, satisfaction, hope, optimism, flow, and happiness. They identified an individual dimension in these valued experiences, regulated by traits such as capacity for love and vocation, courage, interpersonal skill, aesthetic sensibility, perseverance, forgiveness, originality, future mindedness, spirituality, high talent, and wisdom. They also identified a social dimension, embodied by civic virtues and institutions, and regulated by responsibility, nurturance, altruism, civility, moderation, tolerance, and work ethic. Their conceptualization of emotions is influenced by the existing evolutionary, neurophysiological, and cognitive constructs summarized above, but their
focus is not so much on studying emotions per se, but on understanding how positive emotions and positive psychological interventions can contribute to human well-being in a more impactful way than the usual focus on negativity and clinical intervention to alleviate disorders. They highlight the previous neglect of positive emotions on the part of emotion theorists, who they claimed had been too focused on creating general models of emotions and devoted limited time and effort to the specific study of positive ones.

A key theory of emotions stemming from the PP movement is Fredrickson's broaden-and-build theory of positive emotions, outlined in an influential paper published in 2001. This author claims positive emotions, such as joy, interest, contentment, or love, not only can eclipse negative emotion, and signal optimal functioning, but they can also promote such optimal functioning in the future. She also believes individuals can cultivate positive emotions for themselves and those around them. Traditional cognitive theories of emotion believe emotions, by definition, are associated with specific action tendencies, narrowing possible courses of action to a specific set of options. Fredrickson believes the action tendencies linked to positive emotions are too broad (Fredrickson, 2001). These theories also confuse positive emotions with related affective states and link their function to urges to approach or continue a task. She believes the urges to approach or continue are the lowest common denominator across pleasant affective states and leave other functions of these emotions uncharted. With this critique as foundation, Fredrickson formulated the broaden-and-build theory, which characterizes emotions as fundamental elements of optimal functioning and the central topic for the science of well-being. According to her theory, positive emotions broaden people's attention and thinking, undo lingering negative emotional arousal, fuel psychological resilience, build consequential personal resources, trigger spirals towards greater well-being in the future, seed human flourishing, and generate creativity and resilience (Fredrickson, 2001). She concludes by indicating the cultivation of positive emotions transforms people for the better and sets them on paths towards flourishing and healthy lives, whereas a lack of positive emotions makes individuals lose behavioral freedom and become predictable.

### 2.3.2 The study of emotions in the SLA field: antecedents

The study of emotions in the SLA field began with a focus on a negative emotion, FLCA. Dewaele and MacIntyre (2019) indicated how research in FLCA was abundant in 80s and 90s, whereas research on positive emotions is more recent, dating back to Dewaele and MacIntyre (2014). Some of the key studies on FLCA are Dewaele (2007), Horwitz (1986, 2001), Horwitz et al. (1986), Lu and Liu (2011), MacIntyre (1999), MacIntyre and Gardner (1989), Saito et al. (1999), and Scovel (1978). Some relevant overviews of research on theoretical perspectives and empirical research on FLCA are Dewaele (2017), Gkonou et al. (2017), Horwitz (2010), and MacIntyre (2017). Gkonou et al (2017) recognize the complex nature of anxiety as a human emotion, and how it has consistently attracted the attention of SLA researchers and teachers worldwide since Scovel (1978). Gregersen and MacIntyre (2014) describe FLCA as "the worry and negative emotional reaction when learning and using a second language [...] especially relevant in a classroom where self-expression takes place." (p. 27). Gkonou et al. (2017) indicate the interest in FLCA has evolved over the past four decades in parallel to the general trends in the study of affective variables in SLA. Some landmarks in that evolution are Scovel's (1978) urge for greater methodological rigor when investigating affective variables, Horwitz's (1986) conceptualization of the FLCAS, Arnold and Brown's (1999) and Scovel's (2001) claims that anxiety is the most influential affective factor in language learning, and finally the outset of a dynamic approach to understanding FLCA. The latter approach was inaugurated by MacIntyre and Gregersen (2012b), and Dewaele (2012), inspired by the complex dynamic systems theory (further developed for the FLCA context by MacIntyre et al., 2015). MacIntyre (2017) offers a simplified vision of the history of FLCA research, identifying a confounded approach prior to 1986, a specialized approach inaugurated by Horwitz et al. (1986), and finally the dynamic approach, inaugurated by the work of Gregersen et al. (2014).

Prior (2019) has a different perspective on the origins of the study of emotions in the SLA field. He believes the roots of this research focus run deeper and he identifies Block's social turn (2003) as representative of a diverse body of scholarship challenging the traditional cognitive, experimental, monolingual, and static perspectives in traditional SLA research. However, he manages to find multiple earlier examples of research
devoted to emotions in the field rooted in the educational philosophies of John Dewey and the humanistic and cognitive research of Abraham Maslow. He also identifies the contributions to the study of FLCA indicated above, adding Gardner (1985) and Oller (1981), and inserting FLCA in the general study of reticence, willingness to communicate, attitude, and motivation. Prior also praises the theoretical influence of Schumann's Acculturation Model (1978) and neurobiological approach to affect (1997), Rintell's work on the pragmatic effect of emotive expression in discourse ( 1984,1990 ), and Clachar's study of emotion in L2 writing (1999). His main point is that the study of emotion in SLA has not been confined to any particular theoretical perspective but can be found across all research areas and settings, including multilingual lexicons, emotional expression, LX learner identity and narratives, teacher cognition, language assessment, expressive writing, and/or sociocognitive approaches.

All researchers, including Prior, recognize an increase in affective research in the last decade, with the only difference being the resistance of Prior to acknowledge the latest research as the embodiment of a paradigm shift, or an affective revolution. The difference in perspective between Prior (2019) and, for example, Dewaele and MacIntyre (2019) is the importance that the latter gives to the conceptualization of positive emotions as a fundamental variable, which has happened only recently. This conceptualization has made possible, among other things, the development of positive emotion-based intervention strategies that not only help learners acquire new linguistic skills but contribute to their overall well-being. This controversy will be further analyzed in subsequent sections of this chapter.

That new focus on positive emotion has been driven by a handful of researchers, including Dewaele and MacIntyre (2014), MacIntyre and Gregersen (2012), and MacIntyre and Mercer (2014), and it is inspired by the work of the positive psychologists reviewed in the previous section as conceptualized by Oxford (2016). The first three identified and explored the role that enjoyment plays as the key positive emotion in the classroom, developed instruments to measure it, and conceptualized it in two dimensions-one private and the other social. Oxford (2016) developed a theoretical application of positive psychology in SLA summarized in the acronym EMPHATICS. Overall, these studies do not deny the impact of negative emotions but claim the need to change the focus from defining problems and overcoming deficiencies to boosting positive emotions and
fostering engagement and appreciation (MacIntyre \& Mercer, 2014). In fact, one of the keys of their empirical research since Dewaele and MacIntyre (2014) is better understanding the mutual relationship between FLCA and FLE. Some of the recent research inspired by this new approach to affect in the SLA classroom includes Dewaele (2017); Dewaele and Dewaele (2017); Dewaele and MacIntyre (2014, 2016, 2019); Dewaele et al. (2017, 2019b); Galmiche (2017); Pavelescu and Petrić (2018); and Piniel and Albert (2018).

This dissertation is directly inspired by Dewaele et al. (2017, 2019b), and Pavelescu and Petrić (2018), and tries to explore the applicability of the positive emotion-based intervention strategies proposed in Mercer (2016), summarized in Dewaele et al. (2019), and set forth as a research priority in MacIntyre et al. (2019). As Dewaele (2019) concluded in his response to Prior (2019), their work intends to take a more holistic look at how learners feel during classes and hopes it will lead to a shift in educational practices away from the dry cognitivist mindset still dominant in foreign language curricula. Echoing Mackenzie and Alba-Juez (2019), "across social sciences, scholars are recognizing the essential role of emotional phenomena." (p. 3). This is particularly relevant for the teaching of Spanish at community colleges across the U.S., given our declared social mission, as exemplified in ChSCC's mission statement ${ }^{1}$, and the sociolinguistic realities in which these institutions and their students operate.

In the last few sections of this literature review, existing research in FLCA will be more closely reviewed, as well as research in the field inspired by PP, with special attention paid to their origins, early proposals, current accomplishments, critiques, and future potential. The review will conclude with a summary of key concepts informing the research design proposed in this dissertation and a list of research questions this design intends to answer.

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### 2.3.3 Foreign Language Classroom Anxiety

It has already been established that FLCA was the first emotion to be singled out by SLA researchers and extensively researched throughout the last four decades. In his overview of this research, MacIntyre (2017) hypothesizes this may be due to the intensity and frequency of the experience at the learner level. MacIntyre (2017) divides those forty years in three phases: the confounded phase (1978-1986), the specialized approach (1986present), and the dynamic approach (2014-present). During the first phase, the study of anxiety and its effect on language learning was undertaken using a variety of sources and limited conceptualization of the phenomenon. The specialized approach (1986-present) conceptualizes and studies anxiety experiences specifically associated with language learning. Finally, the dynamic approach is characterized by the study of anxiety in dynamic contexts, in relation to other language experience-specific variables.

### 2.3.3.1 The confounded phase

The field agrees that Scovel (1978) is the foundational study on the effect of anxiety in language learning. In this paper, the author notes the increasing frequency of studies exploring the relationship between affective variables and language learning, and expresses frustration about their inconclusive results, due mostly to the lack of clear definitions of affect used across the literature. His paper attempts to create set definitions for affective variables based on the existing psychological theories of the time and to classify them as a subset of learner internal variables. However, it chooses anxiety as its focus, indicating the ambiguity of results and how that ambiguity could be partially dispelled by distinguishing between facilitating (or positive) and debilitating (or negative) anxiety. His goal was not just to increase the rigor and validity of the incipient affective research in SLA, but also to facilitate the development of new methodologies.

Scovel (1978) was a step in the right direction and was useful to demonstrate that the epistemological element of affective research in SLA was far from mature. He claims improved knowledge of the intricate learner variables that intervene in language anxiety is necessary before attempting to measure it, and divides these variables into
intrinsic/extrinsic factors, and affective/cognitive variables. He concluded his paper stating:

The good news is that we are able to isolate affective variables in our research into the psychology of language acquisition; [...] The bad news is that the deeper we delve into the phenomenon of language learning, the more complex the identification of particular variables becomes. (Scovel, 1978, p. 142)

MacIntyre (2017) indicates that the essence of the problem highlighted by Scovel (1978) is that not every type of anxiety is relevant or applicable to language learning. He also echoes the critiques against Scovel's distinction between facilitating and debilitating anxiety-an issue for language teachers attempting to apply it to their students, because how do you foster facilitating anxiety? MacIntyre (2017) states how previous work within this phase, such as Gardner (1985), opened the door to the specialized approach. Gardner (1985) and his associates believed anxiety could interfere with SLA motivation, which was understood as a social construct. As a result, they developed a highly contextual instrument to measure anxiety in the French L2 classroom and French use anxiety among Canadian Anglophones and included them in the AMTB. MacIntyre (2017) points out Gardner did not intend to study anxiety per se, and that the instruments to measure anxiety as a factor in language learning motivation were not used consistently. However, Gardner was the first in developing instruments to measure an emotion in the specific context of language learning. MacIntyre and Gardner (1991) summarize the accomplishments of the confounded phase, noting research inspired by Gardner (1985) has shown how anxiety negatively affects performance in an L2 across several measures of proficiency and even in different contextual frameworks.

### 2.3.3.2 The specialized approach

Horwitz et al. (1986) is identified by many as a paradigm shifter when studying the effect of anxiety in language learning and it would come to be one of the most influential papers ever published in the field, with more than 6,588 citations according to Google Scholar,
at the moment of writing this. It is also identified by MacIntyre (2017) as the paper that signaled the beginning of the specialized approach. They drew upon Scovel (1978) and Gardner (1985) to undertake the development of their FLCA concept based on students' descriptions of aspects of their classroom experiences that were distinctly anxiety provoking, including speaking the language in front of their teachers and/or classmates, testing, and fear of being negatively evaluated.

The authors of this influential paper claim:
When anxiety is limited to the language learning situation, it falls into the category of specific anxiety reactions. Psychologists use the term specific anxiety reaction to differentiate people who are generally anxious in a variety of situations from those who are anxious only in specific situations. [...] Second language researchers and theorists have long been aware that anxiety is often associated with language learning. [...] However, second language research has neither adequately defined foreign language anxiety nor described its specific effects on foreign language learning. (Horwitz et al., 1986, p. 125)

Horwitz et al. (1986) try to undertake that deficit by conceptualizing FLCA as a unique phenomenon, separated from other existing educational-setting situational anxiety constructs, and they developed a 33 -item scale to measure it-the popular FLCAS. Horwitz (1986) is the first application of this scale, with excellent reliability among beginner Spanish LX students at the University of Texas at Austin. Horwitz's (1986) empirical study results in modest correlations between FLCA and trait anxiety, communication apprehension, and fear of negative evaluation, as well as a stronger correlation between text anxiety, expected grade, and actual grade. It also suggests FLCA could be reliably measured, and that it plays an important role in language learning.

The FLCAS was inspired by Gardner's (1985) AMTB, and it conceptualizes FLCA as situation-specific, separate from trait anxiety. MacIntyre (2017) indicates how this situation-specific anxiety develops because of the repetition of anxiety-provoking
situations in the classroom that end up having the learners associate the language class with anxiety. This approach was a step forward from the confounded approach and allowed researchers to find and interpret correlations between various measures of anxiety. MacIntyre and Gardner (1989), for example, analyze correlations between nine anxiety scales, including general anxiety, native language speaking anxiety, and audience sensitivity. They find FLCA is indeed a separate dimension and does not correlate reliably to trait anxiety.

The empirical validity these early studies concede to the instrument and the conceptualization of FLCA allowed for an expansion of research in the area, focused on the different sources of classroom anxiety, the ways in which it affected language learning, and the processes by which the effects of anxiety emerge. Some relevant studies during this period are Dewaele (2002), Gregersen and Horwitz (2002), MacIntyre (1999), MacIntyre and Charos (1996), MacIntyre and Gardner (1989, 1991), or Saito et al. (1999). Overall, MacIntyre (2017) indicates how the most relevant research avenues that were explored included the effect of FLCA across the four language skills (speaking, listening, reading, and writing), and its relationships to broader learner factors, like personality, perceived competence, or WTC. Research also inquired into the role of anxiety as directly described by students themselves, through qualitative research, chiefly by Cohen and Norst (1989), Price (1991), and Oxford (1999).

This explosion in anxiety research attracted the attention of critics, such as Sparks and Ganschow (1995). They challenged the assertion that anxiety is a cause of problems with language learning. These authors were proponents of the linguistic coding differences hypothesis (LCDH, Sparks et al., 1993), which adduces that language aptitude is the primary source of differences in achievement. This conclusion implies the measured affective variables were left without explanatory power at the end of their experiment. They admit affective variables play a role in language learning, but believe this role is circumstantial and the instances in which they are relevant is small. They make this assertion by criticizing the concept of FLCA as articulated by Horwitz et al. (1986) and applied by the other authors referenced in this section. MacIntyre (2017) explains how the views of Sparks and Ganschow (1995) were influenced by their backgrounds as learning disabilities researchers, focusing their attention on the problem of causality: is anxiety the cause of poor performance, or the result? This is an issue that has been a point
of discussion in the literature ever since. Defenders of the validity of the FLCA construct (Horwitz, MacIntyre, etc.) admit linguistic coding problems can generate anxiety, but they assert that the key issue is the need to explore the many sources of anxiety beyond aptitude and include/incorporate/study the real effects on language learning that were being indicated by an increasing corpus of empirical research. MacIntyre (2017) also indicates the same flaw Spark and Ganschow (1995) attributed to FLCA studiesinferring causation from correlation-also takes places in the analyses they used to sustain their LCDH construct, and their critiques to the FLCA one.

MacIntyre (2017) closes his review of the controversy by indicating the results obtained in a few FLCA studies that adopted an experimental approach, such as Steinberg and Horwitz (1986) and MacIntyre and Gardner (1994). These experiments established anxiety can be the cause, and not just the consequence, of performance issues, even though they fail to establish it as the prevalent cause. The need for further experimental designs trying to clarify the exact role of FLCA in LX performance was eclipsed by the rise of a new perspective in the study of FLCA, embracing Larsen-Freeman and Cameron's (2008) complexity and dynamic systems theory.

### 2.3.3.3 The dynamic approach

MacIntyre (2017) considers the dynamic approach an emerging tradition that situates anxiety as a mutable emotion in the context of a multitude of interacting factors. Those factors affecting language learning include linguistic abilities, physiological reactions, self-related appraisals, pragmatics, interpersonal relationships, specific topics, and/or type of setting. The conceptualization of anxiety as a fluctuating emotion that changes over time makes it possible to study it according to different timescales, from seconds to years. Timescales depend on the type of research. For example, if an experiment is attempting to measure the rise and fall of anxious states during communication in the target language, the time scale will be in the scale of seconds/minutes, whereas if the target is understanding the trajectory of anxiety across an academic program, it will be months/years.

Gregersen et al. (2014) is a relevant example of an early study within this line of research. It understands language learning as an affective and psychological dynamic process influenced by ever-changing variables and emotional vibes. As such, anxiety in their study is presented as being subject to moment-to-moment fluctuations. The researchers triangulate physiological and idiodynamic self-reported survey data, as well as data from interviews, for six students of Spanish LX from a Midwestern university in the U.S. From this data, three reported high learning anxiety and three reported low anxiety through the FLCAS. All subjects were second semester students of Spanish and were chosen from among 18 volunteers. Five were females, and one was a male, a gender ratio consistent with the larger population of students in that program. One of the key novelties of their study was the use of the idiodynamic method, which has subjects self-rate the moment-to-moment anxiety they experienced resulting from presenting in Spanish in front of their peers. Physiological data was collected at the time of the presentation, and the rest of the data was collected later, while subjects watched a video of their performance with their instructor. Last came the interview, during which they had an opportunity to explain their reactions. According to the results, reported anxiety spiked when subjects forgot specific words or struggled with the presentation flow. High anxiety students were more prone to situations like this because they chose to memorize the presentation, a strategy that is more conducive to this type of error. The collection of qualitative data allowed the researchers to identify at least one instance in which the source of anxiety was the experiment itself. To summarize, the breadth of the data used demonstrates that even low anxiety students experience bouts of high anxiety, and the overall anxiety experience is influenced by multiple factors.

Another relevant dynamic experiment is MacIntyre and Serroul (2015). This study is not limited to FLCA, but explores motivational dynamics using the idiodynamic method, aiming to better understand the inner workings of motivation processes as the subjects interacted with the target language in real time. The authors discuss the concept of timescales, this time applied to motivation, and specifically to the subjects' L2 selves as conceptualized by the L2MSS. They hypothesize that the concept of timescales particularly applies to the OSM dimension, which could be divided into two parts: a longterm sense of obligation to parents and teachers, but also a near-term obligation to perform in the target language in front of teacher and peers. The subjects were 12 English L1

Canadian undergraduate students from Cape Breton University, and it explores their affective, approach, and avoidance motivational variables while performing eight communicative tasks in French during class. The researchers found what they nicknamed the "four horsemen" (p. 112) of L2 communication avoidance: when the language process becomes strained, or it is perceived by the subject as failing, an inhibition system activates, as a result of the appraisal of the threat to fail at the task. Attention then shifts to the interlocutor's reactions, to evaluate if this failure could threaten the subject's face with them. The subject assesses what is expected of them as compared to their previous language learning experiences to decide whether they can use the L2 properly in the current situation or not. If mistakes persist, despite the speaker's coping mechanisms, an anxiety reaction arises. This anxiety reaction exacerbates the speaker's communication problem, creating a feedback loop of increasing anxiety. Learners cope with this surge of negative emotion with new face-saving coping mechanisms, such as distracting strategies, self-deprecation cognition, or even escaping communication altogether. Along with these cognitive effects, the subjects also experience physical signs of anxiety, such as perspiration, palpitations, and shakiness. At the time of its publishing, there was no way to validate this model against similar data, but it is undeniable it offers a unique insight into the multiple dynamic affective factors at play when a student has trouble communicating in a target language. These affective processes are inserted in the larger framework of students' near-term motivation workings and the researchers recognize the potential of these experiences influencing future willingness to communicate.

Another important contribution to the study of anxiety pertaining to the dynamic approach is the appearance of longitudinal studies, such as Piniel and Csizér (2015). They analyze the ways in which motivation, anxiety, and self-efficacy changed and interacted during a university academic writing seminar. They used a sequential mixed methods design to collect quantitative and qualitative data from Hungarian subjects studying English L2. The method they implemented intended to scrutinize micro-social aspects of writing in English L2 to draw macro-social implications such as curriculum and program design for similar courses. The most relevant result they obtained indicates that, despite the fact subjects were majoring in English and they reported high levels of motivation to learn the language, their motivation, anxiety, and self-efficacy shows small fluctuations of different natures over the period of taking a demanding course. Writing anxiety is the less
stable variable among some subjects, who overall show two different trajectories: one with consistently low anxiety and high motivation, and another connecting high anxiety and high motivation in a less stable relationship.

MacIntyre (2017) concludes that one of the key lessons emerging from dynamic studies of FLCA is the importance of context beyond the language-learning situation, including learner-internal variables, such as their psychological context, physiological, and emotional processes. This is emphasized by the valuable results obtained by research that examines the complex interaction of these variables both in cross-sectional and longitudinal settings. Another key lesson is the need to reconsider the idea of causality as the individual experience of learning a language unfolds. The complicated nature of the dynamic approach goes beyond the still image nature of previous, cross-sectional research and offers a more complex, continued, and integrated explanation of learners' language experiences.

### 2.3.3.4 Open questions regarding the study of FLCA

It seems the dynamic approach to the study of FLCA is here to stay. In the introduction of their volume devoted to the state of the field, Gkonou et al. (2017) reflect on the traditional view of anxiety as a monolithic, debilitating force that should be minimized or eliminated to empower the learner. They also warn about the sterile nature of the circular debates around causality, and advocate for reframing anxiety as one more element in the complex interrelated network of affect and cognition that is the mind of the learner, with intimate relations with motivation, risk-taking and similar variables. Some of the questions for future research they pose include:

Can a learner experience both trait and state anxiety? Can the learner experience both at the same time? [...] are the underlying causes of anxiety to be found in the learner, the teacher or the communicative environment or the subtle interplay of all these? (Gkonou et al., 2017, p. 5)

They also consider more research is needed to prove the conception of anxiety as either a facilitating or a debilitating factor in language learning and motivation. They also echo the novelty of Dewaele and MacIntyre's (2014) proposal, which addresses anxiety along with enjoyment.

In the same volume, MacIntyre (2017) poses three questions that, in his opinion, have shaped the debate around FLCA since 1986. These questions are:

1. Is FLCA facilitating or debilitating?
2. Is it cause or effect of language performance?
3. Is it an internal state, or socially constructed?

MacIntyre refers to Horwitz (2017) to conclude FLCA is best conceptualized as a debilitating force. Recognizing the complexity and many sources and effects of the anxiety experience, he adduces the temporary push subjects experience is due to the general emotional arousal that comes along with classroom anxiety. Also, he believes there is no true reliable evidence of facilitating anxiety in existing empirical literature. In those cases in which researchers claim it to be a factor, MacIntyre (2017) believes it can be explained instead by using a measure of anxiety distinct from situational FLCA, or by misrepresenting a separate experiential variable, different from the anxiety scale.

To address the second question, reminiscent of the debate opened by Sparks and Ganschow (1995), recent empirical research using the idiodynamic method seems to indicate anxiety is both cause and consequence of language performance as reported by the subjects of MacIntyre and Serroul (2015). This research also indicates that anxiety arousal declines during performance, which invalidates the assumption that anxiety is simply the consequence of a subject's L1 linguistic skills. MacIntyre believes the dynamic approach has rendered this debate obsolete, as he admits anxiety could be both cause and consequence of perceived performance problems. Beyond dual approaches, factors interact in a complex, continuous context.

The last question, which involves debate about the internal or social nature of FLCA, also seems to have been rendered moot by the dynamic approach. MacIntyre (2017) claims this line of research already studies both private and social dimensions of FLCA, paying attention to physiological processes, cognition, and emotional states, but also to the
contextual demands of performing in front of an audience of teachers and/or peers, both over a variety of timescales. The best way to answer this question, then, is to deduce that anxiety has both an internal and an external social dimension, and that the best way to study this is to use dynamic approaches that take the complex interactions of both dimensions into consideration.

### 2.3.4 Positive psychology in Second Language Acquisition

The perspectives of PP are of great relevance to this dissertation and their conceptualization of human emotions has already been discussed earlier in this chapter. It was also mentioned how PP played a key role in the novel approach to study emotions in SLA proposed by MacIntyre and Gregersen (2012). The attention given to anxiety in prior SLA research came from the traditional perspective of traditional affective research, often inspired by clinical psychology perspectives. These research perspectives view emotions as problems and conceptualize negative emotions first, understanding them as obstacles that learners need to overcome. As the study of situational anxiety evolved towards more scientific, dynamic approaches, these negative emotions were put into context with social aspects of language learning, as well as other learner internal factors such as motivation and self-efficacy. Gkonou et al. (2017) recall how, in 2014, MacIntyre and Dewaele's "The two faces of Janus? Anxiety and enjoyment in the foreign language classroom" approached the study of situational FLCA from within a wider emotional context and paired it with a situational positive emotion-foreign language enjoyment (FLE).

In their experimental design, Dewaele and MacIntyre (2014) confront FLCA, a negative or detrimental affective variable, with FLE, a positive one. Both are understood as learner-internal, situated emotions. Anxiety is conceptualized as "the worry and negative emotional reaction aroused when learning or using a second language" (Horwitz, 1986, p. 27). As per FLE, they constructed it as the combination of creativity, pride, interest, and fun experienced by the student in the classroom, as well as the positive relationship with teachers and peers. Their concept of enjoyment was influenced by Fredrickson's broaden-and-build theory. Dewaele and MacIntyre (2014) argue a focus on anxiety is an
incomplete picture of the emotional experience in the classroom and narrows the potential intervention down to ameliorating its disruptive effects. They explain how emotion studies up until that point had been mostly embedded in broader studies of motivation, such as Gardner's affective/attitude variables in his integrative construct. Their conception of positive and negative emotions in the classroom is embodied by a metaphor in which both are imagined as the two faces of the Roman god Janus. These two faces represent two dimensions of the classroom experience that can happen simultaneously and-despite sharing their belonging to the emotional realm-have independent effects and are not fully correlated with each other.


Figure 5: Artistic representation of the two faces of Janus
At the time of their experimental design, there was a broad amount of empirical research supporting their proposed conceptualization of FLCA, but none supporting the prospective benefits of FLE in SLA. The authors resorted to PP to formulate such a hypothesis, specifically to Fredrickson (2001, 2003, 2006), Lake (2013), Peterson (2006), and Seligman and Csikszentmihalyi (2000), all of which will be analyzed with more detail in the next section. Based on these authors' works, positive emotions can help dissipate not only anxiety, but also the lingering effects of negative emotional arousal, helping to promote personal resiliency in the face of difficulties. They also facilitate exploration and
play, which bring opportunities for new learning experiences, particularly for language learning. Dewaele and MacIntyre indicate they believe FLPE affects the broaden side of Fredrickson's theory, whereas FLSE is closely connected with the build side of the theory. Meanwhile, positive shared emotions help a person build resources that collectively might be considered social capital (Adler \& Kwon, 2002). Given the dependence that learners have on speakers of the language and their classroom peers, the presence of other people offers resources that facilitate learning. Dewaele and MacIntyre chose to focus specifically on FLE as their positive emotion of choice because it is a defining component of Csikszentmihalyi's concept of flow (1990), a positive state where challenges and the skills to meet them are well aligned. For that author, experiencing enjoyment involves the opportunity to complete a task, concentration, clear goals, and immediate feedback components which seem a good fit for the language classroom. Informally, students also comment frequently on how much (or how little) they enjoy a particular language learning activity, class session, and/or course. FLE is understood as a state that facilitates flow in a language classroom, making the two key elements of that FLE developing interpersonal relationships with peers and teacher (FLSE) and the awareness of making progress towards fulfilling a goal (FLPE).

Dewaele and MacIntyre (2014) thus believe that just as FLCA has a detrimental effect on students' performance and motivation, FLE has the opposite effect by helping learners achieve better results in a target language. In order to measure it, they created a new instrument using Ryan et al.'s (1990) interest/enjoyment subscale as the core, rephrasing it to better adapt it to the LX classroom environment. They added items dealing with LX mistakes in public, identity, improvement in using the target language, pride in performance, group membership, social environment and cohesiveness, attitudes towards learning the language, presence of laughter, and judgments about peers and teachers. Some are "I" items, some are "we" items, and a few are third person ones. The result was a novel foreign language enjoyment scale (FLES) inspired by the FLCAS and constructed with 21 Likert scale items in which subjects rate items of enjoyment in the classroom. Using this tool, they surveyed 1,746 current LX learners from around the world in this seminal experiment and found reported FLE levels to be significantly higher than FLCA ones. They also found them to be linked to several learner external variables, such as participants' perceptions of their relative levels of proficiency, number of languages
known, education level, number of FLs being studied, age group, and general level in the target LX (from lower-intermediate to advanced). Female participants reported higher levels of both FLE and FLCA, and cultural background also had a significant effect on subjects' scores. Through participants' views of episodes of enjoyment in the LX class, the study also reveals the importance of teachers' professional and emotional skills, and supportive peer groups. Although these two emotional dimensions seem to be related, they are independent. However, they are not the opposite ends of the same scale; absence of anxiety does not imply presence of enjoyment, and vice versa. The study finds a significant negative correlation between FLE and FLCA, but the amount of shared variance is relatively small, so they conclude they cannot be compared to the two faces of Janus. It seems anxiety dissolves over time as students' progress and enjoyment take over. What matters is the ratio of positive to negative emotions, and not so much the presence or absence of either type. The results show success is correlated with high FLE, plus a presence of FLCA, but with a more favorable ratio towards the former. They consider this ratio warrants closer scrutiny.

This experimental design, a key influence for the research conducted in this dissertation, is one of the first attempts to adopt these new perspectives of PP to allow for a more complete approach to the study of emotion in the SLA classroom. The application of the tenets of this new branch of psychology to the field is one of the most exciting developments in the last decade of SLA research. The last subsection of the literature review will summarize the theoretical underpinnings of PP, their application to the area of SLA affective research, and the lessons learned from empirical studies derived from these novel frameworks.

### 2.3.4.1 What is Positive Psychology?

MacIntyre et al. (2019) introduce the latest review of PP in SLA by highlighting the long relationship between psychology and SLA research. They bring up psychology's traditional reputation for emphasizing the study of problems, such as anxiety, depression, mental and personality disorders, trauma, etc. However, since the early years of this millennium, the formulation of PP has promoted the growth of new topics in psychology
research, such as empathy, happiness, hope, optimism, or well-being. In fact, PP can be defined as "the scientific study of what goes right in life" (Peterson, 2006, p. 21).

The first authors to make the claims regarding psychology's reputation mentioned in the paragraph above were Seligman and Csikszentmihalyi (2000). In "Positive Psychology, An Introduction", PP's foundational paper, these authors state that a science of positive subjective experience, positive individual traits, and positive institutions holds the promise of improving quality of life and preventing the pathologies that arise when life is barren and meaningless. They claim the exclusive focus on pathology that had dominated so much of their discipline resulted in a model of the human being as lacking the positive features that make life worth living. Hope, wisdom, creativity, future mindedness, courage, spirituality, responsibility, and perseverance are ignored or explained as transformations of more authentic negative impulses. Instead, they uphold the value of discussing topics such as what enables happiness, the effects of autonomy and self-regulation, how optimism and hope affect health, what constitutes wisdom, and how talent and creativity come to fruition. These proposals run parallel to the growing popularity of preventive medicine through the last decade and are presented along the lines of a framework for a science of PP. They also predict that the next century will see psychology as a science and profession that will come to understand and build the factors that will allow individuals, communities, and societies to flourish.

The authors call for the need to begin undertaking massive research on human strengths and virtues, while warning practitioners that they need to recognize that much of the best work they already do in the consulting room is amplifying strengths, rather than repairing the weaknesses. They claim dominant theories no longer view the individual as a passive vessel responding to stimuli-a statement that can be applied to the flaws of traditional cognitive-based research in SLA quite faithfully. Opposing that, positive psychologists see individuals as decision makers with their own preferences, and as having the possibility of becoming masterful, efficacious, or, in malignant circumstances, helpless and hopeless.

Seligman and Csikszentmihalyi (2000) conclude by stating negative emotions and experiences seem more urgent, and therefore may override positive ones-something that can also be applied both to student and teacher experiences in the SLA classroom.

Although often there is an assumption that solving the negative will bring positivity, positive emotions are fundamental to survival. Cultures, just like individuals, turn their attention to positive values when they are stable, but focus on negative issues when in crisis. The authors end their article by reiterating their call to engage in research conducive to measuring, understanding, and building characteristics that make life most worth living, allowing individuals and communities not just to survive, but also to flourish.

Another influential author in the PP field is Fredrickson (2001, 2003, 2006). In 2001, drawing inspiration from Seligman and Csikszentmihalyi (2000), she introduced the broaden-and-build theory, which attempts to describe the form and function of a subset of positive emotions, such as joy, interest, contentment, and love. Fredrickson proposes these emotions broaden the individual's momentary skill set, and thereby inspire thoughtaction responses such as an urge to play, explore, savor, integrate, and relate. She labels these thought-action repertoires "broadened mindsets" (Fredrickson, 2001, p. 220) and opposes them to narrowed mindsets that result from many negative emotions, such as the traditional fight-or-flight response so thoroughly studied in biology and cognitive psychology. The theory does not stop there and elaborates on the long-term consequences of broadened mindsets, including the promotion of new creative actions, ideas, and fulfilling personal bonds, which build up an individual's repertoire of physical, social, psychological, and intellectual resources. These resources are then available to be drawn upon when needed, improving the odds of successful coping and survival in the face of difficulties.

This formulation makes clear that PP does not ignore negative emotions, the problems associated with them, nor efforts to solve them. It just denies that the absence of negativity implies happiness and success and recognizes the need of positive emotions not just because they are pleasant and desirable, but also because they are tools that enable us to face our problems more effectively. The broaden-and-build theory is a holistic approach to understanding psychological well-being, and a source of inspiration for designing the positive interventions MacIntyre et al. (2019) claim are essential to fulfill the ethical mission of SLA research. In this first paper devoted to the broaden-and-build theory, Fredrickson also offers a summary of findings regarding the effect of positive emotions, supporting her claims that positive emotions not only broaden thought-action repertoires,
but also have potential to undo lingering negative emotions, fuel psychological resilience, build personal resources, and enhance psychological and physical well-being. The findings of her research underscore the fact that positive emotions are essential elements of optimal functioning, which makes any theory within the science of well-being incomplete without proper attention given to them. It is also a theory that carries a prescriptive message: cultivating positive emotions is fundamental to improving not just an individual's life, but also the lives of those around them, and the benefits of this cultivation are not just momentary, but carry on in time, transforming people for the better and setting them on paths towards flourishing. A lack of positive emotion, on the other hand, contributes to people being stuck in narrowing courses of actions that take away individuals' freedom, and interferes with well-being, as well as with learning and personal development. Fredrickson (2001) concludes with an excellent definition of the theory it presents: "The broaden-and-build theory conveys how positive emotions move people forward and lift them to the higher ground of optimal well-being." (p. 1375).

Another important study is Fredrickson (2003), also centrally devoted to touting the benefits of PP, further supporting the broaden-and-build theory with new empirical research. One of the main new claims the author makes in this paper is that positive thinking and pleasant feelings help people live longer. Positive emotions are also presented as universals, relevant in similar ways to all individuals across cultures. Finally, the empirical portion focuses on researching specific pathways in which positive emotions result in the beneficial effects described in Fredrickson (2001). Both Fredrickson and her students conducted these experiments, and the first of them consisted of having subjects watch emotionally evocative videos. The emotions reported by subjects after watching them included joy, serenity, fear, and sadness. Videos intending to illicit a neutral emotional response were also showed as control films. After watching, the subjects had to complete global and local visual processing tasks. Those reporting positive emotions tended to choose global configurations, whereas those reporting negative ones chose local ones. The author believes the results uphold her claim that positive emotions broaden perspectives, whereas negative ones narrow them. The results of a second experiment confirm the claim in Fredrickson (2001) that positive emotions build up emotional reserves that can be drawn upon later, thereby empowering individuals and protecting them from the harmful effects of negative emotions. Finally, a third experiment was
conducted to test whether positive emotions assist people in coping with simultaneous negative emotions. In this experiment, those exposed to positive-emotional stimuli had high heart rates and blood pressure reduce themselves faster after situations of anxiety than those exposed to neutral or negative emotional stimuli. These empirical designs and their results were key in inspiring MacIntyre and Gregersen (2012) to make a call to implement the findings of PP to research affective variables in the SLA classroom.

From 2003 on, PP experienced a remarkable rate of growth, such that by 2006 a new journal was being published-the Journal of Positive Psychology. Contributions such as Fredrickson (2006) further developed concepts put forth in 2001 and 2003 and moved beyond the broaden-and-build theory to focus on human flourishing and how positive emotions can make it possible. Two of the latest contributions that have been influential in the SLA field are Seligman (2011), and Waterman (2013).

Seligman (2011) introduces a new conceptual framework to categorize positive emotions: PERMA. Eleven years after he and Csikszentmihalyi called for a focus on PP, Seligman hypothesized that positive emotions are integrated with other variables to compose the blocks of individual well-being. These variables are presented through their acronym, PERMA, which stands for Positive emotions, Engagement, Relationships, Meaning, and Accomplishment. Seligman, however, recognizes that after eleven years of PP research, the investigation of the elements of subjective well-being, as well as the possible interventions to promote it, are still in infancy. In order to advance our collective knowledge of this important research area, he recommends:

- Studies inter-correlating self-reported measures
- Longitudinal and synchronous measurements of objective indices.
- Testing causal and third variable connections.

Seligman (2011) concludes by stating that PERMA is more than a final theory of wellbeing, but rather, a starting point in a complex work-in-progress aimed at achieving an adequate theory of the elements that compose it. It is a framework so applicable to SLA research that it has served as a key inspiration to theoretical frameworks such as Oxford's EMPATHICS.

Finally, Waterman (2013) warns against letting the excessive enthusiasm for PP overshadow the advances and contributions of other branches of psychologyparticularly humanistic psychology. Even though his warning is articulated in the context of related subfields of psychology, parallelisms can be drawn in the area of SLA, particularly between the socio-educational or humanistic approaches and the cognitive or PP-inspired ones. Referring to the relationship between the branches of psychology mentioned above, Waterman states their relationships have been marked by continued tension and ambivalence. The author believes this tension is due to the perspectives having very different philosophical grounding within the field of psychology. For him, these fundamental philosophical differences are related to:

- Ontology, including the ways in which human nature is conceptualized regarding human potentials and well-being.
- Epistemology, specifically, the choice of research strategies for the empirical study of these concepts.
- Practical philosophy, particularly the goals and strategies adopted when conducting therapy or undertaking counseling interventions.

Because of this philosophical divide, adherents of the two perspectives often separately pursue their shared desire to understand and promote human potentials and well-being.

Waterman (2013) encourages researchers to explore the conceptual opportunities opened up by PP, but without forgetting the already proven contributions of humanistic psychology, which, being a few decades older than PP , is responsible for the enunciation of some of the principles positive psychologists claim as their own. Reading Waterman (2013) contributed to inspire me to include a social perspective in this study of how attitudes influence enrollment.

### 2.3.4.2 Positive Psychology in SLA: 2012-2015

MacIntyre et al. (2019) indicate how the topics of research in PP described in the previous section are not entirely new to SLA. Works like Naiman (1978), Rubin (1975), or Stern (1975) already admit the role of affect and positive emotion in learning a new language
successfully. MacIntyre et al. (2019) also give credit to proponents of the humanistic approach to language teaching, such as Lozanov (1979), Moskowitz (1979), and more recently Arnold (1998), which are referenced in the introduction of their literature review. Finally, the study of motivation to learn SLA is also concerned with the role positive emotions plays in motivation to learn a language, with both the Gardner's SEM (1985, 2010), and Dörnyei's L2MSS (2005) acknowledging it-the former from an external social perspective, and the latter with an internal perspective associated with the concepts of the L2 self.

Dewaele et al. (2019) claim early studies focused on affect and applied linguistics had a bias towards negative emotions (FLCA). The importance of positive emotions in the LX class had been theoretically emphasized by Arnold (1999), Arnold and Fonseca (2007), and Arnold and Fonseca-Mora (2011), but they did not clearly define these emotions, nor did they create instruments to measure them. They also identify a few key early studies that identified the general role of emotions in LX learning, including Bown and White (2010), Dewaele (2005, 2015), MacIntyre et al. (2009), or Puozzo-Capron and Piccardo (2013). But they also highlight research in the field was rare due to the dominance of the cognitive perspective, and the fact that, until 2012, PP had not been linked directly to SLA yet.

With these early contributions as background, the first paper that actively proposed to implement the agenda of PP in the SLA field is, according to many, MacIntyre and Gregersen (2012). This paper was heavily influenced by the broaden-and-build theory, and it is titled "Emotions that facilitate language learning: The positive-broadening power of the imagination". It advances the thesis that emotions can be activated by imagining future states, a key feature of Dörnyei's (2005) L2MSS. The authors also believe negative and positive emotions have different functions, and can happen simultaneously or independently, contradicting some traditional perceptions that see them as part of a continuum. They rely on Fredrickson $(2001,2003)$ to argue positive emotion facilitates resource building and a broadening of perspectives, opening the individual to absorb the language, while negative emotions, on the other hand, narrow perspectives and shut students down from learning. They recognize the difficulty in defining emotion, with common usage seemingly arriving at circular definitions where emotions are defined as feelings, and feelings as emotional states, and so they resort to Reeve's (2005) definition:
"Emotions are short-lived, feeling-arousal-purposive-expressive phenomena that help us adapt to the opportunities and challenges we face during important life events" (p. 40). They recognize that up to that point, SLA research has focused predominantly on negative emotions, such as language anxiety, which is associated with feelings of tension, nervousness, worry and dread, upset, and similar other feelings that precede avoidance or escape. They state the need to incorporate the study of positive emotions into future studies - either on their own, or along with language anxiety and, in addition, they identify two positive emotions as the most relevant regarding language learning: joy and interest.

They draw five functions of these positive emotions directly from the broaden-and-build theory, indicating how they can assist learners:

1. Broadening their attention and thinking, leading to exploration and play.
2. Helping undo the lingering effects of negative emotion arousal.
3. Promoting resilience by triggering productive reactions to stressful events both physiologically and emotionally.
4. Promoting a build-up of personal resources, such as social bonds and intellectual resources honed during creative play.
5. Becoming part of an upward spiral toward greater wellbeing in the future, an "upward" spiral.

Since emotions are semi-controllable, the authors argue teachers can influence students' emotions by appealing to their imaginations and helping them bridge the gap between the current and the future selves, giving them the tools to intervene in negative emotional schemas associated with language learning. The aim is to harness the power of positive emotions-joy, interest, contentment, pride, and love-to create a balance with the negative ones. This should raise engagement, which in turn raises awareness and makes language input more effective. They also help students develop resiliency and hardiness to overcome future negative events. In summary, they believe applying the findings of the broaden-and-build theory to increase motivation results in one of the most powerful tools teachers have to increase success among their students: promoting positive emotions in the classroom. In fact, they highlight the potentials of teacher intervention, using the imagined L2 self-system to provoke a positive/broadening reaction. They pose this can be
achieved by assisting learners in elaborating possible selves, integrated goals, and plans for achieving them.

MacIntyre and Gregersen (2012) also identify an individual and community dimension of positive emotion, which are mutually influenced by the synergy of an individual's resiliency and its positive transformational effect upon the classroom community. If a teacher can inspire these positive-broadening emotions, the ensuing actions seem likely to boost language learning. In order to harness the positive effect individual resiliency may have in a group of learners, teachers can develop interpersonal closeness, team building, and socially construct positive group emotion by modeling their own discourse and attitudes and by encouraging learners to use this same model. Ultimately, teachers can contribute to alleviating the arousal of negative emotions by avoiding negativity, disapproval, sarcasm, and cynicism. In summary, the authors propose that by invoking the imagination and using the power of positive emotion, teachers can provoke learners to respond to the dissonance found within their possible selves and to effectively summon the cognition that modifies the emotional schema, debilitating negative-narrowing reactions, using systemic desensitization and other building and broadening techniques.

The maturity of this proposal was already visible in the next theoretical landmark in the field, MacIntyre and Mercer (2014). This work introduced a special issue on PP and SLA published by the journal Studies in Second Language Learning and Teaching. Their paper conceptualizes a two-dimensional view of emotion in the classroom, which accommodates a seesaw view of emotion and allows for examining the ambivalence of co-occurring negative and positive emotions, which eventually have become so central to SWPP. This view of emotion identifies four possible emotional states: lack of emotional arousal (low positive and negative arousal), unpleasant emotional tenor (highly negative, low positive), pleasant emotional tenor (low negative, highly positive), and ambivalent feelings (highly positive and negative arousal). They also revisit the concept of the good language-learner (GLL) and the goals of language learning. MacIntyre and Mercer (2014) assert the traditional view of the GLL focused on the subjects' states and outcomes should be replaced with a process-oriented view of learners and their experiences that also takes into consideration their well-being as the processes unfold.

They also identify four encouraging trends in the future of PP research in SLA. The first trend is connected to the social turn in SLA, which makes room for serious consideration of the diverse, nuanced contexts in which language learning occurs. This trend is founded on the understanding of PP as being sustained by three pillars: positive emotions, positive character traits, and positive institutions. They claim research on the role of positive institutions is lacking and call for more research in this area in the future. A second trend is the idea of complex dynamic systems, which was beginning to take off at the time in the study of classroom anxiety, but the authors believe it is applicable to any kind of classroom emotion, whether positive or negative. The third trend has to do with the methodological wealth of this research area, which has been receptive to a variety of quantitative, qualitative, and mixed methods research from early on. The fourth and last trend is focused on documenting the complexity of individual cases, which can describe the processes that lead to well-being with more detail than large quantitative studies can. MacIntyre and Mercer (2014) conclude by stating:
"...positive psychology is not frivolous pop psychology; it is a rapidly expanding field of knowledge with rigorous methods and a promising future. There is an abundance of specific concepts and general themes to be explored. [...] In the SLA field, we envision future theory development and pedagogical applications that will establish the relevance of PP for language learning." (MacIntyre \& Mercer, 2014; p. 167).

The theoretical developments in MacIntyre and Mercer (2014) are sustained by the first empirical designs devoted to confirming the theoretical implications in MacIntyre and Gregersen (2012). These include Dewaele and MacIntyre (2014) and Gregersen et al. (2014), but also Oxford and Cuéllar (2014). Oxford and Cuéllar (2014) appeared in the same issue as the article discussed above, and it applies the principles of PP and narrative research to explore the psychology of five Mexican learners of Chinese LX. They use ground theory to analyze the collected data based on Seligman's (2011) PERMA model. Their results illustrate that positive emotions, engagement, relationships, accomplishment, and meaning are all elements in the journey of self-discovery that is potentially at the root of the language learning experience.

The findings of these early empirical studies, along with Lomas and Ivtzan's (2015) SWPP (also known as PP 2.0), contributed to further expanding the theoretical foundations of PP studies in SLA, inspiring Oxford's (2016) reformulation of the paradigm. Dewaele and MacIntyre (2019) recognize the role of Oxford (2016) in sparking a second, more mature phase in the field that was, according to Dewaele et al (2019), inspired by the second PLL conference at the University of Jyväskylä in 2016.

### 2.3.4.3 Positive Psychology in SLA: 2016-now

Dewaele et al. (2019) indicate 2016 was the year PP research in SLA began to flower. Some of the landmarks they highlight include:

- The commitment to establishing the International Association for the Psychology of Language Learning (culminated at the PLL3 conference at Waseda University in Tokyo in 2018)
- The establishment of a new book series devoted to the psychology of language learning and teaching by Multilingual Matters.
- The publishing of two influential books: "Positive psychology in SLA" (Gregersen et al., 2016) and "Positive psychology perspective on foreign language learning and teaching" (Gabryś-Barker \& Gałajda, 2016).

Starting in 2017, the number of studies has become so abundant that White (2018) considered an emotional turn in SLA and teaching ESL had taken place - an assertion that experienced some pushback from authors such as Prior (2019). Dewaele et al. (2019a) consigns all contributions during this last period of PP in SLA to three main areas: theoretical contributions, empirical learner-focused studies, and intervention studies.

Among the theoretical contributions, both MacIntyre et al. (2019) and Dewaele et al. (2019a) indicate the pivotal importance of Oxford (2016). Oxford took Seligman's PERMA (2011) and adapted it to the field of SLA, designating a new acronym for her framework: EMPATHICS. It stands for:

- Emotion and empathy.
- Meaning and motivation.
- Perseverance, which includes resilience, hope, and optimism.
- Agency and autonomy.
- Time.
- Hardiness and habits of mind.
- Intelligences, with emotional intelligence a key factor within them; character strengths.
- A variety of self-skills, including self-efficacy, self-concept, self-esteem, and selfverification.

The most relevant aspect of this framework is that it includes all of the previous relevant affective variables that had been the object of study of the humanistic approach to SLA. It integrates them into a framework supported by existing research and contributes to the advancement of both fields of study. Oxford (2016) operationalizes her framework by contributing testable hypotheses for each one of the dimensions that compose it. In her concluding remarks, the author indicates how the relationships between these dimensions are not linear, but rather organic and holistic, and theorizes higher-level aggregations of them are possible. She also claims research on topics under the EMPHATICS umbrella is urgent, and should have as final goal the development of teacher development sessions to enable them to offer ongoing language learner development inspired by PP.

Another important theoretical contribution to the early stages of this period is Mercer (2016). Mercer asserts that in order for language learners to take full advantage of the opportunities provided by the interconnected nature of the world, meaningful high-quality interpersonal relationships are necessary, and these cannot be achieved without our ability to empathize. She proceeds to analyze the multiple ways in which empathy can affect education in SLA. Mercer defers to Howe (2013) for a definition of empathy: "The idea of getting 'into' a feeling [...] particularly when we see and feel the world from the other's point of view, attempt to understand it, and seek to convey that understanding as we relate with those around us" (p. 6). She then refers to the key function of empathy in PP, exemplified by its role within Seligman's (2011) PERMA framework, as well as succinctly reviews existing research regarding empathy in educational in general, and language learning in particular. Mercer (2016) believes it is particularly important in language learning because of its focus on intercultural communication, diversity, and the
implied centrality of social interaction both in the process of learning, and as part of learners' goals. This contrasts with a relative absence of the topic in SLA research-an issue that requires being remedied, as it would not only help us better understand the process of learning a language, but it would also help engineer better group dynamics inside the classroom. This, in turn, could contribute to improving student outcomes when learning another language, by increasing student overall well-being, and reinforcing a fundamental social capacity. Other authors, such as Falout (2016) and Kusiak-Pisowacka (2016) investigated learners' past, imagined future selves to reflect on the FL experience and nurture positive emotions, and focused on how to apply PP principles in FL testing.

This theoretical revolution made possible the advent of an important number of empirical studies centered on two approaches: the study of positive emotions, and a focus on positive personality traits. Most studies have intended to understand variation at an individual or group level in order to optimize students' and teachers' strengths and wellbeing, which improves foreign language teaching and learning, and assessment as a result. Quantitative approaches dominate the field, but a wide range of epistemologies and methodology approaches are also present: there are examples of mixed methods, qualitative research, studies focused on the teacher's perspective, and on the teacher's effect on emotions in the classroom.

Some of the most relevant quantitative or mixed methods studies in this area are De Smet et al. (2018); Dewaele and Alfawzan (2018); Dewaele and Dewaele (2017); Dewaele and MacIntyre (2016, 2019); Dewaele et al. (2017, 2019a, 2019b); and Saito et al. (2018). Dewaele and MacIntyre (2016) is the first empirical study confirming the existence of two distinct dimensions of FLE: FLSE and FLPE. It also reaffirms the results obtained by the same authors in 2014 (and others after them) defining FLE as a separate, mostly independent dimension from FLCA. Although their findings show a modest negative correlation exists between them, they also show they are far from overlapping completely, as the absence of FLCA does not automatically mean FLE is present. They characterize the two sub-dimensions within FLE as a social one, which is embodied by the satisfaction that a learner can draw from a buzzing, positive SLA classroom, and a private one, which is channeled by the learners' thoughts and feelings, including the internal pride and satisfaction they can experience when something difficult has been achieved. The positive atmosphere created by teachers, but also by peers or by a combination of them was
fundamental to the development of FLE. Their results indicate beginners experience less FLE than advanced learners, which they explain by the fact that, as self-confidence grows, FLCA can be controlled or filtered down and FLE is boosted. Both emotional dimensions seem to operate like the feet of a toddler, initially hesitant until learners can find balance between both, thereby bringing equilibrium to their SLA classroom experience.

Dewaele and Dewaele (2017) is a pseudo-longitudinal study on 189 foreign language pupils in two London schools. They compare the FLE and FLCA results in subjects in the following age groups: 12-13, 14-15, and 16-18. The results show little variation in FLCA over time, and a slight increase in FLE. Multiple regression analyses reveal that fewer independent variables (just learner-internal and teacher-centered variables) predict FLE and FLCA at the start and at the end of a course compared to the central weeks of it. The authors state these results suggest the causes of positive and negative emotions are dynamic and change over time. Dewaele and MacIntyre (2016), which separate FLE into two dimensions, social and private, with each accounting for different degrees of variance in results, inspired their conceptualization of FLE. The analyzed dataset shows higher levels of FLE are linked to more positive attitudes towards the following: the target language, the teacher, frequency of teacher FL use in class, proportion of time spent by pupils speaking, higher relative standing among peers in the FL class, and being more advanced in the LX. Lower levels of FLCA are also linked to positive attitudes towards the LX, higher relative standing among peers, and being more advanced in the LX. FLCA is much less related to the teacher and teacher practices than FLE, which leads the authors to conclude that an effective teacher can fuel learners' enthusiasm and enjoyment, without having to worry about individuals' FLCA.

Dewaele et al. (2017) is a study exploring the degree to which FLE and FLCA are linked to learner internal or external variables. Learner internal variables include gender, age, target language proficiency, and attitudes towards the target language, while learner external variables are instructional methods, and teacher characteristics and behavior in the classroom. The study is a quantitative study run using the data set from Dewaele and Dewaele (2017). Its purpose is to clarify the role instructors play in the classroom emotions language students experience, and to use potential findings to help discern whether teachers can implement effective practices in the classroom geared towards promoting positive emotions and minimizing negative ones. They found a significant
negative relationship between FLE and FLCA, with both dimensions sharing less than four percent of the variance, which confirms the results of previous studies and upholds the interpretation that these two classroom emotions are separate dimensions that operate independently from each other. They also found learner-internal variables have more links and a stronger relationship to FLE and FLCA than teacher-centered variables do. For example, older students and female students report higher levels of FLE than younger or male students. The authors partially explain the divergences due to age are because of the structure of British curriculum, in which more subjects are required in the early high school years and there is room for more electives in the final ones. As per the gender differences, the authors believe they indicate that female learners are more emotionally involved in the learning process. Higher levels of proficiency predicted more FLE and less FLCA as well as having a positive attitude towards the target language. The latter effect is explained as a possible result of stronger motivation to master the target language, which results in an increased desire to invest time and effort into achieving their goals. They also found a positive relationship between FLE and having a positive attitude towards the teacher, which is predictable in light of the extensive existing research linking teacher perception, heightened motivation, and better academic results. No clear relationship between attitudes towards the instructor and FLCA is found, which elicits multiple relevant conclusions: one, that FLCA relies more heavily on internal variables and peer relationships; and two, that the performance of a well-liked teacher in the classroom is also likely to elicit FLCA. Finally, they discovered more target language use in the classroom, both on the part of subjects and instructors is linked to higher FLE, but not necessarily to increased FLCA. The authors conclude that effective teachers contribute to heightened levels of FLE, without having a relevant impact on FLCA, for which reason they recommend worrying less about the latter. In order for teachers to become effective, they recommend they foster friendly, low-anxiety environments in the classroom, and increasing engagement by creating interest in the target language and using it frequently.

De Smet et al. (2018) is an empirical study devoted to investigating the effect of FLE and FLCA when learning a second language. They compare two target languages (English and Dutch) in two educational contexts (CLIL and non-CLIL) at different instruction levels (primary and secondary education), with the 896 subjects all being Belgian French-
speaking students. The setting of choice allowed the researchers to reintroduce an old variable into the new PP in SLA research trend: the impact of an aspect of integrative motivation in classroom emotions, in this case, the attitudes towards the Dutch-speaking community by Belgian French-speaking subjects. This approach makes this study quite relevant for this dissertation, as the perceptions of French or Dutch on the part of Belgian speakers of the other language can be as politically loaded as the perception of Spanish on the part of English speakers in the American Southeast. According to De Smet et al. (2018), it appears that attitudes towards the other main languages in Belgium (Dutch or French) are not so positive, especially in comparison to attitudes towards English (Housen et al., 2003). Moreover, these rather negative attitudes towards the L2 and the L2 community seem to be related to poor achievement in the L2. Mettewie (2015) suggests that the ambient context of conflict between the Dutch- and French-speaking communities, fueled by the media, might lie at the basis of these negative attitudes and, as such, hinder the acquisition process of the L2. Therefore, while language skills are much needed and thereby considered an asset, L2 competence is generally very limited, partly due to negative attitudes towards the L2 and the L2 community within the tense socio-political situation of Belgium. The results of De Smet et al. (2018) indicate that, while CLIL pupils experience less FCLA than their counterparts, English learners also report significantly less anxiety than Dutch learners do, which suggests an important role of the target language for emotional engagement in the classroom and calls for further investigation into the role of target language perceptions.

Dewaele and Alfawzan (2018) is a mixed methods study focused on the differential effect of FLE and FLCA on LX performance. The study uses the data collected for Dewaele et al. (2017), plus new data from 152 Saudi adult English LX learners. Correlation analyses show the positive effect of FLE on performance is stronger than the negative effect of FLCA, so the former seems to matter more in FL performance. Qualitative data was gathered from the Saudi subjects to explore how FLCA and FLE shaped their decision to pursue or abandon the study of the FL. The researchers recognize personality traits of individual learners are associated with increased FLCA, including neuroticism, extraversion, psychoticism, perfectionism, trait emotional intelligence, and second language tolerance of ambiguity. The study's results reveal a positive correlation between FLE and test results, and a negative one between FLCA and test results. The effect is
greater for FLE (12\%) than for FLCA (9\%). That same analysis found that FLE shows a small effect correlation with English proficiency, while FLCA is negatively correlated, but not significant.

Qualitative data helped link participants' FLE and FLCA in Saudi Arabia to the perception of teachers and teachers' pedagogical practices. In addition, higher selfassessed LX ability is linked to FLPE. FLE seems to increase over time, as "fighter" participants (Şimşek and Dörnyei, 2017, p. 54) learned to control their anxiety. Other participants, labeled "quitters" (Şimşek and Dörnyei, 2017, p. 54), reported their FLCA stemmed from having a low proficiency level and having toyed with the idea of giving up English entirely, rather than combating the anxiety. In summary, only those who actively rejected the crippling effects of anxiety and were resilient enough to overcome it managed to progress to higher levels of proficiency, and sustained FLE. The results also suggest there is a process of attrition, with the "fighters" overcoming obstacles and the quitters and "safe players" (Şimşek and Dörnyei, 2017, p. 54) dropping off along the way.

Various weaknesses of the study need to be considered. Fundamentally, opting for a correlational design implies causality could not be established. This means that, although it is very likely that classroom emotions affected performance, and the reverse is plausible as well due to the bidirectional nature of causality. The link they found between pedagogical practices and emotions means it is fundamental for teacher training courses to focus on the emotional dimensions conceptualized in the study in order to help prepare teachers to create positive climates in their classrooms.

Another important study for the field is Saito et al. (2018), an empirical cross-sectional and longitudinal study of 108 high school students of English L2 in Japan. It is focused on explaining how motivation, emotion and experience profiles enhanced the comprehensibility of their second language speech. Students' FLCA along with weaker ISM correlated negatively to their performance at the beginning of the project. Students' FLE along with greater ISM predicted the extent to which they practiced and developed their L2 speech within the three-month framework of the project. The study concludes that more frequent L2 use and FLE directly influence acquisition, which may in turn lead to the lessening of FLCA and better long-term L2 comprehensibility. The authors explore the connection between the learners' motivation according to the L2MSS framework and
their L2 performance and warn no clear link between motivation and achievement have been found (p. e. Papi \& Teimouri, 2014). However, they feel studies exploring these links need to be replicated with greater methodological rigor, particularly measuring learners' performance better. ISM is strongly correlated with FLPE, and inversely with FLCA. ISM is less strongly correlated with FLSE. OSM was unrelated to any aspect of their classroom emotions. These results suggest that when L2 learners clearly visualize and internalize their future selves, they likely experience less FLCA and more FLE about their own EFL learning. Their results, overall, replicated previous studies identifying the importance of L2 learners' most current and immediate experience with successful foreign language learning. However, the study further reveals that this experience may be a necessary but not sufficient condition for language development, and that learners' individual differences in motivation and emotion may determine the extent to which they can ultimately make the most of and turn such experience into acquisition. The study also indicates ISM could be a strong antecedent for successful L2 development, as it is believed to help learners foster their awareness, observation, and understanding of input. Participants' FLCA, on the other hand, is tied to their long-term achievement, but not to specific experience variables nor to short-term development. This also confirms previous results: anxiety fluctuates in the short term, but it is relatively stable over longer periods because of academic, cognitive, and social causes throughout the English L2 learning experience. Thus, regular L2 use in a positive emotional atmosphere impacts acquisition and accumulating such positive experiences in various L2 learning contexts might decrease learners' anxiety in the long run and might significantly boost their attainment in the SLA classroom.

The researchers use the results they obtained to suggest the following pedagogical implications: since learners in English LX classrooms typically have stronger OSM, teachers can incorporate ISM-enhancing activities into their lessons, specifically by adopting both promotion and prevention motivational strategies (Dörnyei \& Kubanyiova 2014). This study confirms the practice of teachers in classrooms can strongly stimulate learners' FLE (but not necessarily reduce their FLCA). Recommended effective practices include using the target language frequently and creating a friendly, pleasant, and amusing atmosphere where learners are constantly encouraged to use the target language without too much concern for making errors. Finally, teachers can contribute to more FLE
in the classroom by devising a range of interesting challenges involving risk taking, autonomy, and unpredictability beyond regular routine.

Dewaele and MacIntyre (2019) is a mixed-methods approach focused on the effect of learner-internal and learner-external variables on FLE and FLCA. The participants were 750 LX learners from around the world who filled out an online survey. The mean scores from all participants are 3.94 ( $\mathrm{SD}=.60$ ) for FLE, and 2.81 ( $\mathrm{SD}=.92$ ) for FLCA. The authors found confirming evidence that FLE and FLCA are negatively correlated but separate dimensions. Their analysis shows teacher-centered variables such as attitudes towards the teacher, friendliness of the teacher, and joking by the teacher strongly predict FLE. In contrast, FLCA is mostly predicted by the learners' place in the group hierarchy and the personality traits of neuroticism versus emotional stability (Dewaele \& MacIntyre, 2019, p. 271). An analysis of the qualitative data on enjoyable and anxietyprovoking episodes experienced by participants reveals that in descriptions of FLE episodes, self and teacher are both mentioned, whereas FLCA episodes are frequently linked to the self-without mention of the teacher.

One of the most interesting results in their study is the frequency with which various sources of FLCA and FLE made their impact, according to the number of mentions of those sources in feedback given by the subjects. Those sources are identified as self, selfpeer, self-teacher, and self-teacher-peer. According to the mentions in the feedback, FLCA stems from the self 38 percent of the time, 10 percent from self-peer, 26 percent from self-teacher, and 25 percent from self-teacher-peer. For FLE, percentages were 23, 11, 46, and 20, respectively. Data trends also suggest FLE rises, and FLCA falls with greater experience and mastery of the language. Perhaps this is not surprising especially in regard to FLE, since gains in proficiency enable more complex and satisfying interactions with speakers of the language. Apathy, demotivation, or a lack of emotional investment in language learning likely would produce low scores for both FLE and FLCA. Overall, social context seems to have a stronger effect on FLE, as positive classroom environments can boost a sense of community, common purpose, and flow. The same social context can occasionally become a source of acute anxiety when participants feel the teacher and peers have judged their performance negatively. The quantitative data showed FLCA is not intrinsically bad, as long as the environment remains positive. For some participants, the experience of anxiety in front of the class
was gripping but also transitory, with the relief of having emerged from the experience successfully boosting their longer-term confidence.

The main pedagogical implication of their study, in line with previous studies, is that teachers might be better placed to boost learners' FLE rather than trying to reduce their FLCA because anxiety seems to be a mainly learner-internal factor while FLE seems susceptible to environmental factors. A good teacher in this context means somebody who can create a positive climate in the classroom, where learners are gently encouraged to participate, play, and experiment with the FL with little fear of stinging ridicule. Several participants did point out that harsh correction or mockery by the teacher in front of peers boosted their FLCA and silenced them, lowering both their self-confidence and self-esteem. Encouragement by teacher and peers, typically during a challenging task such as a public presentation, helped participants deal with their anxiety.

Dewaele et al. (2019b) continue exploring the relationship between FLE, FLCA, and teacher-centered variables, but this time among English LX students from Spain. They surveyed 210 former and current learners of English through an online questionnaire composed of Likert scale items. The quantitative instruments used in the second experiment of this dissertation were adopted from this study. Their results coincide with most other studies reviewed in this section in finding a negative relationship between FLCA and FLE. FLE and FLCA are higher among students of native English-speaking teachers and teacher gender is unrelated to any significant variation. As per the rest of the variables, teacher's age, friendliness, and target language use are positively correlated with FLE (the former two more strongly than the latter), while strictness and accentedness are negatively correlated to it, the former very weakly. All teacher-centered variables have a much smaller correlation with FLCA, with strictness and accentedness showing a positive correlation and the other three a negative one.

The study is another contribution in confirming the separate natures of the dimensions of FLE and FLCA, despite their slight negative correlation. It also confirms teachers have more impact on FLE than on FLCA, with teacher friendliness being the stronger predictor of FLE. The researchers believe the effect teachers have on these emotions is partially intended and unintended, as variables such as age, or accentedness, are beyond the instructor's control. Classroom behavior, on the other hand, can be controlled to a higher
degree, and the positive aspects of this behavior can be enhanced through emotional intelligence training. The conclusions of this study, which are very relevant for this dissertation, indicate that a friendly, yet not overly strict teacher who works to create a positive atmosphere in the classroom has a positive impact on FLE, triggering the benefits the broaden-and-build theory attributes to positive emotions.

The studies analyzed above are but a selection of mostly quantitative studies in PP in SLA that either have been the most influential in the field so far (most cited) or the most relevant to this study. As indicated in the introduction to this subsection, in the last few years there are also relevant examples of PP in SLA research using a variety of methods and focuses, including purely qualitative studies, or mixed methods studies inspired by the idiodynamic method. A key qualitative study in the area, both for the field and this dissertation, is Pavelescu and Petrić (2018), an empirical study exploring the language learning emotions of four EFL adolescent students of English LX from Romania. The authors explore the positive emotions that four subjects associated with language learning, with a particular focus on the intensity and stability of such emotions. Two of the subjects expressed a strong and stable love of English, while the other two experienced enjoyment in their ELL without an intense emotional attachment to English.

Pavelescu and Petrić (2018) unveil that the fundamental driving force in the learning process is not FLE experienced in the classroom, but love. Love for English LX in their subjects created effective coping mechanisms (resilience) when there was a lack of FLE in certain classroom situations, motivating learners to invest greater effort into language learning in and out of the classroom. Therefore, they assert love broadens cognition and maintains engagement in learning. Their research also shows that despite love's central role, other positive emotions are also contributing factors to broadening students' perspectives. In fact, enduring positive emotions in teenage students' language learning processes-understood in a sociocultural perspective and defined as "Socially constituted syndromes (transitory social roles) which include an individual's appraisal of the situation, and which are interpreted as passions rather than as actions" (Averill, 1982, p. 4)-also play a crucial role in language learning. Emotions are contextualized, as part of the individual and the social experience in the language learning experience. The findings also provide evidence of the private dimension of positive emotions, through the
performance of pleasant activities in and outside the classroom. In all cases, though, the social dimension of the positive emotion is essential to the experience.

Even though the focus of the study is different than the focus of this dissertation, their multiple approaches to uncovering the details of students' emotions towards a language they are learning seemed very useful to exploring a key aspect of this dissertation research: the complex nature of OSM among learners of Spanish in Tennessee. As a result, their research methods were adapted to further explore motivation and emotions among selected subjects in this dissertation.

Other relevant qualitative studies include Galmiche (2017) and Resnik and Schallmoser (2019). Both offer novel approaches, with the former focusing on a novel negative emotion in the field: shame. The latter examines the effect innovative learning tools have on FLE. Galmiche (2017) articulates foreign language classroom shame (FLCS) in France by collecting quantitative data from thirty students asked to share their language learning experiences in the classroom. The responses collected indicate shame might affect French English LX learners' confidence, but also their sense of identity, self-worth, and selfesteem. FLCS is also found to elicit certain narrow-focus behaviors, such as avoiding group activities, withdrawing from LX learning, and the development of an enduring proneness to FLCA. For the author, understanding the role of FLCS in the language learning process is fundamental to better understanding the affective side of language learning, but also to being able to develop strategies to minimize it, which contributes to better results and increased well-being for learners.

Resnik and Schallmoser (2019), on the other hand, focus on researching the effect of a novel instructional strategy on L2 learning: an e-tandem scheme of language exchange between students of reciprocal languages from different countries-in this case, Austrian German L1 students of English LX, and British and American English L1 students of German LX. They used a category-based qualitative text analysis to help them conclude a majority of the subjects reported e-tandem contributed to their FLE. They were also able to identify specific sources for that FLE, including the opportunity to have authentic conversations in the target language, the self-esteem boost of the self-perception they developed as ambassadors for their own culture, and receiving instant, one-on-one feedback in a setting with limited power differential. One of the key theoretical
conclusions of this study is that, even though FLE is divided into social and private, both seem to be interlinked and you can positively affect both by boosting one.

Less impactful on research design in this dissertation, but nonetheless relevant in the field, are studies focused on teacher perspectives, or studies furthering the use of the idiodynamic method to better understand classroom emotions in a short-term context. The most influential teacher-centered studies are Agudo (2018), Mercer et al. (2016), and Mercer and Kostoulas (2018), while Boudraeu et al. (2018), Shirvan and Talebzadeh (2017), and Shirvan and Taherian (2018) stand out among those devoted to the idiodynamic method. One of the fundamental goals of the first three studies is to come up with strategies to promote positive emotions and moderate the effect of negative emotions, boosting performance and preserving well-being among teachers. Such is the focus of Mercer et al. (2016), which offer a series of regulation strategies that can be used to manage teacher emotions in situations that pose a challenge in the performance of their duties. Both Mercer and Kostoulas (2018) and Agudo (2018) are complete volumes with contributions from many authors, covering a wide range of topics. Within the former, psychological approaches dominate, with topics such as teacher motivation, identity, cognition, beliefs, emotional management, socio-emotional competence, attitudes, agency, and resilience. As per the latter, it divides contributions into five subtopics: theoretical contributions to set a research agenda, socio-emotional studies, teacherinternal emotional variables, SLA context specific emotional variables, and teacher emotionality.

Finally, the review of relevant empirical contributions to SLA research from the perspective of PP concludes with relevant studies implementing the idiodynamic method in mixed method studies. The first of them is Shirvan and Talebzadeh (2017), whose focus is to discern the effect of different topics on the moment-to-moment changes of FLE. Their subjects were Iranian university students of English LX. Their results indicate that the dynamism of FLE emerges not only within individuals, but also intra-personally between individuals under the influence of conversational topics. Their research design also examined the underlying factors of the dynamic fluctuations of FLE. To collect their data, they recorded a video of a process such as a conversation in the classroom, and then showed the recording to the participants and had them self-rate their levels of FLE during the conversation as they were watching. Afterwards, participants were interviewed
individually to gather further information and explanations for the reasons for changes in the intensity of their emotions, based on the participants' personal experiences. They confirm that enjoyable tasks promote more interest and engagement, as indicated by previous quantitative research. This relation between enjoyable tasks and interest proves to be bidirectional, as enjoyable topics can make communication tasks more enjoyable in conversation. A sense of collective joy also contributes to making topics seem more attractive to individual participants. Evidence is also found of many changes in FLE over a short period, with each individual subject showing unique profiles. Finally, unpreparedness and repetitive, predictable tasks are negatively linked with FLE.

Boudreau et al (2018) use the same method to measure moment-to-moment fluctuations of both FLE and FLCA, this time among ten Canadian English L1 students completing French L2 tasks. They also found many changes in both FLE and FLCA, fluctuating from positive, to negative, to zero. Even though FLE is reported during periods of low FLCA, both dimensions evolve separately and the relationship between them can shift in a matter of seconds. Examples of factors behind contextual shifts in experienced emotions include, for FLCA, forgetting a word in the target language while performing and then feeling their FLCA was spiraling out of control and, for FLE, performing a boring task, or having the opportunity to discuss an interesting topic.

Shirvan and Taherian (2018) also pick up the conclusions of Dewaele and MacIntyre (2016), stating FLE and FLCA are the left and right feet on the journey to acquiring a new foreign language. Based on those conclusions, they designed a mixed methods longitudinal study to investigate the growth and changing trends of university students' FLE and FLCA in a course of general English L2 using latent curve modeling and a triangulation of data collection. The sample is 367 students taking a 3-credit English class at the University of Bojnord (Iran) in the quantitative phase, with five of them participating in the qualitative phase. The findings indicate that while the participants' FLE increased significantly over time, their levels of FLCA decreased during the semester. However, the significance of the intercept and slope variances for both variables imply heterogeneity in the participants' growth in FLE and FLCA. In addition, the initial levels could not predict their growth over the course of the semester. Furthermore, the initial negative correlation between students' FLE and FLCA was low, but it turned out to be high as the semester progressed. The qualitative findings discovered instances in
which the subjects experienced simultaneously high levels of FLE and FLCA, but also moments of experiencing low levels of both at the same time. Their goal was to quantitatively explore the growth of FLE and FLCA among a large sample size of university students, moving then to a micro-level perspective gathering and analyzing qualitative data from five cases to explore the dynamics and fluctuations of both FLE and FLCA at the individual level. This two-pronged analysis was meant to come up with a clear description of the changing trajectories of both emotions during the course. Their findings support the fact that FLE and FLCA are constantly present in the language learners' classroom experience, linked to the context of the classroom in terms of teachers' behavior, peers' reactions, and the learners' experiences. Satisfactory performance in classroom assignments and being engaged in interesting tasks feeds students' FLE, whereas teachers' judgments or peers' negative reactions to responses feed FLCA. Other factors linked to FLCA include competitiveness and peer pressure, fear of negative evaluation when speaking a foreign language, and comparison with other classmates. The results also confirm MacIntyre and Gardner's $(1989,1991)$ assertion that the learner perceives FLCA as their regular trait anxiety at the beginning of the FL experience, but after repeated experiences in the environment, students may begin having feelings of anxiety directly associated to the language class experience. The same seems to apply to FLE. Specific experiences within the classroom are consistently linked with these processes: well-organized group activities, and positive attitudes towards the teacher or peers due to encouraging feedback increase FLE and decrease FLCA. Importantly, their results seem to confirm both FLE and FLCA are dynamic systems; they develop over time in unpredictable ways due to the interacting influences of bidirectional variables connecting learner and context. Both FLE and FLCA self-organize into attractor states where participants feel a stable state of anxiety and enjoyment. Finally, they are both sensitive to feedback and might change dramatically, experiencing the butterfly effect under the impact of small reactions like teachers' explanations, peers' judgments, or a sudden prompt paving the way for accomplishment in classroom activities. Selfexacerbating anxiety is another example of the butterfly effect. The findings of the qualitative portion of the research allow these authors to confirm the role that teachers' feedback, peers' reactions, quality of learning materials, and performance in the classroom tasks play the development of learners' FLE and FLCA. To summarize,
classroom emotions are sensitive to input, which means teachers should intently modify the variables under their control in order to maximize FLE and moderate FLCA.

Two papers published in 2019 were devoted to offering a snapshot of the state of the field, outlining future research ideas, and analyzing the collective contributions of PP in SLA in the 2016-2018 period. These are Dewaele et al. (2019a), and MacIntyre et al. (2019). The former asserts most studies adopting PP attempt to understand variation at both the individual and group level, with the goal being to optimize subjects' SLA strengths, but also their overall well-being, as well as SLA teaching, learning, and assessment. They highlight the enduring influence of MacIntyre and Mercer (2014) which called for studying classroom emotions over different timescales, using a variety of research methods. They conclude by noting how studies focused on individual perspectives are outgrowing those focused on groups, and teacher emotions are starting to attract the attention of researchers.

MacIntyre et al. (2019) indicate how, in the past few years, researchers of PP applied to SLA have been inspired by six key values adopted because of the direct influence of PP. These values, listed below, have contributed to expanding our understanding of affective variables in the SLA classroom:

1. The positive is as worthy of study as the negative
2. Evidence-based claims are the basis for advancing knowledge
3. Robust measures are available for a variety of purposes
4. Taking a strengths-based approach
5. Development of the whole person facilitates learning
6. Positive psychology characteristics empower individuals and communities

The authors believe the validity of these six principles is an excellent foundation to set the agenda for future research. The most relevant proposals to set that agenda, along with the latest critiques to this area of research, will be reviewed in the next subsection.

### 2.3.4.4 Critique and future lines of research

It has already been noted how the recently acquired relevance of PP-inspired research in SLA has also made it the object of criticism-something that most research approaches eventually face as they acquire maturity. Prior's (2019) "Elephants in the room: An 'affective turn,' or just feeling our way?" is perhaps the critique that has had the most echo.

Prior (2019) believes emotion has always been visible in L2 research, and he argues the presence of emotion in older research must be revisited to drive current research forward, rather than ignoring that presence and pitting it against current trends in what he deems a false "cognitive vs. emotive" trench line (Prior, 2019, p. 517). He also opposes the idea of the paradigm shift he believes some PP in SLA proponents are touting.

According to Prior, recent assessments about the past decade of SLA research focus on three points:

1. Researchers have been primarily interested in language learning and use as they relate to an individual's cognitive system or the brain.
2. Emotions have been largely ignored or misunderstood.
3. Currently, a turn towards the affective is underway which redresses the lack of attention to this dimension.

Prior reflects on the premise and potential of this affective turn and sees it as part of a larger movement that has challenged the traditionally cognitive, experimental, monolingual, essentialist and static perspective dominating traditional scholarship, and is thereby shifting focus from the experimental to the experiential. However, he does not share the optimistic narrative that proponents of PP in SLA have regarding this turn and warns against a potential bandwagon effect, or a shallow turn that is merely adapting old ideas while superimposing new terminology on them.

The author echoes how the relationship between emotion and cognition has been a source of contention among philosophers, scientists, theologians, and others for centuries. It can be traced to the Cartesian philosophy of mind-body dualism, which defined the rational mind and the material body as belonging to two separate spheres. Emotions would belong
in the bodily sphere and were thus viewed as involuntary excitations and sensations that arose from personal, biological, and social experiences. Cognition is associated with the mind, reason, objectivity, and masculinity, whereas emotion is associated with the body, sensation, primal impulses, subjectivity, and femininity. This Cartesianism, which is rejected as a worldview in the modern social sciences in general, still permeates language teacher education (and other areas). This debate within the larger scientific community is reflected in the field of SLA between cognitive or scientific research approaches and social and political perspectives - an example being the paradigm wars of the 1990s. For Prior, that proves emotions have been an object of study for SLA researchers for longer than some recognize, and they are far from dominant today, with cognitive based research perspectives still widespread in the field.

Another argument behind Prior's critique to proponents of a current affective turn in SLA is the fact the problem of defining emotion has not yet been resolved. Prior believes what emotion "is" and "means" depends on how it is socially shared and grounded in situ. Emotion should thus be approached through the ways in which it is regulated by social discourses and networks of power that tacitly expect and legitimize some emotions but not others. But without setting standard definitions of emotions, he argues it is not possible to claim an understanding of the whole "elephant," which is an issue magnified by the failure to fully recognize past attention to emotion, and the magnification of the current attention to it by the field.

In order to overcome these limitations, he believes attention should be given to a wide range of emotions, including love, which is, in his opinion, the true elephant in the room. He also suggests avoiding reductionist binaries, and instead accepting that any emotion can be facilitative or restrictive, motivating or demotivating, depending on the social and individual context. Finally, he indicates how scholars from indigenous cultures have adopted integrative perspectives that do not make cognition and emotion cancel each other out and he encourages recognizing these philosophical traditions and adopting aspects of them in future research designs.

Prior (2019) concludes his critique to recent PP in SLA research by asserting we are not in a single affective turn, but instead, there are multiple overlapping affective turns, each taking its own shape within and across subfields, disciplines, areas, topics, and
practitioners. Accepting the multidisciplinary nature of these turns will benefit SLA research by protecting it against what he calls "methodolatry," and by justifying the adoption of four islands of agreement (Prior, 2019, p. 524). These are:

1. Emotions are not just intra-psychological or bio-physiological phenomena.
2. Emotions are communicated, displayed, and responded to through a range of multisemiotic resources.
3. Emotions are actively managed and regulated.
4. Emotions take objects and objects take emotions.

These four islands of agreement are to be understood as partial and perspectival, so it is important for us to listen and communicate around their edges (the bodies of water that encircle every island). For that, open dialogue with past and present, recognizing past research on emotion in SLA, and reaching out across perspectives is necessary. Prior believes affective concerns will continue to evolve to meet challenges, as well as the individual and collective pursuits of the profession. However, what matters is no one owns emotion research, so the future should be collaborative and inter-multidisciplinary, instead of trying to figure out who is right.

Other authors in the same issue of the Modern Language Journal, like Lantolf and Swain (2019) or Kong (2019) concur with Prior on the need to avoid ignoring previous research in emotion and to integrate cognition and emotion in future research in L2 acquisition. Kong (2019) also considers there is an excessive focus on student emotions and not enough on teacher perspectives, and insists on the need for a contextualized, relational study of emotions. She also warns against ethnocentric approaches to the study of emotions in SLA, which frequently ignore pre-existing traditions beyond western academics, and influence the perception and analysis of emotions, as these are often studied through the cultural lens of the researcher. Kong (2019) concludes qualitative research is necessary to understand the multicultural variable of the impact of emotions in learning another language.

Dewaele (2019) responds to these criticisms. He agrees with the risks of terms like turn and paradigm shift for the recent attention paid to emotions in applied linguistics research in the past decade, but also argues the emic of PP in SLA research does not imply a
rejection of pre-existing and concurrent etic research. He also shares the result of a keyword analysis to reveal that the term emotion is nearly absent in journals like Applied Linguistics prior to 2010. Dewaele rejects the idea of an affective bandwagon and turn, and instead accepts there is a sharp increase in interest in the topic. He also believes this renewed interest in the area of emotion in SLA can be traced to specific events, such as a conversation he started with Aneta Pavlenko after the Second International Symposium on Bilingualism in 1999 (University of Newcastle). Both authors had noticed a higher frequency of vernacular and emotion words from students who progressed faster in their respective Dutch-French, and English-Russian classes. They published a joint article on the matter in 2002, and while analyzing the limitations of their study, they became aware that a different approach to investigating a wider range of issues around emotion and multilingualism was necessary. They developed a new instrument that brought back more clear results regarding multilingualism and emotion and committed themselves to bringing together colleagues from various disciplines who are interested in the issue of emotion and language learning. Dewaele's (2019) article concludes stating how his work with MacIntyre, inspired by PP, intends to take a more holistic look at how learners feel during classes, and hopes this work will lead to a shift in educational practices away from the dry cognitivist mindset still dominant in foreign language curricula.

Despite this defense, the same author, plus associates, logged their own critique of PPinspired research in SLA in Dewaele et al. (2019a). They identify key issues that have been noted in this subfield since its outset in 2012. The first one is the continued danger of oversimplification of the complex processes that interact in language learning, which risks sending a message to learners that the only path to learn the new language is by promoting positive feelings. However, these authors recognized that methodological advances introduced since 2016 have improved the situation and have allowed for more robust models that benefit from mutual triangulation. Other issues include the dominance of cross-sectional studies, and the proliferation of case studies, which provide insight but limited generalizability. Finally, they stress that interventional studies in the classroom are still rare despite the fact most studies under the umbrella of PP in SLA aim to help improve teaching, students' results, and well-being. These critical considerations imply future researchers should use novel methods, such as the idiodynamic one, explore other variables underlying the effect classroom emotions have on the learning process, and
favor longitudinal studies, which help draw clearer conclusions regarding causality, as well as interventional ones, to be able to measure the actual impact of positive emotion promotion in the language classroom.

The most comprehensive future research agenda set out in the PP in SLA sub field is the one proposed by MacIntyre et al. (2019). These authors celebrate the achievements of the field over the previous seven years as well as the perfect timing of developments in the field with a zeitgeist in general education research that has found a key driver in the promotion of well-being. They claim Oxford's (2016) EMPATHICS continues to be relevant as a theoretical framework, and indicate it is time for the ideas for practical interventions in the existing research corpus to become a focal point. They also make a point of connecting PP research with pre-existing frameworks, such as the good learner studies of the 1970s, and humanistic SLA teaching. As per the future agenda they propose, they believe it has already been proven PP can be successfully applied to SLA, so it is time to begin asking what that application is going to look like. Their agenda proposal is three-pronged, including recommendations for theoretical, empirical, and interventional studies.

Theoretically, they recommend future researchers look at negative and positive aspects of the learning experience together, with the aim of illustrating the complex emotional and psychological experiences of learners and teachers. They claim finding a theoretical balance between positive and negative emotions beyond simplistic notions should be a fundamental goal of PP in SLA research, as it would contribute to a transition into an anti-deficiency theory of the language learner and the instructor. This theoretical shift, they argue, should acknowledge everyone has resources that can either be tapped or developed to become successful learners or educators. They also recommend that researchers be culturally sensitive and take into consideration which characteristics are perceived as strengths in different cultural groups based on their own cultural norms. In summary, future theoretical research within PP in SLA should aim to build a paradigm in which strengths and weaknesses are both part of a system relevant to the individual in a culture-specific context, with the goal of identifying the strengths so they can be further developed.

Empirically, they indicate the breadth of possible themes opened by the adoption of PP as metatheory. However, this plurality of topics should go hand in hand with a strong base of empirical support to ensure relevance for the PP concepts applies in each study, as well as the efficacy of the interventions proposed as the basis of its conclusions. A diversity of methods is also recommended, with quantitative, qualitative, and mixed methods studies all serving different, valuable purposes.

Intervention research, they believe, should be culture-minded and recognize certain classroom practices may be effective in some cultural settings, but not so much in others. An area of need they identify includes programmatic research, in which the focus of the analysis is the impact of PP interventions (PPI) in a specific language program, both at the psychosocial and language development levels. They also believe teacher research should complement formal research programs to test the effects of the PPI on instructors. From a practical perspective, teachers should critically examine the existing empirically validated interventions and activities designed to boost learners' positive emotions and increase their well-being implementing some of those activities in the classroom. However, teachers themselves can practically benefit from this research, as they belong to a profession with a high burnout rate. They stress the importance of teachers undertaking activities - whether individually or in school or system-wide trainings-that help increase their professional and personal wellbeing. This training could help language teachers not just to survive in the classroom but thrive. This would benefit their students and their communities as well.

In summary, MacIntyre et al. (2019) believe the emergence of PP in SLA has been an exciting addition to the SLA field, which has already proposed new ideas for practical interventions, and whose efficiency is beginning to be backed by empirical evidence. The potential for individual and community benefits stemming from these interventions paint a bright picture for the future of PP-inspired research in SLA that could potentially team up with the advances of PP psychologists to continue exploring together concepts and processes that benefit individuals and society beyond skill-acquisition perspectives.

### 2.3.5 Classroom emotions: summary of concepts relevant to this dissertation

PP, as introduced by Seligman and Csikszentmihalyi (2000), and further developed by Seligman (2011) and Lomas and Ivtzan (2015), has inspired some SLA researchers to develop theoretical models to study the nature and effects of learners' and teachers' emotional experiences in the language classroom. The specific benefits or shortcomings of learners' emotional experience in the classroom was inspired first by Fredrickson's (2001, 2003) broaden-and-build theory, and further conceptualized specifically for the SLA field by Oxford's (2016) EMPATHICS. The first paper to make a specific call to implement PP findings in the SLA field was MacIntyre and Gregersen (2012), and the first empirical study researching positive and negative emotions in a language classroom was Dewaele and MacIntyre (2014).

The concept of FLCA present in research informing this dissertation-such as Dewaele and MacIntyre (2014), Dewaele and Alfawzan (2018), or Saito et al. (2018)—is dependent on the definition established by MacIntyre (1999), but it is applied in conjunction with a positive emotion, FLE. Research has shown both emotions present a slightly negative correlation, but operate on different planes, constituting two separate dimensions of the student emotional experience in the classroom. FLCA seems to be more dependent on internal rather than external variables, and although language teachers have the potential to make it worse, they do not seem to have a significant impact on reducing it. Some of the effects FLCA have been linked to decreased willingness to communicate in the target language, avoiding its practice and, ultimately, withdrawal and/or failure in LX classes.

This FLE is also present in research described in the previous subsection, such as Dewaele and Alfawzan (2018), Dewaele and Dewaele (2017), Dewaele and MacIntyre (2014, 2016), Dewaele et al. $(2017,2019)$ or Saito et al. (2018). According to the conceptualization established in Dewaele and MacIntyre (2016):

Enjoyment can be defined as a complex emotion, capturing interacting dimensions of challenge and perceived ability that reflect the human drive for success in the face of difficult tasks [...] occurs when people not only meet
their needs, but exceed them to accomplish something new or even unexpected [...] follows personal investment and requires having a stake in an outcome that matters to the person, something that is a self-relevant outcome. (p. 216)

This same study makes the case for the existence of two distinct dimensions of FLE: FLSE, derived from the satisfaction a student draws from a positive atmosphere in a language classroom, and FLPE, emanating from the internal pride and fulfillment a student can experience when overcoming a difficult task, or when completing a language assignment successfully. Research has found FLE to be more sensitive to external variables and input from teachers, which makes it a key malleable emotional component in the classroom. Henceforth, teachers can strive to boost this positive emotion to improve learners' results and overall well-being. Research has also associated FLE with increased willingness to communicate, higher motivational levels, increased proficiency, and better academic results.

What emerges from the literature review is that students constantly experience both negative and positive emotions in the FL classroom, and a range of learner-internal variables and learner-external variables such as the peer group, teachers and their pedagogical practices, and the resulting classroom environment causes these. Some of the independent variables interact and some may weigh more heavily on levels of FLCA and FLE for some students. More recent approaches to the study of these classroom emotions include figuring out to what extent the relationship between FLE and FLCA remain constant over time, whether mean levels of FLE and FLCA change, and whether the weight of learner-internal and learner-external variables in predicting FLCA and FLE shifts over time.

Teachers have been studied as variables on students' emotions, through their behavior (Dewaele \& Dewaele, 2017; Dewaele et al., 2017; Dewaele et al. 2019b), but also as emotional subjects themselves, in more recent research, such as Agudo (2018), Mercer et al. (2016), and Mercer and Kostoulas (2018). Dewaele and Dewaele (2017) shows teacher friendliness, target language use, and strictness, as well as the type of activities and tasks
completed in the language classroom are significantly correlated with emotions in the classroom.

Dewaele and Alfawzan (2018), and Saito et al. (2018) obtained results indicating FLE and FLCA are linked in complex ways with learners' L2MSS dimensions, and their results in the language classroom, while Pavelescu and Petric (2018) further clarify the ways language learners' emotional experiences impact their self-images as potential speakers of the target language.

This dissertation uses the instruments and analyses included in these influential studies to measure the reported FLCA and FLE of English L1 students of Spanish LX to explore the correlation between these emotions, motivation, and successful completion and persistence outcomes at the Spanish program at ChSCC. If the results obtained in previous research can be replicated, they could be used to demonstrate the need of implementing interventions to affect those classroom emotions positively, thereby benefitting students, their families, our community, and ChSCC's modern languages program.

### 2.4 Research questions

This dissertation advances four research questions based on the concepts analyzed in this chapter. The concepts include enrollment, persistence, and success in Spanish programs at American community colleges; motivation to learn other languages in general, with special attention to learning Spanish in the U.S.; the impact of classroom emotions on Spanish1010 students' persistence and outcomes, and how instructors can influence the former. The questions are:

RQ1. To what extent are the attitudes of students enrolled in Spanish at ChSCC towards the Spanish language and its speakers different from those of students who do not plan to enroll in Spanish?

The hypothesis is that students with positive attitudes towards Spanish and its speakers enroll in Spanish at a higher rate, whether their major requires it, or not.

RQ2. To what extent are FLE and FLCA within one specific educational context linked to teacher-centered external variables?

The hypothesis is teachers can intentionally increase FLE but their behavior is not as effective in reducing FLCA significantly.

RQ3. To what extent are the ideal self and ought-to self motivation constructs related to classroom emotions? Can they predict academic results and the decision to persist and enroll in the second semester of Spanish at Chattanooga State?

The hypothesis is ISM will be positively correlated to positive classroom emotions, as well as with outcomes such as persistence and academic results. OSM, on the other hand, will not have the same predictive power as it will be fragmented, contradictory, and will lack the avoidance-oriented nature that explains its influence in motivation in its original formulation.

RQ4. To what extent can FLCA and FLE predict academic results and the decision to persist and enroll in the second semester of Spanish at ChSCC?

The hypothesis is that FLCA and FLE can predict academic results and the decision to persist and enroll in the second semester of Spanish at ChSCC. FLCA is expected to correlate negatively with results and persistence, although that correlation may not be consistent. FLE is expected to be correlated with persistence and better grades. The methods to answer these research questions will be analyzed in detail in the next chapter.


### 3.1 The Study

This is a mixed methods study with four experimental designs. Quantitative data were collected across all experimental designs from the same pool of 72 community college L1 English-speaking students of Spanish LX at ChSCC. Course attrition brought the number of participating subjects from the original 70 to just 58 . In one of the experimental designs, data were collected from a control group comprised of 61 English L1 students of English 1010. Finally, qualitative data were collected from nine students belonging to the experimental group. The four experimental designs used to analyze the data are described below:

The first experiment is a quantitative synchronic study with a control group. Ordinal quantitative data were collected from two groups: the experimental group, with 70 students of Spanish 1010 at ChSCC, and the control group, with 61 students of English 1010. The study has two variables: the dependent variable is the decision to enroll in Spanish 1010 while studying at ChSCC, with the experimental group being formed by students who decided to do so, and the control group by students who have declared having no intention to do so. The independent variable is their respective attitudes towards the Spanish language, and towards Hispanics in the United States. The first group represents the totality of the studied population, as the total number of students taking Spanish 1010 on-campus courses at ChSCC at the time was 72 , and 70 chose to participate in the study ( 33 students enrolled in fully online Spanish 1010 courses were excluded from the study.) Meanwhile, the second group is a random sample of the approximately 8,000 students at ChSCC who opted to complete their studies in the fall semester of 2018 without enrolling in a Spanish class. To randomize their sample, participants were recruited at random from students enrolled in English 1010, which is the only freshman course that all students at ChSCC must take, no matter their academic major. Data were collected from 78 respondents, but those who declared a potential interest to take college Spanish in the future were eliminated from the study. This experiment design intended to find answers for RQ1: To what extent are the attitudes of students enrolled in Spanish at ChSCC towards the Spanish language and its speakers different from those of students who do not plan to enroll in Spanish? To explain how the decision to enroll and the
independent variable are related, qualitative data were collected from nine volunteer subjects from the experimental group.

The second experiment is an ex post facto research design. Multiple variables were examined and compared for the remaining 58 subjects from the original 70 participants in the first experiment. These data were collected five to six weeks into the semester, and those 58 were most of the 59 students who continued to be enrolled in Spanish 1010 (the remaining 13 students had already left the course). Quantitative ordinal data and qualitative data were collected from this single group of participants. The quantitative data were used to explore the relationship between enjoyment (divided into private and social) and anxiety in the SLA classroom, with multiple learner-external variables due to teacher characteristics. Qualitative data collected ex post facto from nine volunteers from among the 58 subjects were used to closer examine this relationship. This experiment intended to find answers for RQ2: To what extent are FLE and FLCA within one specific educational context linked to teacher-centered external variables?

The third experiment is also an ex post facto research design. ISM and OSM are compared to academic outcomes from the 70 participants in the experimental group in experiment 1 , and classroom emotions (enjoyment and anxiety) from the remaining 58 subjects in experiment 2. Qualitative data were collected to help measure their motivation according to the L2MSS construct, to better understand how motivation and classroom emotions are related in the studied context. Then, an attempt was made to connect L2MSS motivation with three different subject outcomes: persistence in the program (exemplified by enrollment in the next semester, Spanish 1020), final grade in the Spanish 1010 class, and proficiency growth in that class. Qualitative data were collected from the same nine volunteers referenced in experiments 1 and 2, primarily in order to better understand the nature of the OSM construct among students of Spanish LX at ChSCC. The purpose of this experiment was to find answers to RQ3: To what extent are the ideal self and oughtto self motivation constructs related to classroom emotions? Can they predict academic results and the decision to persist and enroll in the second semester of Spanish at ChSCC?

Finally, the fourth experimental design is also a quantitative synchronic study with control group. The two groups were identified by dividing the 58 participants studied in the second experiment into two groups. The first group comprised the 38 students who
persisted in their Spanish studies at ChSCC and enrolled in Spanish 1020 the next semester. Whereas the remaining 20 served as control group. Ordinal quantitative data were analyzed to compare three variables across both groups: FLE, FLCA, and the same student outcomes outlined in the third experiment. The intention was to find answers for RQ4: To what extent can FLCA and FLE predict academic results and the decision to persist and enroll in the second semester of Spanish at ChSCC?

Overall, these four experimental designs contribute to developing a picture of how the subjects fared in their journeys through the Spanish program at ChSCC from the fall of 2018 through the end of the spring semester of 2019. The focus of this analysis was the enrollment, persistence, and success of these students through this one-year long journey. Data regarding their reasons to enroll were contrasted with their attitudes towards the Spanish language and its speakers. Data regarding their persistence and success were contrasted with their reported levels of FLCA, FLE, and motivation. In turn, reported FLCA and FLE were contrasted with motivation and teacher-centered variables. Persistence was measured from fall to the spring semester, and success was understood in terms of academic results and the enhancement of performance in Spanish as a second language. In order to make the collected data regarding attitudes towards the Spanish language and its speakers relevant, the question batteries designed to measure these elements were administered to a control group of 61 students who had not enrolled in any Spanish LX classes at ChSCC and had explicitly declared their intention not to do so. These were students from three English 1010 classes, which is a general requirement for students enrolled in any degree program at ChSCC. Qualitative data were used to better illustrate the findings from quantitative analyses of attitudes, FLCA, FLE, and motivation, with a special focus on OSM-usually fragmented in students of LOTEs in the Anglosphere.

The final goal of the study was to validate preexisting research regarding the potentially positive impact of positive attitudes and emotions for language learners, which in turn could be used to justify two types of interventions. The first set of interventions would involve making global and cultural awareness instruction available at the school-wide level to improve the attitudes the general student population has towards the Spanish language and its speakers. These interventions would contribute to fulfilling the school's global and cultural awareness institutional student learning outcome (ISLO) and
contribute to reversing the decline in student enrollment in ChSCC's Spanish LX program. The second intervention-focused on Spanish instructors at ChSCC -would be rooted in developing PPI in the Spanish LX classroom. These interventions would have the potential to increase persistence, improve success, and contribute to future students' overall well-being.

### 3.2 The sample: Chattanooga State Community College and its students

Community colleges, junior colleges, or two-year colleges are a type of public higher education institution existing in some Anglophone countries, and countries in their former colonial sphere, such as India, Malaysia, or the Philippines. In the U.S., these institutions generally provide a variety of programs, including technical training for workforce development and college-transfer programs that allow students to complete up to the first two years of a bachelor's degree. Recently, many community colleges in the U.S. have also offered dual-enrollment programs where secondary education students complete general education courses that count towards both their high school diploma and towards higher education general education requirements. Due to the variety of programs offered, their low cost and their presence in areas frequently underserved by traditional universities, a wide variety of students usually share the community college classroom, in terms of age, ethnicity, and socioeconomic status.

ChSCC is one of thirteen community colleges administered by the Tennessee Board of Regents (TBR) system in the state of Tennessee. It is in the Southeastern region of the United States. In the fall of 2018, 8,241 students were enrolled at ChSCC. Roughly half of these students were full-time (4072). Demographically, 6,194 students were nonHispanic white, 1,004 were non-Hispanic Black, 504 were Hispanic of any race, 160 were Asian, 14 were Native American, and 8 were Hawaiian or Pacific Islanders. 324 declared to have more than one ethnicity and 33 did not declare any. 3,275 were males ( $39.74 \%$ ), and 4,966 females $(60.26 \%)$. Non-binary or other gender options were not options in school surveys at the time.

As stated above, community colleges offer college transfer programs, workforce development, and dual-enrollment programs. In the fall of 2018, 1,228 (14.9\%) of all
students enrolled in ChSCC were in a dual-enrollment program, 1,669 (20.25\%) were enrolled in the workforce development program (Tennessee College of Applied Technology (TCAT), and the remaining 5,344 (64.85\%) were enrolled as full or part-time students in the college credit program. Of the students in this last cohort, 1,978 (37\%) were classified as low-income students (based on their Pell Grant eligibility). These students were enrolled in 56 different majors and/or concentrations (Chattanooga State Community College IERP, 2020).

Based on age, ChSCC enrolls three types of students:

- Dual enrollment students: These are high school students taking community college classes to receive both high school and college credit for any given passed course. It is a quite popular hybrid program and, as a result, $14.9 \%$ of ChSCC students are 17 or younger. The most important characteristic of this group in regard of this study is that their parents and/or advisers often make their enrollment and persistence decisions. In addition, a second language sequence is required for their graduation, so they have less opportunity to have a choice in the courses they take. Many of them have had previous exposure to foreign language. This explains the overrepresentation of this group of students in Spanish classes, with 19 (27\%) of the students participating in this study belonging to this group.
- Traditional students: These are college students between the ages of 18 and 24. Decisions are usually made by themselves, with some influence from parents and advisers. Foreign language is required in a limited number of majors, and students are offered the opportunity to change their major to a very flexible "general transfer degree" that excludes foreign language from the requirements. Many of these students have had previous exposure to foreign language. $55.9 \%$ of ChSCC enrollment belongs to this group, as do $42(60 \%)$ of the students in this study.
- Non-traditional students ( 25 and older): There has been a surge of these students in Tennessee community colleges since 2018 due to the impact of the Tennessee Reconnect initiative, which offers free tuition to qualifying applicants. Students in this group usually make their own education decisions, with some influence from their advisers. Many of them do not have any previous exposure to foreign language. $29.1 \%$ of

ChSCC students are 25 and older, and they are underrepresented in Spanish classes: only $9(13 \%)$ participants in this study belong to this group.

Charts 3.1 and 3.2 show the trends in enrollment and semester-to-semester persistence in ChSCC's beginner Spanish courses. The data reflect results consistent with the MLA study for the entire country (Looney \& Lusin, 2018), with a very significant drop in 2016. The partial recovery in 2018 moderates the effect of that drop, which leaves the 20142019 enrollment trend at $-19.85 \%$. Overall enrollment at ChSCC fell by $13.2 \%$ in that same period. As per persistence, the rates of fall to spring persistence in foreign languages went from $42.7 \%$ in the 2015-2016 school year to $56 \%$ in 2016-2017. In 2017-2018, just $33 \%$ of students returned to take SPAN1020 - a significant anomaly that falls beyond the scope of the current study. ChSCC does not measure persistence of its general population from semester to semester, but in 2014-2017 the fall-to-fall persistence hovered between 52 and $54.50 \%$.

The foreign language section is modest, with just two full-time instructors and four parttime ones. At the beginning of the fall 2018 semester, there were 161 students enrolled in Spanish classes, 39 in French, and 22 in German, for a grand total of 222 students enrolled in second language programs. This is just $2.6 \%$ of total enrollment in the college. Sixtyone of these students were enrolled in fully online classes, and 159 in traditional campus courses with regular class meetings.

| Academic Year | Fall 2018 <br> SPAN1010 <br> (Year-to-year enrollment <br> trend) | Spring 2019 <br> SPAN1020 <br> (Fall-spring persistence) |
| :--- | :--- | :--- |
| $2014-2015$ | 131 | $62(47.3 \%)$ |
| $2015-2016$ | $145(+10.6 \%)$ | $62(42.7 \%)$ |
| $2016-2017$ | $100(-31 \%)$ | $56(56 \%)$ |
| $2017-2018$ | $93(-7 \%)$ | $31(33 \%)$ |
| $2018-2019$ | $105(+12.9 \%)$ | $58(55.2 \%)$ |

Chart 3.1: Trends in enrollment and persistence in SPAN1010 at ChSCC


Chart 3.2: Enrollment and Persistence Trends 2014-2019
This study focuses on 72 students enrolled in on-campus sections of the first semester of Spanish at the beginning of the fall of 2018. All of the students were invited by their instructors to participate in the study. Two potential subjects refused to participate, and 70 accepted. The data collection process implied three separate surveys for the quantitative portion of the study, and a limited number of case studies for the qualitative one. The original 70 subjects completed the first survey, administered during the second week of classes, in September of 2018. Fifty-eight of them took the second survey, administered during the sixth week of classes in October of 2018, because 12 participating students ( $16.6 \%$ ) had dropped out of Spanish 1010 over the first six weeks of classes. Fifty-two students took the third survey, administered in the fifteenth (and last) week of classes in December, so six more students dropped between weeks six and 15. However, none of the responses collected in this third survey were used in any of the four experiments conducted in this dissertation. Nine students volunteered to participate in qualitative case studies, with data collection taking place between March and April of 2019.

Prior to running this study, a Request for Approval to Conduct College-related Research was filed with the office of Institutional Research and Planning at ChSCC. Approval was granted on July $30^{\text {th }}$, about three weeks before the beginning of the semester, conditional
to subjects signing informed consent forms. All 72 students that enrolled in four sections of in-person SPAN 1010 classes in the fall semester were offered to enroll in the study during their first week of classes and were given a copy of an informed consent form based on APA recommendations. Signed approval from parents or guardians was sought for subjects under the age of 18 . Seventy of these students returned the form signed at the beginning of the second week of classes.

The same was true for 61 participants who served as control group for the first experiment: institutional approval was requested and granted, as well as the collaboration of three English 1010 instructors who volunteered to recruit participants in some of their classes. There was a higher degree of self-selection in this sample. Students in this control group recorded their acknowledgement to participate in the study by signing an informed consent form like the one signed by the 70 participants in the group that was studied. Samples of the informed consent forms, as well as institutional approval for conducting this research can be found in the appendix of this dissertation.

Nine students were recruited from the 38 original subjects who remained in the program and enrolled in SPAN 1020 for the spring of 2019. These students volunteered to participate in this study and were self-selected, but an effort was made to enroll participants of both genders and in all age groups. Seven participants were female and two were males. Age-wise, two belonged to the 17-under cohort, five to the 18-24, and two to the $25+$ one. Unsuccessful attempts were made to enroll participants from the 32 that had participated in the quantitative study but who did not persist in the Spanish program beyond the first semester. All nine participants who enrolled in the qualitative portion of the study remained in the study until the end of it.

### 3.3 Instruments and data collection

The quantitative portion of the study consists of three separate surveys conducted at three different moments of the subjects' journeys through their first semester of Spanish. In all three surveys, most of the questions are Likert-scale type questions. In a few questions, students were given the opportunity to recall classroom experiences. To protect student
identity and minimize bias, students were randomly assigned unique nicknames that remained constant through the research project, so a given subject's responses could be traced through the entire data collection process. All surveys were taken during Spanish 1010 (or English 1010) class time. Surveys were administered using Google Forms, and students were able to access them at individual computer stations in computer labs on campus.

The first one was administered during the second week of SPAN 1010 classes immediately after receiving signed informed consent forms from all participants. This survey is divided into four sections, and collected information regarding students' demographics, previous academic experience with the Spanish language, reasons for enrolling in SPAN 1010, ATS, ATH, ISM, and OSM. Responses regarding attitudes towards the language and its speakers were used in experiment 1 and responses regarding motivation were used in experiment 3. The first section of this first survey collects demographic data, their SPAN1010 class sections, and subjects' previous academic experience with learning Spanish LX, if any. Below are the items used in this section:

- Demographic data: Gender, age, nationality, first language, any other spoken language
- The time at which they were taking SPAN1010 (to determine in which one of the four sections they were enrolled).
- Whether they had taken a Spanish class before; if so, how many, where, when, and if it was a good experience or not. Subjects were also allowed to report significant positive or negative memories of these previous experiences.

The second section, items 1-6, includes four Likert scale items and one open question designed specifically for the study that inquired about the subjects' reasons to enroll in SPAN 1010. The section includes five items, such as:

- I am taking Spanish in college only because it is a requirement for my degree.
- If I could take any elective in the catalog to fulfill this requirement, I would still take Spanish.

The possible answers to items one through four are the classic response options: strongly disagree, disagree, neutral, agree, and strongly disagree. These items are designed to
better understand the reasons behind student enrollment in SPAN1010 courses at ChSCC. The official institutional understanding is that students take SPAN1010 when their degree requires it, or when a particular declared major has free elective credits as part of its educational program. Question five is open ended and was intended to collect qualitative data regarding enrollment attitudes. This brief questionnaire intends to explore to what degree the requirement, ATS, and ATH play a part in students' decisions to enroll in SPAN1010.

The third section, items 6-20, was meant to explore students' attitudes. The items in this section are all Likert-scale and are an adaptation of some items from Gardner's AMTB (Gardner et al., 1978). The items are inspired by a selection utilized by Acheson et al. (2015) for a study in an area culturally very similar to Chattanooga, TN. Five items intend to measure ATS and ten ATH. Some of the items are:

- I enjoy meeting and listening to people who speak other languages.
- The increasing presence of the Spanish language around us is a threat to American culture.
- The more I learn about Hispanic Americans, the more I want to be fluent in their language.

The possible answers to items 6-20 are the classic strongly disagree, disagree, neutral, agree, and strongly disagree. All items combined provide an overall measure of students' attitudes towards the Spanish language and its speakers. Certain combined items provide sub scores on their ATS (items 6, 7, 8, 19, and 20) and ATH (items 9-18).

The fourth and final section, items 21-29, includes nine Likert-scale items aimed at measuring ISM (5) and OSM (4), following Dörnyei's conceptualization of the L2MSS (Dörnyei, 2009), such as the examples below:

- I can imagine myself as someone who is able to speak Spanish.
- Learning Spanish is necessary because people around me expect me to do so.
- I have to study Spanish because, if I do not study it, it might hurt my career.

The possible answers for items 21-29 are also the classic strongly disagree, disagree, neutral, agree, and strongly disagree. Items 21-25 measured students' ISM and items 2629 measured OSM. Finally, there was an open-ended item for subjects to add any
comments they deemed relevant. Seventy responses were collected for survey one between September $3^{\text {rd }}$ and $9^{\text {th }}$.

The second survey was administered to the same cohort in the sixth week of classes, which was the first week of October 2018. The survey was delivered using the same method as the first (Google Forms, at a computer lab on campus, during class time). It includes items to collect basic demographics, measure students' self-perceptions of their academic progress up to that point, instructor-dependent variables, FLCA, and FLE. Instructor-dependent variables data were used in experiment two, whereas FLCA and FLE were both used in experiments two, three, and four. These items are divided into three sections, the first of which inquires about basic student demographic data (gender, age), the SPAN 1010 section to which they belonged, and an item informally measuring student progress up to that point in the course:

- What was the result on your last Spanish language test (in letter grade)?

Possible responses to this item are $\mathrm{A}, \mathrm{B}, \mathrm{C}, \mathrm{D}$, or F . The purpose of collecting the information in this first section was to facilitate the connection of the same subject's responses across surveys, and to get an informal measure of progress in the course.

The second section is devoted to measuring teacher-centered variables and uses an adapted version of the instrument used in Dewaele and Dewaele (2017), Dewaele et al. (2019b), and Saito et al. (2019). It is an 11-item battery with items such as:

- What is your attitude towards your current Spanish instructor?
- How friendly/approachable is your instructor?
- Your instructor cares about you.

These items are intended to represent different teacher-centered variables to check their correlation with students' FLCA and FLE. The variables 4, 5, 7, and 8 can be controlled by instructors somewhat directly, whereas 2,3 , and 6 are entirely beyond their control. Instructors can also have a degree of control over $9,10,11$, and 12, even though these represent students' subjective perceptions.

The third and final section in this second survey contains 20 items: 18 Likert scale items, and 2 open-ended ones. The purpose was to measure FLCA (eight of the items), and FLE
(10 items), adapting Horwitz et al.'s (1986) FLCA scale, and Dewaele and MacIntyre's (2014) FLE scale as used by Saito et al. (2018). Some of the items in this section are:

- I don't get bored in Spanish class.
- I enjoy my Spanish class.
- I'm a worthy member of the Spanish class.
- Even if I am well prepared for my Spanish class, I feel anxious about it.
- I always feel that the other students speak Spanish better than I do.

The possible answers for most items are strongly disagree, disagree, neutral, agree, and strongly disagree. Answers to the last two items were voluntary and open-ended. Items 13-17 measure FLPE, 18-22 FLSE, and 23-30 FLCA. Fifty-eight responses were collected between October $1^{\text {st }}$ and $5^{\text {th }}$. All questionnaires can be found complete in this dissertation's appendices.

That same week, a simplified version of the first survey was administered to the control group for attitudes towards Spanish and its speakers. Participation in this survey was offered to one hundred ENGL1010 students enrolled as freshmen at ChSCC, who had no plans of enrolling in any language classes while completing their studies with us. Seventyeight students agreed to participate and completed and signed an informed consent form. Two different ENGL1010 instructors administered the surveys during class time, in computer labs on campus, using Google Forms as the interface for delivery.

The survey was divided into two sections. The first one was devoted to demographic data such as gender, age, ethnic self-identification, and students' plans to take a Spanish course while at ChSCC. Seventeen students answered "yes" or "maybe" to this last question, and so they were removed from the study. The second section included the same items used in the first survey to measure subjects' attitudes towards the Spanish language and its speakers (items 6-20) and was configured exactly the way they were in that survey. Sixtyone valid responses were collected between October $1^{\text {st }}$ and $5^{\text {th }}$.

To conclude the quantitative data collection process, a third and final survey was administered in the last week of classes, the first week of December 2018. This survey measured motivation, FLCA, and FLE again, as well as students' self-perceptions regarding success, and their plans for enrollment in SPAN 1020 (the second in the series
of Spanish courses offered at ChSCC). It also added an extra item to explore the impact of the student-teacher relationship on ought-to-self motivation. Once again, surveys were administered through Google Forms, during class time, in computer labs on campus. Students used the same anonymous nicknames provided to them for the first survey. The items are divided into three sections. Section one contains 12 items, and collected the following information:

- Basic demographics (age, gender, and course section).
- Expected final grade in the class (A, B, C, D, or F)
- Plans to enroll in SPAN 1020 the following semester ("yes," "no," or "maybe").
- Reasons behind that decision.
- Perceived challenge of their SPAN 1010 course, ("very easy," "easy," "neither easy nor hard," "hard," and "very hard.")
- The evolution of their ATS and ATH ("continues being positive," "has improved," "continues being negative," or "has worsened.")

Section two contains the same items used in the second survey to measure FLCA, FLSE, and FLPE. Section three contains items 21-29 from the first survey, measuring ISM and OSM. An extra item was added to the OSM construct-"It's important for me to perform well in class so my instructor is not disappointed"-to explore the potential role of instructors as part of the OSM construct. Six students had dropped the program between October $5^{\text {th }}$ and November $30^{\text {th }}$, so the total number of collected responses was 52 , logged in between November $30^{\text {th }}$ and December $3^{\text {rd }}$. The initial intention of this third survey was to perform a longitudinal study of classroom emotions. However, this experiment was later dropped from this dissertation experiment design. As a result, the data collected from this third survey were not utilized. Data are preserved for potential use in future studies.

The quantitative data collection process was followed by a case-study based qualitative portion aimed at further exploring the contextual factors that influence the emotions described above, the complexities of English L1 American students' motivation to learn Spanish LX, and the potential avenues to impact emotions and motivation positively.

The instruments used to collect qualitative data included a self-report, inspired by Pavelescu and Petric (2018), and two extensive semi-structured interviews, in which selected questions from the first three surveys were asked again, giving subjects the
opportunity to further explain themselves. All 70 students participating in the first quantitative survey were invited to participate in the study in late January of 2019, early that spring semester. By mid-March, nine willing subjects had been identified. They completed all three qualitative data collection requirements and were all included in the final study.

The first instrument, from Pavelescu and Petric (2018), was a written task about language learning personal history. As part of this task, subjects had an opportunity to share their Spanish language learning experience in their own words. Questions were used to give participants an orientation on how to write it, with special emphasis given to emotional aspects of the experience. They were also encouraged to write as much as they wanted, in as much detail as possible, but they were not given any specific expectations regarding length. Students received the instructions for this first task on March $24^{\text {th }}, 2019$. They can be found in the Appendices section.

The purpose of this first instrument is to gain insight into the participants' personal circumstances regarding learning Spanish, from past to present. These stories were collected to help contextualize the semi-structured interviews conducted in the next phase of the study, plus provide valuable insight into students' motivations, emotions, and the impact those factors had on their decision to persevere in the study of a LOTE, Spanish, with an often-challenging sociolinguistic status in this part of the world. All nine responses to the language learning history prompts were written by students on their own time and in their own spaces and collected by email between April $2^{\text {nd }}$ and April $18^{\text {th }}$.

The second instrument consists of two semi-structured interviews. Two interviews were scheduled to limit the length of each session, countering the potentially negative effect of fatigue on the subjects. These interviews were scheduled at the convenience of the subjects and took place at an office on campus. The interviews were recorded with proper authorization granted by the subjects, and the resulting files were stored and handled in compliance with the research ethics guidelines in place at ChSCC Community College and recommended by the APA. Each interview is set with the idea of lasting about 30 minutes, but some of them fell short of that goal (the shortest interview is 26 minutes long), whereas others lasted much longer (the longest one is 51 minutes long). To collect high quality data, the first and last five minutes of each interview were devoted to open,
free flow questions in which students could talk about their own perspectives, whereas the most factual, substantive questions were reserved for the central part of the exchange.

Same as in Pavelescu and Petric (2018), the first interview intended to expand the collections of participants' own insights into their language learning experience, with a focus on further exploring the learners' language learning history, their feelings towards Spanish, contextual factors, and general motivation to learn Spanish. This interview had a detailed script, but also allowed for certain flexibility, with follow up questions asked when deemed useful.

The second round of interviews was closely connected to the quantitative portion of the study, and had questions devoted to exploring reasons to enroll in SPAN 1010, ATS, ATH, FLCA, FLE, ISM, OSM, and teacher-centered variables. Special attention was put on OSM, trying to further explore the complex picture this dimension of the L2MSS usually presents in students of LOTEs. This second interview was also semi-structured, providing enough room for follow up questions.

The first round of interviews took place between April $8^{\text {th }}$ and April $19^{\text {th }}$, and the second round between April $22^{\text {nd }}$ and April $30^{\text {th }}$, right before the end of the Spring semester (the last day of classes was May $3^{\text {rd }}$ ). There were at least two weeks between each subject's two interviews.

### 3.4 Data analyses

Data analyses were performed on the collected data using different methods depending on the nature of the RQ and the data collected to address it. Below is a summary of what data were analyzed, and how they were analyzed in each case.

RQ1. To what extent are the attitudes of students enrolled in Spanish at ChSCC towards the Spanish language and its speakers different from those of students who do not plan to enroll in Spanish?

The raw quantitative data collected from all the respondents to the first survey $(\mathrm{n}=70)$ and the control group ( $n=61$ ) were recorded as numbers, using a scale from 1 to 5 . Items
representing statements reflecting a positive attitude received 5 for the most positive response and 1 for the most negative, with the opposite coding being used for statements reflecting negative attitude. To determine differences between the main group and the control group, descriptive statistics operations were run first. Cronbach's alpha analyses were used to demonstrate the reliability of each set (attitudes towards Spanish, attitudes towards U.S. Hispanics). Since the data regarding attitudes were non-parametric, responses were divided between those having a positive attitude (average score of 4 or higher) and those having a negative attitude (average of 3 or less). Those in the middle were equally divided between both groups. Chi-square and Fisher's exact tests were then run for each of the attitudes contrasting the treatment and control group. Then a logistic regression was run to verify whether each variable indeed predicted the decision to enroll or not in Spanish 1010.

The qualitative data collected from item five were analyzed to further clarify the quantitative data, establishing categories that referred to the impact of attitudes towards the languages and its speakers compared with other variables, such as graduation prerequisites. After selective coding, a simple content analysis was performed on the data, identifying certain themes, and quantifying the number of mentions across the different subjects.

Open-source web-based calculators were used to run the statistical operations described above, and ATLAS was used to compile, organize, and interpret the qualitative data.

RQ2. To what extent are FLE and FLCA within one specific educational context linked to teacher-centered external variables?

To answer this question, quantitative data from the second survey (items 2-32) were utilized. Since all items were Likert scale, responses were coded numerically, with low enjoyment/anxiety items being reversely coded so high scores = high enjoyment/anxiety. Items 2-12 served as individual, teacher-centered variables, whereas 13-22 and 23-32 corresponded to the FLE and FLCA constructs utilized in previous research (Dewaele \& Dewaele, 2017; Dewaele \& MacIntyre, 2014; Saito et al, 2019). These sets were chosen based on the reliability they showed in these previous studies.

A Cronbach's alpha analysis was run to test the internal consistency of the results for FLSE, FLPE and FLCA. One item had to be removed from the FLSE construct so the set could achieve adequate internal consistency. First, Pearson's and Spearman Rho correlation analyses were run to reveal potential relationships between FLCA, FLPE, and FLSE. Then, since the data were non-parametric, respondents were divided into two groups: those having high FLCA, FLPE, and FLSE (scores of 4 or more), and respondents reporting a low level of the classroom emotions (scores of 3 or less). Respondents with scores in between were equally divided between the two groups. Then Chi-square and Fisher's exact tests were run contrasting each of these groups with each of the teacher center variables examined in this experiment. The same relationships were further explored through Pearson's and Spearman Rho correlation tests.

Finally, qualitative data were analyzed to gain insight on the relationships unveiled by the analysis of quantitative data. Same as in the preceding experiment, data were selectively coded after an initial content analysis. Codes were then organized based on their themes, and their incidence and prevalence among respondents was recorded.

Once again, open-source web-based calculators were the tool of choice to run quantitative tests, and ATLAS was used to compile, analyze, code, and interpret the qualitative data.

RQ3. To what extent are the ideal self and ought-to self motivation constructs related to classroom emotions? Can they predict academic results and the decision to persist and enroll in the second semester of Spanish at Chattanooga State?

To answer these questions, quantitative data regarding motivation were collected from the first survey (items 21-29), classroom emotions data from the second survey (items 13-32), and data regarding student outcomes were extracted from the school's Banner system, which records academic student data.

Since there was a different number of subjects taking the first and second surveys (70 and 58 , respectively), the motivation responses for the 12 students who did not take the second were removed from the first set of operations, which was devoted to exploring the relationship between motivations and emotions. Same as before, all items were Likert scale and responses for classroom emotions were coded numerically following exactly the procedure enunciated in the previous section. Motivation data received similar
treatment, with low motivation items being reversely coded so high scores equal high motivation. All instruments used in this analysis had shown high levels of reliability in many previous studies, from Dörnyei et al. (2006) through Kim et al. (2017.)

Cronbach's alpha tests were run first to measure the reliability of the motivation constructs. Then due to the non-parametric nature of the data, Chi-square and Fisher's exact tests were run to see if there was a significant relationship between high/low ISM, high/low OSM, and the three classroom emotions used in experiment two. Subjects were divided into two groups based on reporting high motivation (4 or more) or low (3 or less). Then, as usual, those students with scores in the middle were divided between the two groups. Pearson's correlation analyses were run then to further explore such relationships.

Next, an attempt was made to examine the relationship between both motivation constructs described above, and three types of student outcomes. The first one was persistence in the program, defined as the student decision to enroll in the next semester of Spanish or not. The second was academic success, characterized by the final grade obtained at the end of the semester. The third and last was increase in proficiency, measured by the differential between a pre and post-test every student completed at the beginning and the end of that first semester. The relationship between motivational constructs and persistence was explored using Chi-square tests, Fisher's exact tests and logistic regressions, whereas the relationship between motivation and academic success and proficiency was explored through Pearson's and Spearman Rho correlation tests.

Finally, qualitative data were collected to try to further explore the OSM construct. These data were collected from the nine case studies conducted during the spring semester of 2019. The language histories had already been gathered as electronic documents, and so did not need any further processing. The interviews, however, were transcribed using ELAN software. Once all the material was in electronic format, the data were coded guided by RQ3 and the latest research regarding OSM in the study of LOTEs. A focus was placed on the way motivation to persist, or desist, in the endeavor to learn Spanish was influenced by different actors within the subjects' immediate surroundings. However, since this portion of the study was exploratory in nature, data drove coding as well, and categories were created as they surfaced from the preliminary analyses of the data. Six key codes were identified: family in general, specific family members, romantic partners,
teachers, friends and peers, and society at large. For each instance under this code, attention was placed on the relative impact of that external influence, its intention (motivating or demotivating) and effect (directly encouraging, reactively encouraging, etc.), its salience in the subjects' report, and its effect. These data were coded using ATLAS software. The resulting analysis was contrasted with the quantitative OSM these nine subjects reported in the second survey taken in the fall of 2019.

RQ4. To what extent can FLCA and FLE predict academic results and the decision to persist and enroll in the second semester of Spanish at Chattanooga State?

Here the data used were emotion scores (FLSE, FLPE, and FLCA) from the second survey, while data regarding student outcomes were extracted once again from the school's Banner system. The sample was divided into two groups based on persistence: the thirty-eight students who completed SPAN 1010 and enrolled in SPAN 1020 the next semester, and the twenty students who either dropped SPAN 1010, failed it, or passed but decided not to continue studying the language.

Cronbach's alpha analyses were not necessary, as the set at play had already been used in the analyses performed to answer RQ2 and RQ3. Chi-square tests, Fisher's exact tests, and logistic regressions were the analyses of choice, with the goal being to verify whether each variable indeed predicted the decision to enroll in Spanish 1020 or not. Finally, Pearson's and Spearman Rho correlation tests were run to explore the relationships between FLSE, FLPE, and FLCA on the one hand, and subjects' academic success (grades) and proficiency gains (pre-test/post-test differential scores). Open-source webbased online tools were used to perform these calculations.


Chapter 4 is devoted to an exposition of the results of the analyses performed on the collected data based on the methods outlined in the preceding chapter. The narration is organized around the research questions and the corresponding hypotheses introduced at the end of Chapter 2.

### 4.1 Attitudes and enrollment

The first section of Chapter 4 is devoted to sharing the results obtained through the analyses of quantitative and qualitative data collected through an experimental design intended to answer RQ1. This research question was focused on finding the relationship between students' attitudes, including ATS and ATH, and their decisions to enroll in Spanish 1010 at ChSCC. The specific language of the research question was: "To what extent are the attitudes of students enrolled in Spanish at Chattanooga State towards the Spanish language and its speakers different from those of students who do not plan to enroll in Spanish?" The proposed hypothesis is that these attitudes would significantly influence that decision.

To find answers for this research question, student ATS and ATH were measured through the collection and analysis of data. Quantitative data were collected through the two batteries of Likert scale questions referenced in Chapter 3 and reproduced in the appendices of this dissertation. The purpose of the questions was to detect the influence of these two aspects of an attitudinal variable in the students' decisions to enroll in a Spanish 1010 course at ChSCC . The same instrument was used to collect data from a control group (61 students with no plans to enroll in Spanish) and an experimental group (70 students enrolled in Spanish 1010 in the fall of 2018).

The variables are:

- Attitudinal variable: Attitudes towards a) the Spanish language (Likert scale, 15), and b) Spanish speakers in the US (Likert scale, 1-5)
- Decision to enroll in Spanish 1010 at ChSCC (binary, 1-0)

The supported hypothesis was that both attitudes are positively correlated with the decision to enroll in Spanish 1010. The null hypothesis would deny this relationship. This null hypothesis usually reflects the college administration's policy, which assumes that
students only enroll in college language courses at ChSCC when they are required to do so by their degree plan.

Data treatment:

A pilot run of the experiment was performed on two groups of Spanish 1010 students during the summer semester of 2018, which included a total of thirty-five students. This pilot run offered consistent results, and the subjects reported no confusion or hesitance towards any of the items in the questionnaires.

A Cronbach's alpha analysis was performed to determine the reliability and internal consistency of both question sets. Positive results were expected, as these instruments have been widely utilized before. They were extracted with minimal variations from the AMTB, a battery that has been circulating for decades. The five items measuring ATS yielded a Cronbach's alpha coefficient of .726 among experimental group respondents and .710 among the control group ones. Both figures are within the acceptable range of .7 to .8. The ten items measuring ATH had a Cronbach's alpha coefficient of .852 among treatment group respondents, and .895 among control group ones. These two coefficients are within the range considered "good" (. 8 to .9 ). The results confirm the sets were coherent and suitable to be further analyzed.

The average scores obtained for each construct from the experimental group were:

| Coded name | Gender | ATS | ATH |
| :--- | :--- | :--- | :--- |
| Amaranth bear | Male | 3.6 | 4.1 |
| Amaranth zebra | Female | 3.2 | 3.4 |
| Amaranth giraffe | Female | 4 | 4.2 |
| Beige wolf | Female | 5 | 3.6 |
| Black zebra | Male | 4 | 4.3 |
| Blue rooster | Female | 4.6 | 4.9 |
| Brass peacock 1 | Male | 5 | 4.8 |
| Brass peacock 2 | Male | 2.8 | 4 |
| Brass sheep | Male | 4.8 | 4.6 |
| Brown lion | Female | 2.8 | 4.2 |
| Brown sheep | Female | 3.8 | 3.9 |
| Burgundy hedgehog | Male | 3.8 | 3.7 |
| Burgundy horse | Male | 4.6 | 4.7 |
| Burgundy zebra | Female | 4.8 | 4.5 |
| Gray tiger | Female | 5 | 4.7 |
| Green hippo | Female | 4.2 | 4.3 |
|  | 159 |  |  |


| Green kangaroo | Female | 4.4 | 4.2 |
| :---: | :---: | :---: | :---: |
| Grey pig | Male | 4.2 | 3.8 |
| Blue dolphin | Female | 4.2 | 4 |
| Magenta bear | Female | 4.4 | 4.5 |
| Red Pig | Male | 3 | 2.7 |
| White mare | Female | 4.4 | 4.3 |
| Amaranth sheep | Female | 4.6 | 4.5 |
| Amaranth zebra | Female | 5 | 4.9 |
| Amaranth zebra 2 | Female | 4.6 | 4.3 |
| Amaranth zebra 3 | Male | 4.2 | 4.2 |
| Amber zebra | Male | 4.2 | 4.6 |
| Amber lion | Male | 3.6 | 3.6 |
| Auburn tiger | Female | 4.2 | 4.1 |
| Brass horse | Male | 3.6 | 3.1 |
| Brown zebra | Female | 4 | 3.4 |
| Burgundy elephant | Female | 4.4 | 4 |
| Gray hippo | Male | 3.8 | 3.6 |
| Gray lion | Male | 3.8 | 3.8 |
| White pig | Female | 3.2 | 4.6 |
| Amaranth pig | Female | 3.8 | 4.4 |
| Amber hedgehog | Female | 3.6 | 4.5 |
| Amber zebra | Female | 4.4 | 4.2 |
| Auburn horse | Nonbinary | 4.2 | 3.2 |
| Brass lion | Female | 5 | 4.5 |
| Black zebra | Male | 3 | 2.5 |
| Black peacock | Male | 1.8 | 4.3 |
| Bone zebra | Male | 5 | 4 |
| Brass camel | Female | 4.8 | 4.6 |
| Brown lion | Female | 4.6 | 5 |
| Burgundy hippo | Male | 4.6 | 4.3 |
| Cyan zebra | Female | 4.2 | 3.7 |
| Cyan hippo | Female | 4.2 | 4.2 |
| Gray lion | Female | 4.2 | 4.2 |
| Gray zebra | Female | 3.4 | 3.3 |
| Magenta bear | Female | 4.4 | 4.2 |
| Gray rabbit | Male | 3.8 | 4.2 |
| Pink zebra | Female | 4.6 | 4.8 |
| Purple pig | Female | 3.4 | 4 |
| Red Tiger | Male | 3.8 | 4.1 |
| Bone camel | Male | 3.8 | 4.5 |
| Auburn hedgehog | Female | 4.6 | 4.6 |
| Beige hippo | Female | 4.8 | 4.9 |
| Blue sheep | Female | 4.8 | 4.1 |
| Blue zebra | Female | 4.6 | 4.3 |
| Brown camel | Male | 3.8 | 3.5 |
| Brown hippo | Female | 4.4 | 3.7 |


| Brown rabbit | Female | 4.4 | 4.6 |
| :--- | :--- | :--- | :--- |
| Burgundy goat | Female | 3.6 | 3.7 |
| Cyan zebra | Female | 4.2 | 3.7 |
| Gray lion | Female | 5 | 4.8 |
| Green giraffe | Female | 4.2 | 4 |
| Red peacock | Male | 4.2 | 3.5 |
| Tan bear | Male | 4.8 | 4.3 |
| White goat | Female | 4.8 | 4.8 |
|  | Average: | $\mathbf{4 . 1 6}$ | $\mathbf{4 . 1 3}$ |
|  | St. Dev: | $\mathbf{0 . 6 3}$ | $\mathbf{0 . 5 2}$ |
| Chart 4.3: Experimental group results for ATS and ATH |  |  |  |

The equivalent data for the control group set were:

| Coded name | Gender | ATS | ATH |
| :---: | :---: | :---: | :---: |
| CGS1 | Female | 5 | 5 |
| CGS2 | Male | 4.4 | 4.2 |
| CGS3 | Female | 3.2 | 3.3 |
| CGS4 | Female | 4.2 | 3.6 |
| CGS5 | Male | 5 | 3.8 |
| CGS6 | Male | 4.6 | 4.1 |
| CGS7 | Male | 2.4 | 3 |
| CGS8 | Female | 4 | 3.6 |
| CGS9 | Male | 3.8 | 4 |
| CGS10 | Female | 4.2 | 4 |
| CGS11 | Male | 2 | 2 |
| CGS12 | Male | 3.4 | 3.8 |
| CGS13 | Female | 3.4 | 3.7 |
| CGS14 | Female | 4 | 3.8 |
| CGS15 | Male | 3.2 | 3 |
| CGS16 | Male | 2.4 | 2.7 |
| CGS17 | Female | 5 | 4.3 |
| CGS18 | Female | 3.6 | 3.3 |
| CGS19 | Female | 3.6 | 3.4 |
| CGS20 | Female | 5 | 4.2 |
| CGS21 | Male | 3.6 | 3.4 |
| CGS22 | Female | 5 | 4.5 |
| CGS23 | Female | 4 | 4.2 |
| CGS24 | Female | 3.4 | 4.2 |
| CGS25 | Female | 3.8 | 4.6 |
| CGS26 | Female | 3.8 | 3.5 |
| CGS27 | Female | 3.6 | 4.4 |
| CGS28 | Male | 3.8 | 3.7 |
| CGS29 | Female | 3.2 | 3.2 |


| CGS30 | Male | 4.6 | 4.2 |
| :--- | :--- | :--- | :--- |
| CGS31 | Male | 3.6 | 4.3 |
| CGS32 | Male | 3.8 | 2.4 |
| CGS33 | Male | 2.4 | 2.5 |
| CGS34 | Male | 4.2 | 3.9 |
| CGS35 | Female | 2.6 | 3.3 |
| CGS36 | Female | 3.2 | 2.8 |
| CGS37 | Female | 2.6 | 2.8 |
| CGS38 | Female | 4.2 | 4.1 |
| CGS39 | Male | 3.2 | 2.7 |
| CGS40 | Male | 3.8 | 3.4 |
| CGS41 | Female | 3.8 | 3.6 |
| CGS42 | Male | 4.2 | 3.9 |
| CGS43 | Female | 3.4 | 3.4 |
| CGS44 | Male | 3.4 | 3 |
| CGS45 | Female | 2.8 | 1.8 |
| CGS46 | Female | 3.2 | 2.7 |
| CGS47 | Female | 3.8 | 3.8 |
| CGS48 | Female | 3 | 3 |
| CGS49 | Male | 3.4 | 3.3 |
| CGS50 | Female | 3.4 | 3.8 |
| CGS51 | Female | 3.6 | 4 |
| CGS52 | Male | 3.2 | 3.6 |
| CGS53 | Female | 4 | 4.4 |
| CGS54 | Male | 3.2 | 1.6 |
| CGS55 | Female | 3.8 | 4.2 |
| CGS56 | Female | 3.6 | 3.1 |
| CGS57 | Male | 3 | 2.9 |
| CGS58 | Male | 3.8 | 3.7 |
| CGS59 | Female | 3.2 | 3.4 |
| CGS60 | Male | 4 | 3.7 |
| CGS61 | Male | 3 | 3.6 |
|  | Average: | $\mathbf{3 . 6 3}$ | $\mathbf{3 . 5 3}$ |
|  | St. Dev: | $\mathbf{0 . 6 7}$ | $\mathbf{0 . 6 8}$ |
|  |  |  |  |

Chart 4.2: Control group results for ATS and ATH

The next analyses were Chi-square and Fisher's exact tests to determine if there was a statistically significant difference between the expected and observed frequencies in a two-category contingency table for each one of the attitudinal dimensions. Responses were classified within two mutually exclusive categories: positive ATS or ATH (respondents with average scores between 4 and 5) and negative ATS or ATH (average
scores under 3). Respondents with neutral attitudes (average scores between 3 and 3.99) were equally divided between both groups.

The results regarding ATS are in chart 4.3:

|  | \# of respondents with a <br> positive attitude | \# of respondents with a <br> negative attitude |
| :--- | :---: | :---: |
| Experimental group (70) | 56 | 14 |
| Control group (61) | 36 | 25 |
| Chi-square | $\mathbf{X}^{2}=\mathbf{6 . 8 6}$ | $\mathbf{p}=. \mathbf{0 0 8 8}$ |
| Fisher's exact | $\mathbf{p = . 0 1 2 4}$ |  |

Chart 4.3: Experimental group results for ATS and ATH
The results regarding ATH are shown in chart 4.4:

|  | \# of respondents with a <br> positive attitude | \# of respondents with a <br> negative attitude |
| :--- | :--- | :--- |
| Experimental group (70) | 58 | 12 |
| Control group (61) | 36 | 25 |
| Chi-square | $\mathbf{X}^{2}=\mathbf{9 . 1 4}$ | $\mathbf{p = . 0 0 2 5}$ |
| Fisher’s exact | $\mathbf{p < . 0 0 1}$ |  |

Chart 4.4: Chi-square \& Fisher's exact test results for ATH
The Chi-square and Fisher's exact coefficients, as well as the p values, indicate subjects in the experimental group are significantly more likely to have positive ATS and ATH than those in the control group. There is enough evidence to determine the observed frequencies are not the same as the ones observed according to the null hypothesis. Hence, we can conclude that there exists a correlation between ATS and ATH, and the decision to enroll in Spanish 1010 at ChSCC.

The next analysis performed on this data was a logistic regression, to determine to what degree student attitudes predict the decision to enroll in SPAN1010. The results are in chart 4.5:

| Variable | Coefficient | Standard error | p-value | Odds ratio | 95\% confidence interval |
| :--- | :--- | :--- | :--- | :--- | :--- |
| ATS | 1.2104 | 0.3038 | $\mathbf{< . 0 0 1}$ | $\mathbf{3 . 3 5 4 7}$ | $(1.8496,6.0846)$ |
| Constant | -4.5907 | 1.2021 | $\mathbf{< . 0 0 1}$ |  |  |
| ATH | 1.7085 | 0.3719 | $\mathbf{< . 0 0 1}$ | $\mathbf{5 . 5 1 9 0}$ | $(2.6625,11.4403)$ |
| Constant | -6.4638 | 1.4598 | $\mathbf{< . 0 0 1}$ |  |  |

Chart 4.5: Logistic Regression for ATS and ATH vs. enrollment in SPAN1010
According to the logistic regression, the p -value for each attitude is clearly below the generally accepted value of < .05. These figures indicate the associations between each of the variables and the decision to enroll in Spanish 1010 is statistically significant. The odds ratio for the ATH is 5.5190 , significantly higher than the 3.3547 due to subjects' ATS. These results indicate a student within the data set with a positive ATH is more than five times more likely to enroll in Spanish 1010 than a student with a negative attitude.

Qualitative data was collected from nine volunteers within the quantitative experimental group. Since this type of data was not collected from anyone within the control group, these do not help clarify how attitudes affect the decision not to enroll Spanish 1010. However, it helps shed more light on how subjects verbalize the impact of their attitudes on the positive decision.

These data were gathered in the spring of 2019, and it provided insight on the sociolinguistic ideologies of the nine subjects. Fundamentally, there was an interest in exploring the students' ATS and ATH, the factors that influenced those attitudes, and how they affected their decisions to enroll in Spanish. A narrative and two interviews were collected in three separate instances from the nine subjects. The average scores for this selected group in the quantitative study were 4.49 for their ATS, and 4.325 for their ATH. The scores reflect distinctly positive attitudes toward both constructs and are above the averages collected among the members of the experimental group (to which these subjects belong), which were 4.16 and 4.13 , respectively. The standard deviations for
each indicator were 0.33 and 0.47 , inferior to the standard deviation of the complete quantitative sample ( $\mathrm{n}=70$ ), which was 0.63 and 0.52 respectively.

Chart 4.6 contains the answers these nine subjects provided for each of the five items used in the quantitative portion of the study to characterize their ATS:

- Item 5: I enjoy meeting and listening to people who speak other languages.
- Item 6: Because the United States is relatively far from many countries speaking other languages, it is not important for Americans to learn foreign languages.
- Item 7: English-speaking Americans should make a greater effort to learn the Spanish language.
- Item 18: The increasing presence of the Spanish language around us is a threat to American culture.
- Item 19: The more I learn about Hispanic Americans, the more I want to be fluent in their language.

| Coded name | Item 5 | Item 6 | Item 7 | Item 18 | Item | $A V G$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| White Mare | 4 | 4 | 5 | 4 | 5 | 4.40 |
| Burgundy Hedgehog | 4 | 4 | 3 | 4 | 4 | 3.80 |
| Green Kangaroo | 4 | 5 | 4 | 4 | 5 | 4.40 |
| Brown Lion | 5 | 4 | 4 | 5 | 5 | 4.60 |
| Gray Rabbit | 5 | 5 | 3 | 5 | 4 | 4.40 |
| Magenta Bear | 5 | 5 | 5 | 4 | 4 | 4.60 |
| Brown Hippo | 5 | 5 | 4 | 4 | 4 | 4.40 |
| Gray Lion | 5 | 5 | 5 | 5 | 5 | 5 |
| White Goat | 5 | 5 | 4 | 5 | 5 | 4.80 |
| Average: | 4.67 | 4.22 | 4.11 | 4.44 | 4.56 | 4.49 |
| St. Dev.: | 0.50 | 0.50 | 0.78 | 0.53 | 0.53 | 0.33 |

Chart 4.6: Quantitative ATS scores from qualitative subjects
Legend for items 5, 7, and 19: 1. Strongly disagree, 2. Disagree, 3. Neutral, 4. Agree, 5. Strongly Agree. Legend for items 6 and 18 (reverse coded): 5. Strongly disagree, 4. Disagree, 3. Neutral, 2. Agree, 1. Strongly Agree

Chart 4.7, below, has the subjects' answers for all ten items used in the quantitative portion of the study to typify their ATH:

- Item 8: For the most part, Hispanic Americans are sincere and honest.
- Item 9: As a general rule, Hispanic American residents bring drugs and gangs with them.
- Item 10: Most Hispanic Americans are very hardworking.
- Item 11: Hispanic Americans are a burden on this country's economy.
- Item 12: Hispanic American immigrants should assimilate or go back to their countries.
- Item 13: I would like to know more Hispanic Americans.
- Item 14: Hispanic American immigration is making this country a worse place to live.
- Item 15: Some of our best citizens are of Hispanic American descent.
- Item 16: A significant percentage of Hispanic Americans are here illegally.
- Item 17: The Hispanic American heritage is a very important part of our U.S. American identity.

| Coded name | $\begin{aligned} & \text { Item } \\ & 8 \end{aligned}$ | $\begin{aligned} & \text { Item } \\ & 9 \end{aligned}$ | $\begin{aligned} & \text { Item } \\ & 10 \end{aligned}$ | $\begin{aligned} & \text { Item } \\ & 11 \end{aligned}$ | $\begin{aligned} & \text { Item } \\ & 12 \end{aligned}$ | $\begin{aligned} & \text { Item } \\ & 13 \end{aligned}$ | $\begin{aligned} & \text { Item } \\ & 14 \end{aligned}$ | $\begin{aligned} & \text { Item } \\ & 15 \end{aligned}$ | $\begin{aligned} & \text { Item } \\ & 16 \end{aligned}$ | $\begin{aligned} & \text { Item } \\ & 17 \end{aligned}$ | AVG |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| White Mare | 4 | 4 | 5 | 5 | 4 | 4 | 5 | 4 | 4 | 4 | 4.3 |
| Burgundy <br> Hedgehog | 4 | 3 | 4 | 4 | 4 | 4 | 3 | 4 | 3 | 4 | 3.7 |
| Green Kangaroo | 4 | 5 | 4 | 5 | 4 | 4 | 4 | 3 | 4 | 5 | 4.2 |
| Brown Lion | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| Gray Rabbit | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 4 | 4 | 5 | 4.2 |
| Magenta Bear | 5 | 4 | 5 | 5 | 4 | 5 | 4 | 3 | 3 | 4 | 4.2 |
| Brown Hippo | 3 | 4 | 4 | 4 | 4 | 3 | 4 | 4 | 3 | 4 | 3.7 |
| Gray Lion | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 3 | 5 | 4.8 |
| White Goat | 5 | 5 | 4 | 5 | 5 | 5 | 5 | 5 | 4 | 5 | 4.8 |
| Average: | 4.33 | 4.33 | 4.44 | 4.67 | 4.33 | 4.33 | 4.44 | 4.11 | 3.67 | 4.56 | 4.32 |
| St. Dev.: | 0.71 | 0.71 | 0.53 | 0.50 | 0.50 | 0.71 | 0.73 | 0.78 | 0.71 | 0.53 | 0.47 |

Chart 4.7: Quantitative ATH scores from qualitative subjects
Legend for items 8, 10, 13, 15, and 17: 1. Strongly disagree, 2. Disagree, 3. Neutral, 4. Agree, 5. Strongly Agree. Legend for items 9, 11, 12, 14, and 16 (reverse coded): 5. Strongly disagree, 4. Disagree, 3. Neutral, 2. Agree, 1. Strongly Agree

It is worth noting that Item 16 has to do with the legal status of Spanish speakers in the U.S., and its low score reflects the success of political and media campaigns aimed at propagating this misperception. The qualitative data collected from these subjects offers
important insight on these quantitative data. After analyzing the written and video data, it became clear that students' ATS, ATH, and decisions to enroll could be moderated by any combination of 18 specific codes. Some of these codes reveal the factors informing their attitudes, whereas others simply explain which attitudinal-or practical-factors were key in their decisions to enroll. Chart 4.8 presents those codes, the total number of times they appear in the data, and the number of subjects who mentioned them in their testimonies:

| Code | Total \# of times <br> stated | \# of subjects <br> stating it (out <br> of 9 total) |
| :--- | :--- | :--- |
| Spanish-speaking friends have been a factor in the <br> development of a positive ATS | 9 | 6 |
| Spanish-speaking relatives have been a factor in the <br> development of a positive ATS | 6 | 4 |
| Enjoyment in previous Spanish classes promoted a <br> positive ATS | 1 | 1 |
| Fear of the perceived difficulty of the language <br> dissuaded me from enrolling in Spanish sooner | 2 | 2 |
| Travel instilled a love for the language | 6 | 4 |
| Using the language to help native speakers was a <br> source of motivation to learn the language | 6 | 4 |
| A previous instructor positively impacted my ATS | 2 | 2 |
| Love for the language and love for Hispanic <br> Americans go hand in hand | 3 | 9 |
| Expressions of sociopolitical sympathy for Hispanic <br> Americans | 26 |  |


| Many of my non-Hispanic friends and/or relatives <br> dislike Spanish | 6 | 4 |
| :--- | :--- | :--- |
| Learning Spanish can deliver me from cultural <br> isolation | 3 | 3 |
| I enrolled in Spanish because I love the language | 3 | 3 |
| I enrolled in Spanish because the language is useful | 3 | 3 |
| I enrolled in Spanish because there are many <br> Hispanics living here | 5 | 4 |
| I enrolled in Spanish because I want to study abroad | 4 | 3 |
| Spanish was required for my degree | 7 | 5 |
| I enrolled in Spanish even though it was not required <br> for my degree | 4 | 4 |

Chart 4.8: List of ATS, ATH, and decision to enroll emerged codes
These statements help to explain the origins of positive ATS in these subjects. These may stem from the influence of Spanish-speaking friends, relatives who either speak Spanish as their first language or are English-speakers who have instilled love and respect for the language in these subjects, as well as previous instructors, usually from their high school years. Other factors that contributed to instilling love for the language and its speakers were experiences accrued while travelling abroad and random positive interactions with Spanish-speakers in public spaces. Two factors that moderated the subjects' positive ATS were the perceived difficulty of Spanish as a classroom subject and the influence of past ineffectual instructors. Another important element that surfaced while analyzing the data was a direct connection between students' love for Spanish speakers and love for the Spanish language, which was expressed overtly by three of the nine subjects.

As per ATH, it is quite significant that all nine subjects made repeated, multiple expressions of sociopolitical sympathy towards Hispanic immigrants in the U.S. despite a general belief (with two exceptions) that an important number of these
immigrants were undocumented. Four subjects were also very aware of the fact that many in their personal circles did not share a positive view towards the language nor its native speakers-a fact which did not deter, but instead emboldened them to continue studying.

Many expressions of key factors in enrolling in SPAN1010 (and continuing into SPAN1020) were identified. Three students indicated their love for the Spanish language was a key factor in their decision to enroll. Three stated their desire to study abroad was a major reason to make that decision. Four of them expressed that the perception of there being a large Hispanic presence in the country was a decisive factor. Three subjects believed learning Spanish could help them feel less cultural isolation in their rural East Tennessee environments.

Finally, five subjects indicated Spanish counted towards their degree as a requirement, but two of those five stated they were aware of ways to circumvent that requirement and yet chose not to exercise them. It is remarkable that four subjects chose to study Spanish and persisted into the second semester despite the language not being required by their degree plans. Some did this despite the opposition of their academic advisors. It shows the predictive power positive ATS and/or ATH can have on the students' decisions to enroll in a Spanish class at ChSCC.

### 4.2 Classroom emotions and teacher-centered variables

In this section, quantitative and qualitative data were analyzed to find an answer to RQ2: "To what extent are FLE and FLCA within one specific educational context linked to teacher-centered external variables?" The hypothesis, based on the results obtained in Dewaele and Dewaele (2017), Dewaele et al. (2018) or Dewaele et al. (2019b), is that teachers can intently increase FLE, but their behavior will not be as effective in reducing FLCA significantly.

To determine the validity of the hypothesis, multiple sets of data were collected through Likert scale items from a single group of subjects. These subjects were the 58 respondents
from the original experimental group of 70 who completed the first half of the semester. These data intended to measure the following variables:

Two emotional variables:

- Classroom anxiety (FLCA) (Likert scales, 1-5)
- Classroom enjoyment (FLE), divided into private enjoyment (FLEP) (Likert scales, 1-5), and social enjoyment (FLES) (Likert scales, 1-5)

Five teacher-centered variables:

- Is he/she strict? (Likert scales, 1-5)
- Is he/she knowledgeable? (Likert scales, 1-5)
- Do you get along with him/her? (Likert scales, 1-5)
- Is he/she helpful? (Likert scales, 1-5)
- Does he/she use Spanish in the classroom often? (Likert scales, 1-5)

Data from the first two variables were coded and analyzed as 1-5 values obtained from Likert scale sets, with 1 representing the least amount of emotion and 5 representing the maximum amount. Each one of the five teacher-centered variables is the result of individual Likert scale questions.

## Data treatment:

A pilot run was performed on two groups of SPAN1010 students during the summer semester of 2018, with thirty-five students. This pilot run offered consistent results, and the subjects reported no confusion or hesitance towards any of the items in any of the instruments. Next, data were collected from the experimental group. Cronbach's alpha analyses were performed to determine the reliability and internal consistency of the constructs measuring the emotional variables. Positive results were expected, as these instruments have been successfully utilized in several studies since 2014.

The five items measuring FLSE had a Cronbach's alpha coefficient of .547. This figure determined the construct as poor, so it was not sound enough for using in further analyses. After reviewing the variance of all items, item 3 ("My classmates are nice") stood out due to its large variance (1.21). After removing it, the Cronbach's alpha coefficient of the remaining four items was .767 , which is considered acceptable. Henceforth, all further
statistical operations for this construct used only the results obtained from the four items. The five items measuring FLPE had a Cronbach's alpha coefficient of .857. This coefficient falls within the "good" range, and so all the collected results were used without modifications. Finally, there were eight items comprising the FLCA construct, and after running the Cronbach's alpha analysis for the collected data, a coefficient of .907 was obtained, falling within the "excellent" range.

Chart 4.9 contains the average scores and standard deviations collected for FLSE, FLPE, and FLCA:

| Code name | Gender | Age | FLSE | FLPE | FLCA |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Amaranth bear | Male | 15 | 3.25 | 3.2 | 3.25 |
| Amaranth giraffe | Female | 15 | 4 | 4 | 4 |
| Black zebra | Male | 19 | 4 | 3.8 | 3.63 |
| Blue dolphin | Female | 17 | 3.75 | 3.8 | 2.75 |
| Blue rooster | Female | 19 | 4 | 3.4 | 4.75 |
| Brass sheep | Male | 21 | 4 | 3.6 | 2.13 |
| Brown sheep | Female | 26 | 4.25 | 4.4 | 2.75 |
| Burgundy zebra | Female | 15 | 4.75 | 4.4 | 3.88 |
| Burgundy hedgehog | Male | 16 | 4 | 3.4 | 2.25 |
| Burgundy horse | Male | 15 | 4 | 4 | 3.75 |
| Gray tiger | Female | 27 | 4.5 | 4.8 | 3.5 |
| Green hippo | Female | 20 | 3.5 | 3.6 | 3.5 |
| Green kangaroo | Female | 18 | 4.25 | 4.2 | 4.13 |
| Grey pig | Male | 26 | 4.5 | 5 | 1.88 |
| Magenta bear | Female | 15 | 4 | 3.8 | 3.5 |
| White Mare | Female | 18 | 4.5 | 4.4 | 3.25 |
| Amaranth sheep | Female | 18 | 3.75 | 3.4 | 3 |
| Amaranth zebra 1 | Female | 63 | 4 | 4.4 | 3.5 |
| Amaranth zebra 2 | Male | 28 | 3.75 | 3.4 | 2.75 |
| Amber lion | Male | 23 | 4 | 3.8 | 1.25 |
| Amber zebra | Female | 15 | 3.75 | 4 | 4 |
| Auburn tiger | Female | 18 | 3.5 | 2.6 | 3.13 |
| Brass horse | Male | 20 | 4 | 3.8 | 2.25 |
| Brown zebra | Female | 46 | 4.25 | 4.4 | 2.63 |
| Gray hippo | Male | 15 | 3.5 | 3 | 2.75 |
| Gray lion | Male | 20 | 4.25 | 3.8 | 3 |
| Tan giraffe | Female | 20 | 4.5 | 4.4 | 2 |
| White pig | Female | 21 | 4.75 | 4.8 | 4.25 |
| Amaranth pig | Female | 19 | 4.5 | 3.8 | 4.88 |
| Amber hedgehog | Female | 63 | 4.75 | 5 | 3.63 |
| Amber zebra | Female | 19 | 5 | 4.6 | 1.25 |
| Black peacock | Male | 16 | 3.75 | 3.4 | 4.75 |


| Bone zebra | Male | 15 | 4.5 | 4.4 | 2.25 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Bone camel | Male | 16 | 2.5 | 1.8 | 4 |
| Brown lion | Female | 27 | 5 | 4 | 4.38 |
| Burgundy elephant | Female | 19 | 4.5 | 4.8 | 2.88 |
| Cyan hippo | Female | 33 | 3.5 | 2.6 | 4.25 |
| Cyan zebra | Female | 15 | 2.75 | 2.4 | 4.88 |
| Gray lion | Female | 17 | 5 | 4.8 | 2.5 |
| Gray rabbit | Male | 16 | 5 | 4.8 | 3.63 |
| Gray zebra | Female | 19 | 4 | 4 | 3.25 |
| Magenta bear | Female | 21 | 4.5 | 4.2 | 2.88 |
| Pink zebra | Female | 16 | 4.25 | 4.4 | 2.75 |
| Purple pig | Female | 19 | 4.5 | 4.4 | 3.5 |
| Red tiger | Male | 15 | 3.25 | 3.6 | 2.63 |
| Auburn hedgehog | Female | 19 | 5 | 4.8 | 3.88 |
| Beige hippo | Female | 19 | 4.75 | 5 | 3.13 |
| Blue sheep | Female | 18 | 5 | 4.2 | 3.5 |
| Brown camel | Male | 19 | 3.75 | 3.6 | 1.63 |
| Brown hippo | Female | 18 | 5 | 5 | 2.13 |
| Brown rabbit | Female | 17 | 4 | 2.8 | 4.75 |
| Burgundy goat | Female | 18 | 3.75 | 3.6 | 4 |
| Cyan zebra | Female | 15 | 4 | 3.6 | 2.88 |
| Gray lion | Female | 18 | 4.75 | 4.6 | 3 |
| Green giraffe | Female | 22 | 4.25 | 2.2 | 2 |
| Red peacock | Male | 18 | 4.5 | 4 | 4.63 |
| Tan bear | Male | 19 | 5 | 5 | 1.13 |
| White goat | Female | 19 | 4.75 | 4.4 | 3.75 |
|  |  | Average: | 4.18 | 3.95 | 3.21 |
|  |  | St. Dev.: | 0.56 | 0.74 | 0.94 |

Chart 4.9: Average scores and standard deviation for FLSE, FLPE, and FLCA
Before measuring the relationship between emotional values (FLCA, FLPE, FLSE) and the teacher-centered ones, Pearson's and Spearman's Rho correlation tests were run to examine the relations between the three emotional values.

The first relationship explored was with FLPE and FLSE, which, as expected, were closely correlated. Upon running the Pearson's correlation test, the $r$ coefficient was .8137-a large positive association. Below are the specific calculations used to obtain this coefficient:

## Result details

$R$ Calculation

$$
\mathrm{r}=\sum((\mathrm{X}-\mathrm{My})(\mathrm{Y}-\mathrm{Mx})) / \sqrt{ }((\mathrm{SSx})(\mathrm{SSy}))
$$

$r=19.679 / \sqrt{ }((31.663)(18.474))=.8137$
Meta numerics (cross-check)
$\mathbf{r}=. \mathbf{8 1 3 7}$
The p -value was $<.001$. The result is significant at $\mathrm{p}<.05$.

Since Likert scales are generally non-parametric, a Spearman Rho correlation coefficient was calculated to further validate the results obtained from the Pearson's correlation test. The results were $\mathrm{r}_{\mathrm{s}}=\mathbf{8 3 2}, \mathrm{p}=<.001$, so the large correlation between the two aspects of FLE is confirmed as significant.

The second relationship to be explored was FLSE and FLCA. The $r$-value obtained after running Pearson's correlation test was -.1833, a small negative correlation. However, this result was not statistically significant $(\mathrm{p}=.169)$

## Result details

R Calculation
$\mathrm{r}=\Sigma((\mathrm{X}-\mathrm{My})(\mathrm{Y}-\mathrm{Mx})) / \sqrt{ }((\mathrm{SSx})(\mathrm{SSy}))$
$r=-5.633 / \sqrt{ }((18.474)(51.137))=-.1833$
Meta numerics (cross-check)
$r=-.1833$
The p -value was .169 . The result is not significant at $\mathrm{p}<.05$.
This relationship was further explored through a Spearman Rho's correlation calculation, resulting in $\mathrm{r}_{\mathrm{s}}=\mathbf{- . 1 1 3}, \mathrm{p}=.3966$, confirming the association between the two variables is not statistically significant.

Finally, FLPE and FLCA were also compared. After running a Pearson's correlation test, the value of $r$ was -.239 , which is a small negative association. The details of this calculation:

## Results details

## $R$ Calculation

$r=\sum((X-M y)(Y-M x)) / \sqrt{ }((S S x)(S S y))$
$r=-9.606 / \sqrt{ }((31.663)(51.137))=-.2387$

## Meta numerics (cross-check)

$$
r=-.2387
$$

The p-value was .072 . The result is not significant by a small margin, as the threshold for significant is $\mathrm{p}<.05$.

The Spearman's Rho calculation further highlights the lack of statistical significance for this relationship. The results were $\mathrm{r}_{\mathrm{s}}=\mathbf{- . 1 9 1}, \mathrm{p}=.1519$.

Despite FLE showing a small negative association with FLCA, this association is not statistically significant, for a small margin in the case of FLPE. These results imply FLPE and FLSE are strongly related, whereas FLCA seems to be an entirely independent emotional dimension. This implies some subjects may show high or low levels of both FLE and FLCA.

Once the relationship between emotional variables was explored, Chi-square and Fisher's exact tests were run to compare these emotional outcomes with each one of the teachercentered variables. These are the collected responses for teacher-centered variables:

| Code name | Gender | Age | Strictness | Friendliness | Spanish <br> usage | Caring |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | Helpfulness


| Green hippo | Female | 20 | 4 | 4 | 5 | 4 | 4 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Green kangaroo | Female | 18 | 4 | 5 | 4 | 3 | 5 |
| Grey pig | Male | 26 | 4 | 5 | 5 | 3 | 5 |
| Magenta bear | Female | 15 | 4 | 4 | 5 | 4 | 4 |
| White Mare | Female | 18 | 4 | 4 | 4 | 4 | 4 |
| Amaranth sheep | Female | 18 | 2 | 4 | 4 | 4 | 4 |
| Amaranth zebra 1 | Female | 63 | 3 | 5 | 4 | 4 | 5 |
| Amaranth zebra 2 | Male | 28 | 4 | 4 | 5 | 4 | 4 |
| Amber lion | Male | 23 | 5 | 4 | 4 | 4 | 4 |
| Amber zebra | Female | 15 | 2 | 3 | 4 | 4 | 4 |
| Auburn tiger | Female | 18 | 4 | 5 | 4 | 3 | 4 |
| Brass horse | Male | 20 | 2 | 5 | 3 | 4 | 5 |
| Brown zebra | Female | 46 | 4 | 5 | 4 | 4 | 5 |
| Gray hippo | Male | 15 | 2 | 5 | 4 | 4 | 4 |
| Gray lion | Male | 20 | 5 | 5 | 5 | 5 | 5 |
| Tan giraffe | Female | 20 | 3 | 5 | 5 | 5 | 5 |
| White pig | Female | 21 | 2 | 5 | 5 | 5 | 5 |
| Amaranth pig | Female | 19 | 5 | 5 | 5 | 4 | 5 |
| Amber hedgehog | Female | 63 | 2 | 5 | 4 | 5 | 5 |
| Amber zebra | Female | 19 | 5 | 5 | 5 | 5 | 5 |
| Black peacock | Male | 16 | 5 | 5 | 5 | 4 | 4 |
| Bone zebra | Male | 15 | 5 | 4 | 4 | 4 | 5 |
| Bone camel | Male | 16 | 4 | 4 | 4 | 3 | 4 |
| Brown lion | Female | 27 | 4 | 5 | 5 | 5 | 5 |
| Burgundy elephant | Female | 19 | 5 | 5 | 4 | 5 | 5 |
| Cyan hippo | Female | 33 | 4 | 5 | 4 | 5 | 5 |
| Cyan zebra | Female | 15 | 4 | 4 | 5 | 3 | 4 |
| Gray lion | Female | 17 | 4 | 5 | 3 | 5 | 5 |
| Gray rabbit | Male | 16 | 2 | 5 | 5 | 5 | 5 |
| Gray zebra | Female | 19 | 4 | 4 | 5 | 4 | 4 |
| Magenta bear | Female | 21 | 4 | 5 | 5 | 5 | 5 |
| Pink zebra | Female | 16 | 2 | 5 | 4 | 4 | 4 |
| Purple pig | Female | 19 | 4 | 5 | 5 | 5 | 5 |
| Red tiger | Male | 15 | 4 | 5 | 4 | 4 | 4 |
| Auburn hedgehog | Female | 19 | 4 | 5 | 5 | 5 | 5 |
| Beige hippo | Female | 19 | 5 | 5 | 5 | 4 | 5 |
| Blue sheep | Female | 18 | 5 | 5 | 5 | 4 | 5 |
| Brown camel | Male | 19 | 5 | 5 | 4 | 4 | 4 |
| Brown hippo | Female | 18 | 4 | 5 | 5 | 5 | 5 |
| Brown rabbit | Female | 17 | 5 | 4 | 4 | 2 | 4 |
| Burgundy goat | Female | 18 | 4 | 4 | 4 | 4 | 4 |
| Cyan zebra | Female | 15 | 4 | 4 | 4 | 4 | 4 |
| Gray lion | Female | 18 | 5 | 5 | 4 | 5 | 5 |
| Green giraffe | Female | 22 | 4 | 5 | 4 | 3 | 5 |
| Red peacock | Male | 18 | 5 | 5 | 5 | 3 | 5 |


| Tan bear | Male | 19 | 4 | 5 | 5 | 5 | 5 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| White goat | Female | 19 | 5 | 5 | 5 | 4 | 5 |
|  |  | Average: | $\mathbf{3 . 8 8}$ | $\mathbf{4 . 7 1}$ | $\mathbf{4 . 5}$ | $\mathbf{4 . 2 4}$ | $\mathbf{4 . 6}$ |
|  | St. Dev: | $\mathbf{1 . 0 0}$ | $\mathbf{0 . 4 9}$ | $\mathbf{0 . 5 9}$ | $\mathbf{0 . 7 3}$ | $\mathbf{0 . 4 9}$ |  |
|  |  |  |  |  |  |  |  |
| Chart 4.10: Scores for teacher-centered variables |  |  |  |  |  |  |  |

The first teacher-centered variable was students' perceptions of instructor's strictness. Subjects were divided in two groups: those who perceived their instructor as stricter (answers of "Agree" and "Strongly Agree" to that question), and those who perceived their instructor as less strict (answers of "Disagree"). Subjects within these two groups were further divided by reporting high or low classroom emotions. Subjects who reported scores of 4 to 5 in each emotion were included in the "high" group. Subjects reporting scores under 3 were included in the "low" one. Subjects with scores between 3 and 3.99 were equally divided between both groups. Chi-square and Fisher's exact tests were run on the resulting figures, which can be found in charts 4.11-4.13:

|  | Teacher is stricter (45) | Teacher is less strict (13) |
| :--- | :--- | :--- |
| High FLSE (43) | 35 | 8 |
| Low FLSE (15) | 10 | 5 |
| Chi-square | $\mathbf{X}^{\mathbf{2}}=\mathbf{1 . 3 8 7 3}$ | $\mathbf{p = . 2 3 8 8}$ |
| Fisher's exact | $\mathbf{p = . 2 8 8 2}$ |  |

Chart 4.11: Chi-square \& Fisher's exact test results for FLSE vs Teacher strictness
Based on these figures, the results are not significant at $\mathrm{p}<.05$.

|  | Teacher is stricter (45) | Teacher is less strict (13) |
| :--- | :--- | :--- |
| High FLPE (43) | 32 | 11 |
| Low FLPE (15) | 13 | 2 |
| Chi-square | $\mathbf{X}^{\mathbf{2}}=\mathbf{1 . 2 4 8 8}$ | $\mathbf{p = . 2 6 3 8}$ |
| Fisher's exact | $\mathbf{p = . \mathbf { 3 1 8 3 }}$ |  |

Chart 4.12: Chi-square \& Fisher's exact test results for FLPE vs Teacher strictness
The results are not significant at $\mathrm{p}<.05$.

|  | Teacher is stricter (45) | Teacher is less strict (13) |
| :--- | :--- | :--- |
| High FLCA (25) | 19 | 6 |
| Low FLCA (33) | 26 | 7 |
| Chi-square | $\mathbf{X}^{\mathbf{2}=\mathbf{0 . 0 6 3 6}}$ | $\mathbf{p = . 8 0 0 9}$ |
| Fisher's exact | $\mathbf{p = 1}$ |  |

Chart 4.13: Chi-Square \& Fisher's exact test results for FLCA vs Teacher strictness
The results are not significant at $\mathrm{p}<.05$.

Escuela

None of the three pairs of tests discovered a significant relation between the emotional variables and instructor's strictness. Pearson's and Spearman's Rho correlation tests were run to further explore the relationships between these variables. The results are:

## FLSE and instructor strictness

## Result details \& calculations

R Calculation
$\mathrm{r}=\Sigma((\mathrm{X}-\mathrm{My})(\mathrm{Y}-\mathrm{Mx})) / \sqrt{ }((\mathrm{SSx})(\mathrm{SSy}))$
$\mathrm{r}=3.517 / \sqrt{ }((58.155)(18.474))=.1073$
Meta numerics (cross-check)
$r=.1073$

The p -value is < .4240. The result is not significant at $\mathrm{p}<.05$.
$r$ is .1073, a low positive correlation.
A Spearman's Rho test was run. The results were $\mathrm{r}_{\mathrm{s}}=.1802, \mathrm{p}=.1758$, confirming there is a weak positive correlation, but it is not statistically significant.

## FLPE and instructor strictness

Result details \& calculations
$R$ Calculation
$r=\sum((X-M y)(Y-M x)) / \sqrt{ }((S S x)(S S y))$
$r=-3.386 / \sqrt{ }((58.155)(31.663))=-.0789$
Meta numerics (cross-check)
$r=-.0789$
The p -value is $<.5605$. The result is not significant at $\mathrm{p}<.05$.
$r$ is -.0789 , there is no correlation between the variables.

A Spearman's Rho calculation was conducted to further explore the relationship between the variables. The results were $\mathrm{r}_{\mathrm{s}}=-.0492, \mathrm{p}=.7138$, confirming there is no significant relationship between the variables.

## FLCA and instructor strictness

## Result details \& calculations

## $R$ Calculation

$\mathrm{r}=\sum((\mathrm{X}-\mathrm{My})(\mathrm{Y}-\mathrm{Mx})) / \sqrt{ }((\mathrm{SSx})(\mathrm{SSy}))$
$r=-2.037 / \sqrt{ }((58.155)(51.137))=-.0373$

## Meta numerics (cross-check)

$$
r=-.0373
$$

The p -value is < .7827. The result is not significant at $\mathrm{p}<.05$.
$r$ is -.0373 , there is no correlation between the variables.

A Spearman's Rho calculation was also conducted. The results were $r_{s}=-.0206, p=$ .8776, confirming there is no correlation between the two variables.

These statistical analyses further indicate there is no significant association between an instructor's perceived strictness and the classroom emotions measured in the experiment.

The second teacher-centered variable was instructor friendliness. Since the most frequent answers in the Likert scale item were "Strongly Agree" and "Agree", subjects were divided into those who picked "Strongly Agree", and those who chose "Agree." One subject chose "Neutral" and was included in the latter group. Same as before, subjects were further divided according to whether they reported high or low classroom emotions. The results of these tests can be found in charts 4.14-4.16:

|  | Teacher is more friendly (42) | Teacher is less friendly (16) |
| :--- | :--- | :--- |
| High FLSE (43) | 35 | 8 |
| Low FLSE (15) | 7 | 8 |
| Chi-square | $\mathbf{X}^{\mathbf{2}}=\mathbf{6 . 7 1 4 2}$ | $\mathbf{p = . 0 0 9 5}$ |
| Fisher's exact | $\mathbf{p = . 0 1 7 2}$ |  |

The results are significant at $\mathrm{p}<.05$.

|  | Teacher is more friendly (42) | Teacher is less friendly (16) |
| :--- | :--- | :--- |
| High FLPE (43) | 34 | 9 |
| Low FLPE (15) | 8 | 7 |
| Chi-square | $\mathbf{X}^{\mathbf{2}}=\mathbf{3 . 6 8 7 4}$ | $\mathbf{p = . 0 5 4 8}$ |
| Fisher's exact | $\mathbf{p = . 0 9 1 1}$ |  |

Chart 4.15: Chi-square \& Fisher's exact test results for FLPE vs Teacher friendliness
The results are not significant by a small margin at $\mathrm{p}<.05$.

|  | Teacher is more friendly (42) | Teacher is less friendly (16) |
| :--- | :--- | :--- |
| High FLCA (25) | 20 | 5 |
| Low FLCA (33) | 22 | 9 |
| Chi-square | $\mathbf{X}^{\mathbf{2}=\mathbf{0 . 6 0 2 2}}$ | $\mathbf{p = . 4 3 7 7}$ |
| Fisher's exact | $\mathbf{p = . 5 4 1 6}$ |  |

Chart 4.16: Chi-square \& Fisher's exact test results for FLCA vs Teacher friendliness
The results are not significant at $\mathrm{p}<.05$.
The Chi-square tests discovered a significant relation between FLSE and teacher friendliness. FLPE is also related to this variable, but this relationship is right above the minimal significance level of $\mathrm{p}<.05$. This teacher characteristic did not seem to correlate with FLCA.

Pearson's and Spearman Rho's correlations were calculated to further explore the relationships between these variables. The results can be found below:

## FLSE and instructor's friendliness

Result details \& calculations
R Calculation
$\mathrm{r}=\Sigma((\mathrm{X}-\mathrm{My})(\mathrm{Y}-\mathrm{Mx})) / \sqrt{ }((\mathrm{SSx})(\mathrm{SSy}))$
$\mathrm{r}=7.578 / \sqrt{ }((14.017)(18.474))=.4709$

## Meta numerics (cross-check)

$r=.4709$

The p -value is < .001 . The result is significant at $\mathrm{p}<.05$.
$r$ is .4709 , a medium positive correlation.

A Spearman's Rho calculation was also conducted. The results were $\mathrm{r}_{\mathrm{s}}=.4764, \mathrm{p}=<.001$, confirming there is a statistically significant medium positive correlation.

## FLPE and instructor's friendliness

Result details \& calculations
$R$ Calculation
$\mathrm{r}=\Sigma((\mathrm{X}-\mathrm{My})(\mathrm{Y}-\mathrm{Mx})) / \sqrt{ }((\mathrm{SSx})(\mathrm{SSy}))$
$\mathrm{r}=7.062 / \sqrt{ }((14.017)(31.663))=.3352$
Meta numerics (cross-check)
$\mathrm{r}=. \mathbf{3 3 5 2}$
The p -value is $<.0101$. The result is significant at $\mathrm{p}<.05$.
$r$ is 0.3352 , a low positive correlation.
The Spearman's Rho calculation results were $\mathrm{r}_{\mathrm{s}}=.3830, \mathrm{p}=.003$, confirming there is a statistically significant medium positive correlation.

## FLCA and instructor's friendliness

Result details \& calculations
$R$ Calculation
$\mathrm{r}=\sum((\mathrm{X}-\mathrm{My})(\mathrm{Y}-\mathrm{Mx})) / \sqrt{ }((\mathrm{SSx})(\mathrm{SSy}))$
$\mathrm{r}=-2.821 / \sqrt{ }((14.017)(51.137))=-.1054$
Meta numerics (cross-check)
$r=-.1054$
The p -value is $<.4328$. The result is not significant at $\mathrm{p}<.05$.
$r$ is -.1054 , a very low negative correlation.
A Spearman's Rho test was also conducted. The results were $\mathrm{r}_{\mathrm{s}}=-.091, \mathrm{p}=.4966$, indicating there is no correlation between the variables.

These tests confirmed the positive association between FLE and instructor friendliness, with FLSE having a stronger association. On the other hand, FLCA shows a low negative association with instructor friendliness, but the results are not statistically significant.

The third teacher-centered variable was the amount of Spanish language usage by the instructor in class. The most frequent answers in the Likert scale item were "very frequently" and "frequently", so subjects were divided again according to those who picked "very frequently", and those who chose "frequently" or less (only three subjects indicated a lesser frequency). Consistent with previous analyses, subjects were divided according to whether they reported high or low classroom emotions. The results of these tests can be found in charts 4.17-4.19:

|  | Teacher uses more <br> Spanish (32) | Teacher uses less Spanish (26) |
| :--- | :--- | :--- |
| High FLSE (43) | 27 | 16 |
| Low FLSE (15) | 5 | 10 |
| Chi-square | $\mathbf{X}^{\mathbf{2}}=\mathbf{3 . 9 0 1 7}$ | $\mathbf{p = . 0 4 8 2}$ |
| Fisher's exact | $\mathbf{p = . 0 7 1}$ |  |

Chart 4.17: Chi-square \& Fisher's exact test results for FLSE vs Teacher use of Spanish

The results are significant at $\mathrm{p}<.05$ based on the Chi-square test, but not so according to the Fisher's exact test.

|  | Teacher uses more Spanish (32) | Teacher uses less Spanish (26) |
| :--- | :--- | :--- |
| High FLPE (43) | 27 | 16 |
| Low FLPE (15) | 5 | 10 |
| Chi-square | $\mathbf{X}^{\mathbf{2}}=\mathbf{3 . 9 0 1 7}$ | $\mathbf{p = . 0 4 8 2}$ |
| Fisher's exact | $\mathbf{p = . 0 7 1}$ |  |

Chart 4.18: Chi-square \& Fisher's exact test results for FLPE vs Teacher use of Spanish
The results are significant at $\mathrm{p}<.05$ according to the Chi-square test, but not so according to the Fisher's exact test.

|  | Teacher uses more Spanish (32) | Teacher uses less Spanish (26) |
| :--- | :--- | :--- |
| High FLCA (25) | 17 | 8 |
| Low FLCA (33) | 15 | 18 |
| Chi-square | $\mathbf{X}^{\mathbf{2}}=\mathbf{2 . 9 2 3 3}$ | $\mathbf{p = . 0 8 7 3}$ |
| Fisher's exact | $\mathbf{p = . . 1 3 3}$ |  |

Chart 4.19: Chi-square \& Fisher's exact test results for FLCA vs Teacher use of Spanish
The results are not significant at $\mathrm{p}<.05$.
The Chi-square tests unveil a positive association between FLE and the reported frequency of Spanish usage in the classroom with mixed results regarding statistical
significance. This usage appeared to be moderately linked to FLCA, but the results for this variable were not statistically significant by a small margin.

Pearson's and Spearman's Rho correlation tests were run to further explore the relationship between these variables. The results are reproduced below:

## FLSE and frequency of instructor's usage of Spanish

## $\underline{\text { Result details \& calculations }}$

## $R$ Calculation

$\mathrm{r}=\sum((\mathrm{X}-\mathrm{My})(\mathrm{Y}-\mathrm{Mx})) / \sqrt{ }((\mathrm{SSx})(\mathrm{SSy}))$
$\mathrm{r}=5.25 / \sqrt{ }((20.5)(18.474))=.2698$
Meta numerics (cross-check)
$r=.2698$
The p -value is $<.0404$. The result is significant at $\mathrm{p}<.05$.
$r$ is 0.2698 , a low positive correlation.
A Spearman's Rho calculation was also conducted. The results were $\mathrm{r}_{\mathrm{s}}=.3305, \mathrm{p}=.0112$, confirming there is a statistically significant low positive correlation.

## FLPE and frequency of instructor's usage of Spanish

Result details \& calculations
$R$ Calculation
$r=\sum((X-M y)(Y-M x)) / \sqrt{ }((S S x)(S S y))$
$\mathrm{r}=5.6 / \sqrt{ }((20.5)(31.663))=.2198$
Meta numerics (cross-check)
$\mathrm{r}=. \mathbf{2 1 9 8}$
The p -value is $<.0970$. The result is not significant at $\mathrm{p}<.05$.
$r$ is .2198 , a low positive correlation.
A Spearman's Rho test was also run, obtaining the following results: $\mathrm{r}_{\mathrm{s}}=.2374, \mathrm{p}=.0727$, confirming there is a low positive correlation, but this is not statistically significant for a small margin.

## FLCA and frequency of instructor's usage of Spanish

Result details \& calculations
$R$ Calculation
$\mathrm{r}=\sum((\mathrm{X}-\mathrm{My})(\mathrm{Y}-\mathrm{Mx})) / \sqrt{ }((\mathrm{SSx})(\mathrm{SSy}))$
$\mathrm{r}=5.188 / \sqrt{ }((20.5)(51.137))=.1602$

## Meta numerics (cross-check)

$\mathrm{r}=. \mathbf{1 6 0 2}$
The p -value is < .2296. The result is not significant at $\mathrm{p}<.05$. $r$ is .1602 , a low positive correlation.

A Spearman's Rho calculation resulted in $\mathrm{r}_{\mathrm{s}}=.1719, \mathrm{p}=0.197$, confirming there is a low positive correlation but not statistically significant.

All emotional variables have low positive correlations with the frequency of instructor's usage of Spanish. However, FLSE is the only one that can be considered statistically significant, even if by just a small amount. This is the first teacher-centered variable showing a positive association with FLCA, albeit not statistically significant.

The fourth teacher-centered variable was the degree to which subjects declared their Spanish instructor cared about them. There was a large frequency of "Strongly Agree" answers- $40 \%$ of the total. To run Chi-square and Fisher's exact tests on the collected results, subjects were divided again into those who picked "Strongly Agree," and those who chose "Agree" or less. They were then divided by reporting high or low classroom emotions. Here are the results of these tests:

|  | Teacher cares more (23) | Teacher cares less (35) |
| :--- | :--- | :--- |
| High FLSE (43) | 21 | 22 |
| Low FLSE (15) | 2 | 13 |
| Chi-square | $\mathbf{X}^{\mathbf{2}}=\mathbf{5 . 8 5 7 9}$ | $\mathbf{p = . 0 1 5 5}$ |
| Fisher's exact | $\mathbf{p = . 0 2 9 6}$ |  |

Chart 4.20: Chi-square \& Fisher's exact test results for FLSE vs Teacher care
The results are significant at $\mathrm{p}<.05$, but the fact that there are less than five subjects in one of the categories invalidates these tests results.

|  | Teacher cares more (23) | Teacher cares less (35) |
| :--- | :--- | :--- |
| High FLPE (43) | 22 | 21 |
| Low FLPE (15) | 3 | 12 |
| Chi-square | $\mathbf{X}^{\mathbf{2}}=\mathbf{4 . 4 0 3 6}$ | $\mathbf{p = . 0 3 5 8}$ |
| Fisher's exact | $\mathbf{p = . 0 6 7 2}$ |  |

Chart 4.21: Chi-square \& Fisher's exact test results for FLPE vs Teacher care
The results are not significant at $\mathrm{p}<.05$. The fact there are less than five subjects in one of the categories invalidates these tests results.

|  | Teacher cares more (23) | Teacher cares less (35) |
| :--- | :--- | :--- |
| High FLCA (25) | 13 | 12 |
| Low FLCA (33) | 10 | 23 |
| Chi-square | $\mathbf{X}^{\mathbf{2}}=\mathbf{2 . 7 9 8 2}$ | $\mathbf{p}=\mathbf{. 0 9 4 3}$ |
| Fisher's exact | $\mathbf{p = . 1 1 1 6}$ |  |

Chart 4.22: Chi-square \& Fisher's exact test results for FLCA vs Teacher care
The results are not significant at $\mathrm{p}<.05$.

These results show a significant association between whether the subject perceived their instructor as caring and both types of FLE. However, the validity of the Chi-square analyses for FLE is compromised by the fact one of the figures has a count below five subjects. There is no significant relationship between a caring instructor and FLCA.

Below are the results for Pearson's and Spearman's Rho correlation tests run to further explore the relationship between these variables:

## FLSE and a caring instructor

## Result details \& calculations

$R$ Calculation
$\mathrm{r}=\sum((\mathrm{X}-\mathrm{My})(\mathrm{Y}-\mathrm{Mx})) / \sqrt{ }((\mathrm{SSx})(\mathrm{SSy}))$
$r=11.216 / \sqrt{ }((30.621)(18.474))=.4716$

## Meta numerics (cross-check)

$r=.4716$

The p -value is < .001 . The result is significant at $\mathrm{p}<.05$.
$r$ is .4716 , a medium positive correlation.

A Spearman's Rho calculation was also conducted. The results were $\mathrm{r}_{\mathrm{s}}=.469, \mathrm{p}=<.001$, confirming there is a statistically significant medium positive correlation.

## FLPE and a caring instructor

Result details \& calculations
$R$ Calculation
$\mathrm{r}=\sum((\mathrm{X}-\mathrm{My})(\mathrm{Y}-\mathrm{Mx})) / \sqrt{ }((\mathrm{SSx})(\mathrm{SSy}))$
$\mathrm{r}=16.772 / \sqrt{ }((30.621)(31.663))=.5387$
Meta numerics (cross-check)
$\mathrm{r}=.5387$

The p -value is < .001 . The result is significant at $\mathrm{p}<.05$.
$r$ is .5387 , a medium positive correlation.
A Spearman's Rho calculation resulted in $\mathrm{r}_{\mathrm{s}}=.4931, \mathrm{p}=<.001$ confirming there is a statistically significant medium positive correlation.

## FLCA and a caring instructor

Result details \& calculations
R Calculation
$r=\sum((X-M y)(Y-M x)) / \sqrt{ }((S S x)(S S y))$
$r=-4.552 / \sqrt{ }((30.621)(51.137))=-.115$
Meta numerics (cross-check)
$r=\mathbf{- . 1 1 5}$

The p -value is $<.39$. The result is not significant at $\mathrm{p}<.05$.
$r$ is -.115, a low negative correlation.

A Spearman's Rho test was also conducted, confirming the Pearson's tests results. The values obtained were $\mathrm{r}_{\mathrm{s}}=-.0229, \mathrm{p}=.8643$.

FLSE and FLPE have a medium positive relationship with a caring Spanish instructor among this study's subjects. Among all the teacher-centered variables reviewed so far, this one has the most significant impact on FLE, and it is particularly relevant for FLPE. It also shows a small negative correlation with FLCA, but it is not statistically significant.

The last teacher-centered variable was the degree to which Spanish instructors were perceived as helpful. All subject responses were either "Strongly Agree" or "Agree". In order to run Chi-square and Fisher's exact tests on the collected results, subjects were separated according to those who replied the former and those who picked the latter, and then divided again between those reporting high or low classroom emotions. Here are the results of the Chi-square and Fisher's exact tests between FLSE, FLPE, and FLCA, respectively, and instructor helpfulness:

|  | Teacher is more helpful (35) | Teacher is less helpful (23) |
| :--- | :--- | :--- |
| High FLSE (43) | 33 | 10 |
| Low FLSE (15) | 2 | 13 |
| Chi-square | $\mathbf{X}^{\mathbf{2}}=\mathbf{1 8 . 6 8 6 1}$ | $\mathbf{p}<\mathbf{. 0 0 1}$ |
| Fisher's exact | $\mathbf{p}<\mathbf{0 0 1}$ |  |

Chart 4.23: Chi-square \& Fisher's exact test results for FLSE vs teacher helpfulness
The results are significant at $\mathrm{p}<.05$. However, they cannot be utilized since one of the fields has less than five subjects.

|  | Teacher is more helpful (35) | Teacher is less helpful (23) |
| :--- | :--- | :--- |
| High FLPE (43) | 32 | 11 |
| Low FLPE (15) | 3 | 12 |
| Chi-square | $\mathbf{X}^{\mathbf{2}=\mathbf{1 3 . 7 6 2 2}}$ | $\mathbf{p}<\mathbf{0 0 1}$ |
| Fisher's exact | $\mathbf{p}<\mathbf{. 0 0 1}$ |  |

Chart 4.24: Chi-square \& Fisher's exact test results for FLPE vs teacher helpfulness
The results are significant at $\mathrm{p}<.05$. However, they cannot be utilized since one of the fields has less than five subjects.

|  | Teacher is more helpful (35) | Teacher is less helpful (23) |
| :--- | :--- | :--- |
| High FLCA (25) | 19 | 6 |
| Low FLCA (33) | 16 | 17 |
| Chi-square | $\mathbf{X}^{\mathbf{2}}=\mathbf{4 . 5 0 0 2}$ | $\mathbf{p = . 0 3 3 9}$ |
| Fisher's exact | $\mathbf{p = . 0 5 7}$ |  |

Chart 4.25: Chi-square \& Fisher's exact test results for FLCA vs Teacher helpfulness
The results are significant at $\mathrm{p}<.05$.
The results for FLE have limited validity because there is at least one field with less than five subjects. Despite this, along with a caring instructor, instructor helpfulness is associated the most closely with both types of FLE. This variable seems to affect FLCA, which is a departure from typical results in previous research. Here are the results of the Pearson's correlation tests for this set of variables, very useful to clarify these relationships:

## FLSE and a helpful instructor

## Result details \& calculations

R Calculation
$\mathrm{r}=\sum((\mathrm{X}-\mathrm{My})(\mathrm{Y}-\mathrm{Mx})) / \sqrt{ }((\mathrm{SSx})(\mathrm{SSy}))$
$\mathrm{r}=10.914 / \sqrt{ }((13.879)(18.474))=.6816$

## Meta numerics (cross-check)

$r=.6816$

The p -value is $<.001$. The result is significant at $\mathrm{p}<.05$.
A Spearman's Rho test was also run. The results were $\mathrm{r}_{\mathrm{s}}=.7077, \mathrm{p}=<.001$, a statistically significant large positive correlation.

## FLPE and a helpful instructor

## Result details \& calculations

R Calculation
$\mathrm{r}=\sum((\mathrm{X}-\mathrm{My})(\mathrm{Y}-\mathrm{Mx})) / \sqrt{ }((\mathrm{SSx})(\mathrm{SSy}))$
$r=11.531 / \sqrt{ }((13.879)(31.663))=.5501$
Meta numerics (cross-check)
$r=.5501$

The p -value is $<.001$. The result is significant at $\mathrm{p}<.05$.
A Spearman's Rho calculation resulted in $\mathrm{r}_{\mathrm{s}}=.6192, \mathrm{p}=<.001$, which corresponds with a statistically significant medium positive correlation.

## FLCA and a helpful instructor

## Result details \& calculations

## R Calculation

$\mathrm{r}=\Sigma((\mathrm{X}-\mathrm{My})(\mathrm{Y}-\mathrm{Mx})) / \sqrt{ }((\mathrm{SSx})(\mathrm{SSy}))$
$\mathrm{r}=0.683 / \sqrt{ }((13.879)(51.137))=.0256$
Meta numerics (cross-check)
$r=.0256$

The p -value is $<.8487$. The result is not significant at $\mathrm{p}<.05$.
A Spearman's Rho correlation test was also performed, confirming there is no correlation between the two variables. The results were $r_{s}=.0537, p=.6885$. These results contradict the relationship between FLCA and caring instructors indicated by the Chi-square test.

Overall, these statistical results indicate helpfulness is the teacher-centered variable with the strongest association with FLE-both private and social. It also confirms no teachercentered variable has a statistically significant impact on FLCA across all analyses.

Qualitative data collected from interviews helped clarify the patterns of FLCA and FLE experienced in the classroom, as well as the ways in which instructors and peers had an impact on it. However, since the subjects who were interviewed persisted and enrolled in SPAN 1020, the present study lacks insight on how these variables would be described by subjects who either could not continue or decided not to.

The data were collected in the spring 2019 semester, between March and April. Subject responses were analyzed to try to find insight on the factors that influenced the two classroom emotions which were the objects of study in the current dissertation-FLE and FLCA. Special attention was paid to the influence instructors seemed to have on these emotions. The final goal was finding further clarification for how these emotions were experienced, and what impact they have on the subjects.

The average quantitative scores for this selected group are 4.64 for their FLSE, 4.33 for their FLPE, and 3.26 for their FLCA. The first average set this group significantly above the average for all subjects, which is 4.18 for this indicator. Similarly, their 4.33 average responses for FLPE are distinctly superior to the 3.95 for the complete treatment group. However, their FLCA average is close to the group average of 3.21. These nine subjects are all among those who persisted (whereas $35 \%$ of respondents in the complete sample from which emotional data was collected did not). Students who persist and are willing to further participate in the study have significantly higher patterns of FLE. However, their FLCA does not seem to be much different. The standard deviations for each indicator are $0.33,0.44$, and 0.74 . This is inferior to the standard deviations of all respondents $(\mathrm{n}=58)$ of $0.74,0.56$ and 0.94 , respectively.

Perceptions of their instructors were also collected from their responses to the qualitative portion of the study. These provide insight into how perceptions interacted with the classroom emotions described above. In their quantitative responses, subjects rated their instructors' strictness, friendliness, frequency of Spanish usage, kindness, and helpfulness with average results of $4.11,4.89,4.67,4.44$, and 4.78 , respectively. Their standard deviations are 0.87 (due to one outlier), $0.31,0.47,0.68$, and 0.42 . Their scores are not too far from the complete quantitative sample averages of $3.88,4.71,4.50,4.24$, and 4.60 (standard deviations of $1.00,0.49,0.59,0.73$, and 0.49 .)

Below is chart 4.26 with the answers these nine subjects provided for each of the four items used in the quantitative portion of the study to characterize their FLSE:

- Item 39: My Spanish class is a positive environment.
- Item 41: It is fun to be in Spanish class.
- Item 43: There is a good atmosphere in class.
- Item 44: We laugh a lot in Spanish class.

| Coded name | Item 39 | Item 41 | Item 43 | Item 44 | $A V G$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| White Mare | 4 | 5 | 4 | 5 | 4.5 |
| Burgundy Hedgehog | 4 | 4 | 4 | 4 | 4 |
| Green Kangaroo | 4 | 4 | 5 | 4 | 4.25 |
| Brown Lion | 5 | 5 | 5 | 5 | 5 |
| Gray Rabbit | 5 | 5 | 5 | 5 | 5 |
| Magenta Bear | 5 | 4 | 5 | 4 | 4.5 |
| Brown Hippo | 5 | 5 | 5 | 5 | 5 |
| Gray Lion | 5 | 5 | 5 | 4 | 4.75 |
| White Goat | 5 | 5 | 4 | 5 | 4.75 |
| Average: | 4.67 | 4.67 | 4.67 | 4.56 | 4.64 |
| St. Dev.: | 0.47 | 0.47 | 0.47 | 0.49 | 0.33 |

Chart 4.26: FLSE quantitative responses from subjects participating in the qualitative portion of the study
Legend for all items: 1. Strongly disagree, 2. Disagree, 3. Neutral, 4. Agree, 5. Strongly Agree.

All questions received similar scores, demonstrating a remarkable agreement across the board regarding the level of social enjoyment these subjects experienced in their SPAN1010 class.

Below is chart 4.27, with their respective answers for all five items used to measure their FLPE:

- Item 35: I don't get bored in Spanish class.
- Item 36: I enjoy my Spanish class.
- Item 37: I'm a worthy member of the Spanish class.
- Item 38: In class, I feel proud of my accomplishments.
- Item 40: It's cool to learn Spanish.

| Coded name | Item 35 | Item 36 | Item 37 | Item 38 | Item 40 | $A V G$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| White Mare | 4 | 5 | 5 | 4 | 4 | 4.4 |
| Burgundy Hedgehog | 3 | 4 | 3 | 3 | 4 | 3.4 |
| Green Kangaroo | 5 | 4 | 4 | 4 | 4 | 4.2 |
| Brown Lion | 5 | 5 | 3 | 2 | 5 | 4 |
| Gray Rabbit | 4 | 5 | 5 | 5 | 5 | 4.8 |
| Magenta Bear | 4 | 5 | 4 | 4 | 4 | 4.2 |
| Brown Hippo | 5 | 5 | 5 | 5 | 5 | 5 |
| Gray Lion | 4 | 5 | 5 | 4 | 5 | 4.6 |
| White Goat | 4 | 5 | 4 | 4 | 5 | 4.4 |
| Average: | 4.22 | 4.78 | 4.22 | 3.89 | 4.56 | 4.33 |
| St. Dev.: | 0.63 | 0.41 | 0.78 | 0.87 | 0.50 | 0.44 |

Chart 4.27: FLPE quantitative responses from subjects participating in the qualitative portion of the study
Legend for all items: 1. Strongly disagree, 2. Disagree, 3. Neutral, 4. Agree, 5. Strongly Agree.

Students scored particularly high in the most straightforward of the questions, "I enjoy my Spanish class." Pride for their accomplishments in class is the lowest of all scores, and the only one under 4.

Finally, below is chart 4.28 , with all subjects' responses to the eight items used to measure their FLCA:

- Item 45: Even if I am well prepared for my Spanish class, I feel anxious about it.
- Item 46: I always feel that the other students speak Spanish better than I do.
- Item 47: I can feel my heart pounding when I'm going to be called on in Spanish class.
- Item 48: I don't worry about making mistakes in Spanish class.
- Item 49: I feel confident when I speak in Spanish class.
- Item 50: I get nervous and confused when I am speaking in my Spanish class.
- Item 51: I start to panic when I have to speak without preparation in Spanish class.
- Item 52: It embarrasses me to volunteer answers in my Spanish class.

| Coded name | Item 45 | Item 46 | Item 47 | Item 48 | Item 49 | Item 50 | Item 51 | Item 52 | AVG |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| White Mare | 4 | 3 | 2 | 4 | 3 | 4 | 3 | 3 | 3.25 |
| Burgundy <br> Hedgehog | 2 | 2 | 4 | 2 | 2 | 2 | 2 | 2 | 2.25 |
| Green Kangaroo | 4 | 3 | 5 | 4 | 3 | 5 | 5 | 4 | 4.125 |
| Brown Lion | 4 | 4 | 5 | 3 | 4 | 5 | 5 | 5 | 4.375 |
| Gray Rabbit | 5 | 3 | 4 | 3 | 3 | 4 | 4 | 3 | 3.625 |
| Magenta Bear | 4 | 3 | 2 | 3 | 3 | 2 | 4 | 2 | 2.875 |
| Brown Hippo | 5 | 2 | 2 | 3 | 1 | 2 | 1 | 1 | 2.125 |
| Gray Lion | 4 | 3 | 2 | 4 | 3 | 3 | 4 | 1 | 3 |
| White Goat | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 2 | 3.75 |
| Average: | 4.00 | 3.00 | 3.33 | 3.33 | 2.89 | 3.44 | 3.56 | 2.56 | 3.26 |
| St. Dev.: | 0.82 | 0.67 | 1.25 | 0.67 | 0.87 | 1.16 | 1.26 | 1.26 | 0.74 |

Chart 4.28: FLCA quantitative responses from subjects participating in the qualitative portion of the study
Legend for items 45, 46, 47, 50, 51 and 52: 1. Strongly disagree, 2. Disagree, 3. Neutral, 4. Agree, 5. Strongly Agree. Legend for items 48 and 49 (reverse coded): 5. Strongly disagree, 4. Disagree, 3. Neutral, 2. Agree, 1. Strongly Agree

Embarrassment and lack of confidence stand out as the lowest values for this group of respondents. Anxiety is more prevalent in the first answer. This indicates anxiety is always there, no matter how prepared they feel. The comparatively large standard
deviation within FLCA responses is also remarkable-not to mention typical for this classroom emotion in previous studies.

Finally, here are the responses these subjects provided in the quantitative portion of the study to assess their Spanish instructor's characteristics:

- Item 26: How strict is your instructor?
- Item 27: How friendly/approachable is your instructor?
- Item 29: How frequently does your instructor use Spanish in class?
- Item 33: Your instructor cares about you.
- Item 34: Your instructor is helpful.

Here are the responses each subject provided to each one of these items:

| Coded name | Item 26 | Item 27 | Item 29 | Item 33 | Item 34 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| White Mare | 4 | 4 | 4 | 4 | 4 |
| Burgundy Hedgehog | 5 | 5 | 5 | 4 | 4 |
| Green Kangaroo | 4 | 5 | 4 | 3 | 5 |
| Brown Lion | 4 | 5 | 5 | 5 | 5 |
| Gray Rabbit | 2 | 5 | 5 | 5 | 5 |
| Magenta Bear | 4 | 5 | 5 | 5 | 5 |
| Brown Hippo | 4 | 5 | 5 | 5 | 5 |
| Gray Lion | 5 | 5 | 4 | 5 | 5 |
| White Goat | 5 | 5 | 5 | 4 | 5 |
| Average: | 4.11 | 4.89 | 4.67 | 4.44 | 4.78 |
| St. Dev.: | 0.87 | 0.31 | 0.47 | 0.68 | 0.42 |

Chart 4.29: Teacher-centered variables quantitative responses from subjects participating in qualitative study

There were many variables in this research question. The number and diversity of codes that surfaced from analyzing the qualitative data were divided into three groups:

- Those referring to FLE (3)
- Those referring to FLCA (4)
- Those describing the role of instructors regarding those emotions (7).

Thirteen codes in total were identified as contributing to explain classroom emotions among these nine subjects. Here is a summary of those codes, the total number of times they were mentioned, and the number of subjects who mentioned them:

| Code | Total \# of <br> quotations | \# of subjects <br> quoting it (out <br> of 9 total) |
| :--- | :--- | :--- |
| Social enjoyment has a positive impact on the Spanish <br> learning process (FLE) | 7 | 5 |
| Private enjoyment in SPAN 1010 convinced me to <br> enroll in SPAN 1020 (FLE) | 2 | 1 |
| I draw personal satisfaction from my Spanish class <br> (FLE) | 6 | 4 |
| Reflections describing FLCA as an internal process <br> (FLCA) | 7 | 6 |
| Feeling anxiety for performing better than my peers <br> (FLCA) | 1 | 1 |
| Speaking Spanish in public as an anxiety arousal <br> experience (FLCA) | 10 | 5 |
| Impact of my Spanish grade on my GPA as a source of <br> classroom anxiety (FLCA) | 1 | 1 |


| A kind and helpful instructor makes the class enjoyable <br> (Instructor) | 6 | 4 |
| :--- | :--- | :--- |
| A likable instructor increases my positive attitude <br> towards the language, instilling enjoyment (Instructor) | 3 | 3 |
| A knowledgeable instructor makes learning Spanish <br> more enjoyable (Instructor) | 1 | 1 |
| A non-predictable professor makes learning more <br> enjoyable (Instructor) | 3 | 2 |
| Differences between enjoyable and unenjoyable <br> instructors (Instructor) | 4 | 3 |
| A strict instructor makes the class enjoyable <br> (Instructor) | 1 | 1 |
| Instructors' role on Anxiety (Instructor) | 4 | 3 |

Chart 4.30: Classroom emotions qualitative codes
From the information gathered, subjects are more aware of FLE than FLCA, or at least are more willing to discuss it openly. There is broad agreement FLSE contributes positively to their classroom experience, their perception of instructor and peers, and even the language. One exception to this general perception is the number of times personal satisfaction is brought up, arguably an expression of FLPE.

Subjects are aware of their FLCA, and they generally describe it as an internal factor rather than a circumstantial one. Two external factors that subjects declare increase their anxiety are speaking in Spanish in public and having an instructor who provides feedback harshly or bluntly. Other than those, there are more mentions to external factors contributing to FLE-in particular, kindness and helpfulness, likeability, non-predictable lessons, and, in more rare occasions, strictness and knowledgeability. Three of the nine subjects also state a direct association between having their preferred style of instructor and experiencing more FLE in the class.

### 4.3 The L2 Motivational Self System and L2 outcomes for Chattanooga State students of Spanish

Previous research indicates the most popular construct to research motivation in the SLA field, the L2MSS, may need to be reformulated to work properly in settings in which the target language is a LOTE. This is particularly true when the subjects' L1 is English, and when the target language is regarded with negative sociolinguistic perspectives. L2MSS implementation issues are to be expected in this experiment, given the fact the subjects in this study are precisely English L1 speakers studying a LOTE in an area in which antiHispanic rhetoric is commonplace. One of the research questions in this dissertation is devoted to exploring the suitability of L2MSS to explain the subjects' motivation profiles and predict some of their outcomes in the class, and the relationship between L2MSS and classroom emotions. This research question is RQ3: "To what extent are the ISM and OSM constructs related to classroom emotions? Can they predict academic results and the decision to persist and enroll in the second semester of Spanish at Chattanooga State?"

Based on research such as Dörnyei (2009), Dörnyei and Al-Hoorie (2017), and Thompson (2017), as well as Saito et al. (2018), the hypothesis is ISM will be positively correlated to positive classroom emotions, as well as with outcomes such as persistence and academic results. OSM, on the other hand, will not have the same predictive power as it will be fragmented, contradictory, and will lack the prevention-oriented nature that explains its influence in motivation in its original formulation.

To gather answers for this research question, students' ISM and OSM were measured at the beginning of the semester using the well-known test battery developed by Dörnyei in 2005. The purpose of analyzing the collected quantitative data was to detect the relationship between these two variables and the students' classroom emotions, academic results, mastery growth, and decisions to persist in the program and enroll in SPAN1020. Data regarding motivation were collected from the main experimental group ( 70 students enrolled in Spanish 1010 in the fall of 2018). To study the impact of these motivation constructs on persistence, subjects were divided into those who persisted in the program (38) and those who abandoned it (32). Qualitative data were also collected from a limited number of persisting subjects, with the primary aim of exploring the fragmented nature of the OSM construct which has been observed before in subjects studying LOTEs.

In summary, the variables taken into consideration were:
Motivation variables:

- ISM to study Spanish (1-5, Likert Scale)
- OSM to study Spanish (1-5, Likert Scale)

Classroom emotions variables:

- FLE (divided into FLSE and FLCA; 1-5, Likert Scale)
- FLCA (1-5, Likert Scale)

Outcome variables:

- Final grade (1-5, Likert Scale)
- Increase in mastery ( $0-100$, parametric)
- Decision to persist (1-0, binary)

Data treatment: All instruments utilized to collect data for this dissertation, including those used in this experiment, were subjected to a pilot run performed on two groups of SPAN1010 students during the summer semester of 2018, with thirty-five subjects in total. This pilot run offered consistent results, and the subjects reported no confusion or hesitance towards any of the items in either instrument.

Once quantitative data were collected, Cronbach's alpha analyses were performed to determine the reliability and internal consistency of the sets measuring the two motivation variables. Positive results were expected, as these instruments have also been utilized successfully in many studies since 2005. Less reliability was expected from the OSM instrument, as this construct has proven to be inadequate to describe motivation to study LOTEs. The five items measuring ISM motivation had a Cronbach's alpha coefficient of .878. This coefficient is within the "good" range, so all the collected results were used without modifications. The five items measuring OSM motivation had a Cronbach's alpha coefficient of .702. This coefficient is within the acceptable range but as expected, less solid than the ISM instrument. Chart 4.31 contains the average scores collected for ISM and OSM:

Code name Amaranth bear Amaranth zebra
Amaranth giraffe
Beige wolf
Black zebra
Blue dolphin
Blue rooster
Brass peacock 1
Brass peacock 2
Brass sheep
Brown lion
Brown sheep
Burgundy hedgehog
Burgundy horse
Burgundy zebra
Gray tiger
Green hippo
Green kangaroo
Grey pig
Magenta bear
Red Pig
White mare
Amaranth sheep
Amaranth zebra 1
Amaranth zebra 2
Amaranth zebra 3
Amber zebra
Amber lion
Auburn tiger
Brass horse
Brown zebra
Burgundy elephant
Gray hippo
Gray lion
White pig
Amaranth pig
Amber hedgehog
Amber zebra
Auburn horse
Brass lion
Black peacock
Black zebra
Bone camel
Bone zebra

Gender Age Ideal self M. Ought-to self M.

| Male | 15 | 3.2 | 3 |
| :---: | :---: | :---: | :---: |
| Female | 15 | 4.2 | 2.75 |
| Female | 15 | 3.6 | 3 |
| Female | 23 | 5 | 4 |
| Male | 19 | 3.2 | 2.75 |
| Female | 17 | 4.6 | 2.5 |
| Female | 19 | 5 | 2.75 |
| Male | 19 | 3.8 | 2 |
| Male | 15 | 2 | 1 |
| Male | 21 | 4 | 3.5 |
| Female | 19 | 3 | 2.25 |
| Female | 26 | 4.2 | 2.75 |
| Male | 16 | 2.8 | 3 |
| Male | 15 | 4.4 | 3 |
| Female | 15 | 4.8 | 1.5 |
| Female | 27 | 3.8 | 2 |
| Female | 20 | 5 | 2.25 |
| Female | 18 | 5 | 3.5 |
| Male | 26 | 4.2 | 2.5 |
| Female | 15 | 3.4 | 2 |
| Male | 19 | 2.4 | 2.5 |
| Female | 18 | 5 | 2.75 |
| Female | 18 | 3.6 | 2.75 |
| Female | 63 | 4.8 | 2 |
| Female | 63 | 4.2 | 2.25 |
| Male | 28 | 4 | 3.25 |
| Male | 18 | 4.4 | 4 |
| Male | 22 | 4.2 | 3.5 |
| Female | 18 | 4.2 | 2.5 |
| Male | 20 | 3.8 | 2 |
| Female | 46 | 4 | 2.25 |
| Female | 19 | 3.2 | 2 |
| Male | 15 | 3 | 2.25 |
| Male | 20 | 2.8 | 1.25 |
| Female | 21 | 4.8 | 3.5 |
| Female | 19 | 4.2 |  |
| Female | 63 | 4.6 | 1 |
| Female | 19 | 5 | 2.75 |
| Nonbinary | 15 | 3.8 | 2 |
| Female | 18 | 4.4 | 1.5 |
| Male | 16 | 1.2 | 3.25 |
| Male | 20 | 3 | 2.75 |
| Male | 16 | 3 | 2.5 |
| Male | 15 | 4.8 | 2.5 |


| Brass camel | Female | 21 | 4.4 | 3.25 |
| :---: | :---: | :---: | :---: | :---: |
| Brown lion | Female | 27 | 5 | 1.5 |
| Burgundy hippo | Male | 55 | 4 | 3.25 |
| Cyan zebra | Female | 15 | 3.8 | 2 |
| Cyan hippo | Female | 33 | 4.2 | 1.5 |
| Gray lion | Female | 17 | 3 | 1.5 |
| Gray rabbit | Male | 16 | 5 | 1 |
| Gray zebra | Female | 19 | 3.6 | 2.25 |
| Magenta bear | Female | 21 | 4 | 2 |
| Pink zebra | Female | 16 | 5 | 3.75 |
| Purple pig | Female | 19 | 2.2 | 2.5 |
| Red Tiger | Male | 15 | 3.8 | 2.5 |
| Auburn hedgehog | Female | 19 | 5 | 2 |
| Beige hippo | Female | 19 | 5 | 1.75 |
| Blue sheep | Female | 18 | 4.4 | 2.5 |
| Blue zebra | Female | 19 | 3.8 | 2 |
| Brown camel | Male | 19 | 4.6 | 1.5 |
| Brown hippo | Female | 18 | 4.6 | 2.25 |
| Brown rabbit | Female | 17 | 2.6 | 2 |
| Burgundy goat | Female | 18 | 3 | 3 |
| Cyan zebra | Female | 15 | 3.4 | 2.5 |
| Gray lion | Female | 18 | 3 | 1.25 |
| Green giraffe | Female | 22 | 2.2 | 1.75 |
| Red peacock | Male | 18 | 4.4 | 2.5 |
| Tan bear | Male | 19 | 4.6 | 2 |
| White goat | Female | 18 | 4.4 | 1.75 |
|  |  | Average: | 3.92 | 2.375 |
|  |  | St. Dev.: | 0.85 | 0.71 |

Chart 4.31: Average scores for ISM and OSM
The first analyses were Chi-square and Fisher's exact tests, to determine if there was a statistically significant difference between the expected and observed frequencies in the degree of motivation and the emotions experienced in the classroom. Responses were classified into two mutually exclusive categories. Those who reported ISM or OSM averages of 4-5 were included in the groups "High ISM" and "High OSM," respectively. Meanwhile, those who reported ISM or OSM averages under 3 were included in the groups "Low ISM" and "Low OSM," respectively. Those who reported ISM or OSM averages of 3-3.99 were divided equally between both groups. Subjects were further divided according to their responses to the FLSE, FLPE, and FLCA constructs; they were divided into two groups depending on their scores for each emotional construct, "high"
or "low," following the criteria used in the non-parametric tests run in the preceding sections. The results of these calculations can be found in charts 4.32-4.37:

|  | High ISM (43) | Low ISM (15) |
| :--- | :--- | :--- |
| High Social Enjoyment (43) | 33 | 10 |
| Low Social Enjoyment (15) | 10 | 5 |
| Chi-square | $\mathbf{X}^{\mathbf{2}}=\mathbf{0 . 5 8 9}$ | $\mathbf{p = . 4 4 2 8}$ |
| Fisher's exact | $\mathbf{p = . 5 0 1 5}$ |  |

Chart 4.32: Chi-square \& Fisher's exact tests for ISM vs FLSE
The results are not significant at $\mathrm{p}<.05$.

|  | High ISM (43) | Low ISM (15) |
| :--- | :--- | :--- |
| High Private Enjoyment (43) | 34 | 9 |
| Low Private Enjoyment (15) | 9 | 6 |
| Chi-square | $\mathbf{X}^{\mathbf{2}}=\mathbf{2 . 1 0 9 2}$ | $\mathbf{p = . 1 4 6 4}$ |
| Fisher's exact | $\mathbf{p = . \mathbf { 1 7 8 9 }}$ |  |

Chart 4.33: Chi-square \& Fisher's exact tests for ISM vs FLPE
The results are not significant at $\mathrm{p}<.05$.

|  | High ISM (43) | Low ISM (15) |
| :--- | :--- | :--- |
| High Anxiety (25) | 17 | 8 |
| Low Anxiety (33) | 26 | 7 |
| Chi-square | $\mathbf{X}^{\mathbf{2}}=\mathbf{0 . 8 6 3 4}$ | $\mathbf{p = . 3 5 2 8}$ |
| Fisher's exact | $\mathbf{p}=\mathbf{. 3 8 0 8}$ |  |

Chart 4.34: Chi-square \& Fisher's exact tests for ISM vs FLCA
The results are not significant at $\mathrm{p}<.05$.

|  | High OSM (13) | Low OSM (45) |
| :--- | :--- | :--- |
| High Social Enjoyment (43) | 8 | 35 |
| Low Social Enjoyment (15) | 5 | 10 |
| Chi-square | $\mathbf{X}^{\mathbf{2}}=\mathbf{1 . 3 8 7 3}$ | $\mathbf{p = . 2 3 8 9}$ |
| Fisher's exact | $\mathbf{p = . 2 8 8 2}$ |  |

Chart 4.35: Chi-square \& Fisher's exact tests for OSM vs FLSE
The results are not significant at $\mathrm{p}<.05$.

|  | High OSM (13) | Low OSM (45) |
| :--- | :--- | :--- |
| High Private Enjoyment (43) | 8 | 35 |
| Low Private Enjoyment (15) | 5 | 10 |
| Chi-square | $\mathbf{X}^{\mathbf{2}}=\mathbf{0 . 9 9 2}$ | $\mathbf{p = . 3 1 9 2}$ |
| Fisher's exact | $\mathbf{p = . 4 8 1 7}$ |  |

Chart 4.36: Chi-square \& Fisher's exact tests for OSM vs FLPE
The results are not significant at $\mathrm{p}<.05$.

|  | High OSM (13) | Low OSM (45) |
| :--- | :--- | :--- |
| High Anxiety (25) | 6 | 19 |
| Low Anxiety (33) | 7 | 26 |
| Chi-square | $\mathbf{X}^{\mathbf{2}}=\mathbf{0 . 0 6 3 6}$ | $\mathbf{p = . 8 0 0 9}$ |
| Fisher's exact | $\mathbf{p}=\mathbf{1}$ |  |

Chart 4.37: Chi-square \& Fisher's exact tests for OSM vs FLCA
The results are not significant at $\mathrm{p}<.05$.

No statistically significant relationship between motivation and classroom emotions was found. ISM and FLPE were close. To further explore these relationships, Pearson's and Spearman's Rho correlation tests were run using the numeric averages from subject responses:

## ISM and FLSE

## Result details \& calculations

R Calculation
$\mathrm{r}=\Sigma((\mathrm{X}-\mathrm{My})(\mathrm{Y}-\mathrm{Mx})) / \sqrt{ }((\mathrm{SSx})(\mathrm{SSy}))$
$\mathrm{r}=7.752 / \sqrt{ }((42.194)(18.474))=.2777$

## Meta numerics (cross-check)

$r=.2777$

The p -value is $<.0353$. The result is significant at $\mathrm{p}<.05$.
The value of $r$ is: . 2777 , a small positive correlation.

Spearman's Rho calculations were conducted to confirm the relationship between the variables, since Likert scales are considered non-parametric data. The results were $r_{s}=$ $.3021, p=.0211$. A statistically significant medium positive relationship between the two variables.

## ISM and FLPE

```
    Result details \& calculations
    R Calculation
    \(\mathrm{r}=\sum((\mathrm{X}-\mathrm{My})(\mathrm{Y}-\mathrm{Mx})) / \sqrt{ }((\mathrm{SSx})(\mathrm{SSy}))\)
    \(r=14.394 / \sqrt{ }((42.194)(31.663))=.3938\)
    Meta numerics (cross-check)
    \(\mathrm{r}=. \mathbf{3 9 3 8}\)
```

The p -value is $<.0022$. The result is significant at $\mathrm{p}<.05$.

The value of $r$ is: .3938, a medium positive correlation.
Spearman's Rho calculations obtained the following results: $\mathrm{r}_{\mathrm{s}}=.3734, \mathrm{p}=.0039$, confirming the statistically significant medium positive relationship between the two variables.

## ISM and FLCA

Result details \& calculations
R Calculation
$\mathrm{r}=\Sigma((\mathrm{X}-\mathrm{My})(\mathrm{Y}-\mathrm{Mx})) / \sqrt{ }((\mathrm{SSx})(\mathrm{SSy}))$
$r=-5.659 / \sqrt{ }((42.194)(51.137))=-.1218$
Meta numerics (cross-check)

$$
\mathrm{r}=-.1218
$$

The p -value is $<.3616$. The result is not significant at $\mathrm{p}<.05$.
The value of $r$ is: -.1218, a small negative correlation.

The Spearman's Rho coefficient was calculated, resulting in $\mathrm{r}_{\mathrm{s}}=-.0199, \mathrm{p}=.8819$, indicating there is no correlation between the two variables.

## OSM to FLSE

```
    Result details \& calculations
    \(R\) Calculation
    \(\mathrm{r}=\Sigma((\mathrm{X}-\mathrm{My})(\mathrm{Y}-\mathrm{Mx})) / \sqrt{ }((\mathrm{SSx})(\mathrm{SSy}))\)
    \(r=-6.064 / \sqrt{ }((29.251)(18.474))=-.2609\)
    Meta numerics (cross-check)
    \(r=-.2609\)
```

The p -value is $<.0478$. The result is significant at $\mathrm{p}<.05$.

The value of $r$ is: -.2609, a small negative correlation.
Spearman's Rho calculations were also conducted, obtaining $\mathrm{r}_{\mathrm{s}}=-.3031$, $\mathrm{p}=.0207$, indicating a statistically significant medium negative correlation between the variables.

## OSM and FLPE

Result details \& calculations
$R$ Calculation
$\mathrm{r}=\Sigma((\mathrm{X}-\mathrm{My})(\mathrm{Y}-\mathrm{Mx})) / \sqrt{ }((\mathrm{SSx})(\mathrm{SSy}))$
$r=-3.181 / \sqrt{ }((29.251)(31.663))=-.1045$

Meta numerics (cross-check)
$r=\mathbf{- . 1 0 4 5}$

The p -value is < . 4372 . The result is not significant at $\mathrm{p}<.05$.
The value of $r$ is: -.1045, a small negative correlation.

The Spearman's Rho coefficient for these two variables was $\mathrm{r}_{\mathrm{s}}=-.1898, \mathrm{p}=.1535$, confirming the low negative correlation, even though it is not statistically significant.

## OSM to FLCA

## Result details \& calculations

## $R$ Calculation

$r=\sum((X-M y)(Y-M x)) / \sqrt{ }((S S x)(S S y))$
$r=-3.611 / \sqrt{ }((29.251)(51.137))=-.0934$
Meta numerics (cross-check)
$r=-.0934$

The p -value is < .4827. The result is not significant at $\mathrm{p}<.05$.
The value of $r$ is: -.0934, which shows no correlation.
Spearman's Rho calculations were conducted to confirm the relationship between the variables. The results were $\mathrm{r}_{\mathrm{s}}=-.0493, \mathrm{p}=.7127$, confirming the lack of correlation between the two variables.

These tests confirm the relationship between ISM and FLE, but they also unveil a small negative (yet not significant) correlation between ISM and FLCA. The surprising results are those exploring the correlation between OSM and all three emotional values; this motivational construct appears to be negatively correlated with all three emotions, a negative relationship that is only statistically significant for OSM and FLSE.

## Can ISM and OSM predict persistence in the program?

The firsts test used to establish relationships between the variables in question were Chisquare and Fisher's exact tests. Subjects were divided into two groups: those who remained and those who quit. The results are in charts 4.38 and 4.39:

|  | Remained (38) | Quit (32) |
| :--- | :--- | :--- |
| High ISM (51) | 28 | 23 |
| Low ISM (19) | 10 | 9 |
| Chi-square | $\mathbf{X}^{\mathbf{2}}=\mathbf{0 . 0 2 8 8}$ | $\mathbf{p = . 8 6 5 3}$ |
| Fisher's exact | $\mathbf{p = 1}$ |  |

Chart 4.38: Chi-square \& Fisher's exact tests for ISM vs Persistence
The results are not significant at $\mathrm{p}<.05$.

|  | Remained (38) | Quit (32) |
| :--- | :--- | :--- |
| High OSM (12) | 5 | 7 |
| Low OSM (58) | 33 | 25 |
| Chi-square | $\mathbf{X}^{\mathbf{2}}=\mathbf{0 . 9 2 9 3}$ | $\mathbf{p = . 3 3 5 0}$ |
| Fisher's exact | $\mathbf{p = . 3 6 0 7}$ |  |

Chart 4.39: Chi-square \& Fisher's exact tests for OSM vs Persistence
The results are not significant at $\mathrm{p}<.05$.
Based on these results, there is not any statistically significant relationship between either of the motivational constructs, nor with the decision to persist or abandon the Spanish program at Chattanooga State.

To further explore these aspects, logistic regressions were conducted. These were the results obtained:

|  | Coefficient | Standard error | p-value | Odds ratio | 95\% confidence interval |
| :--- | :--- | :--- | :--- | :--- | :--- |
| ISM | 0.3851 | 0.2858 | $\mathbf{. 1 7 7 8}$ | $\mathbf{1 . 4 6 9 8}$ | $(0.8395,2.5734)$ |
| Constant | -1.3364 | 1.1451 | $\mathbf{. 2 4 3 2}$ |  |  |
| OSM | -0.2467 | 0.3332 | $\mathbf{. 4 5 9 1}$ | $\mathbf{0 . 7 8 1 4}$ | $(0.4067,1.5014)$ |
| Constant <br> Chart 4.40: Logistic regression results for ISM, OSM and persistence. |  |  |  |  |  |
|  | 0.7590 | 0.8305 | $\mathbf{. 3 6 0 7}$ |  |  |

ISM is a better predictor of persistence than OSM, which has odds under one. However, neither of these criteria are statistically significant. Based on the results obtained, it can be said that ISM is a weak predictor of persistence. However, this relationship is not statistically significant. Oddly, OSM seems to be better suited to predicting attrition than persistence.

Finally, to get a clearer picture of the impact of ISM and OSM on the subjects in this study, Pearson's correlation and Spearman's Rho tests were run to explore the relationship between these variables and students' academic results. The data for grades and proficiency increase are in chart 4.41:

| Code name | Gender |  | Age | Grade |
| :--- | :--- | :--- | :--- | :--- |
| Gain |  |  |  |  |
| Amaranth bear | Male | 15 | 3 | 36.75 |
| Amaranth giraffe | Female | 15 | 4 | 48.5 |
| Black zebra | Male | 19 | 3 | 43.5 |
| Blue dolphin | Female | 17 | 2 | -2 |
| Blue rooster | Female | 19 | 1 | 0 |
| Brass sheep |  |  |  |  |
| Brown sheep | Male | 21 | 1 | 0 |
|  | Female | 26 | 4 | 61.5 |

Burgundy zebra Burgundy hedgehog
Burgundy horse
Gray tiger
Green hippo
Green kangaroo
Grey pig
Magenta bear
White Mare
Amaranth sheep
Amaranth zebra 1
Amaranth zebra 2
Amber lion
Amber zebra
Auburn tiger
Brass horse
Brown zebra
Gray hippo
Gray lion
Tan giraffe
White pig
Amaranth pig
Amber hedgehog
Amber zebra
Black peacock
Bone zebra
Bone camel
Brown lion
Burgundy elephant
Cyan hippo
Cyan zebra
Gray lion
Gray rabbit
Gray zebra
Magenta bear
Pink zebra
Purple pig
Red Tiger
Auburn hedgehog
Beige hippo
Blue sheep
Brown camel
Brown hippo
Brown rabbit
Burgundy goat

| Female | 15 | 4 | 23.25 |
| :---: | :---: | :---: | :---: |
| Male | 16 | 4 | 55.5 |
| Male | 15 | 3 | 38.25 |
| Female | 27 | 3 | 51.5 |
| Female | 20 | 4 | 27.25 |
| Female | 18 | 4 | 40.5 |
| Male | 26 | 4 | 34.75 |
| Female | 15 | 2 | 30.5 |
| Female | 18 | 4 | 49.25 |
| Female | 18 | 4 | 27 |
| Female | 63 | 3 | 39.25 |
| Male | 28 | 1 | 0 |
| Male | 23 | 1 | 0 |
| Female | 15 | 1 | 0 |
| Female | 18 | 3 | 9.25 |
| Male | 20 | 1 | 40.25 |
| Female | 46 | 4 | -5 |
| Male | 15 | 1 | 0 |
| Male | 20 | 2 | 46.25 |
| Female | 20 | 3 | 33.25 |
| Female | 21 | 1 | 34 |
| Female | 19 | 2 | 55 |
| Female | 63 | 1 | 0 |
| Female | 19 | 2 | 30 |
| Male | 16 | 3 | 48 |
| Male | 15 | 2 | 31 |
| Male | 16 | 2 | 19 |
| Female | 27 | 4 | 60 |
| Female | 19 | 4 | 19 |
| Female | 33 | 1 | 0 |
| Female | 15 | 2 | 26 |
| Female | 17 | 4 | 63 |
| Male | 16 | 2 | 55 |
| Female | 19 | 3 | 33 |
| Female | 21 | 3 | 22 |
| Female | 16 | 4 | 68 |
| Female | 19 | 3 | 17 |
| Male | 15 | 2 | 61 |
| Female | 19 | 4 | 70 |
| Female | 19 | 2 | 18 |
| Female | 18 | 1 | 7 |
| Male | 19 | 3 | 49 |
| Female | 18 | 4 | 13 |
| Female | 17 | 4 | 11 |
| Female | 18 | 1 | 0 |


| Cyan zebra | Female | 15 | 4 | 50 |
| :--- | :--- | :--- | :--- | :--- |
| Gray lion | Female | 18 | 4 | 38 |
| Green giraffe | Female | 22 | 3 | 46 |
| Red peacock | Male | 18 | 2 | 43 |
| Tan bear | Male | 19 | 4 | 11 |
| White goat | Female | 19 | 4 | 28 |
|  |  | Average: | $\mathbf{2 . 7 2}$ | $\mathbf{3 0 . 2 5}$ |

Chart 4.41: Subjects' final grades and proficiency gains
And here are the results for the Pearson's correlation tests that were run:

## ISM and final grades

Result details \& calculations

R Calculation
$\mathrm{r}=\sum((\mathrm{X}-\mathrm{My})(\mathrm{Y}-\mathrm{Mx})) / \sqrt{ }((\mathrm{SSx})(\mathrm{SSy}))$
$r=-5.331 / \sqrt{ }((42.194)(130.483))=-.0718$
Meta numerics (cross-check)
$r=-.0718$
The p -value is $<.5963$. The result is not significant at $\mathrm{p}<.05$.
The value of $r$ is: -.0718, which implies no correlation.
A Spearman's Rho correlation test was run, resulting in $\mathrm{r}_{\mathrm{s}}=-.0277, \mathrm{p}=.8365$, confirming there is no relationship between the two variables.

## OSM and final grades

Result details \& calculations
R Calculation
$\mathrm{r}=\sum((\mathrm{X}-\mathrm{My})(\mathrm{Y}-\mathrm{Mx})) / \sqrt{ }((\mathrm{SSx})(\mathrm{SSy}))$
$r=-7.953 / \sqrt{ }((29.251)(130.483))=-.1287$
Meta numerics (cross-check)
$r=-.1287$

The p -value is < . 3345 . The result is not significant at $\mathrm{p}<.05$.
The value of $r$ is: -.1287. A low negative correlation.
Spearman's Rho calculations were run, resulting in $\mathrm{r}_{\mathrm{s}}=-.0773, \mathrm{p}=.5642$, indicating there is no relationship between the two variables.

The same tests were run to explore the relationship between ISM, OSM and subjects’ proficiency increase:

## ISM and proficiency increase

Result details \& calculations
R Calculation
$\mathrm{r}=\sum((\mathrm{X}-\mathrm{My})(\mathrm{Y}-\mathrm{Mx})) / \sqrt{ }((\mathrm{SSx})(\mathrm{SSy}))$
$r=20.08 / \sqrt{ }((42.194)(25572.936))=.0193$
Meta numerics (cross-check)
$\mathrm{r}=. \mathbf{0 1 9 3}$

The p -value is $<.8815$. The result is not significant at $\mathrm{p}<.05$.
The value of $r$ is: .0193 , which imply no correlation.
Spearman's Rho results: $\mathrm{r}_{\mathrm{s}}=.0615, \mathrm{p}=.6466$
OSM and proficiency increase
Result details \& calculations
R Calculation
$\mathrm{r}=\sum((\mathrm{X}-\mathrm{My})(\mathrm{Y}-\mathrm{Mx})) / \sqrt{ }((\mathrm{SSx})(\mathrm{SSy}))$
$r=-142.332 / \sqrt{ }((29.251)(25572.936))=-.1646$
Meta numerics (cross-check)
$r=-.1646$

The p -value is < .2158. The result is not significant at $\mathrm{p}<.05$.
The value of $r$ is: -.1646. A small negative correlation.
Spearman's Rho results: $r_{s}=-.1414, p=.2895$
Based on these figures, ISM and OSM present no statistically significant relationship with the grades or the increase in proficiency experienced by the subjects.

Qualitative data were collected in the spring of 2019 to better explain the insights from the quantitative data collected in the fall of 2018. These qualitative data were particularly useful to understand the anomalous nature of the OSM data. A narrative and two interviews were collected in three separate instances from nine subjects. All nine subjects had participated in the quantitative portion of the study. The average OSM score for this group is 2.5 , with a standard deviation of 0.53 , in line with the average score and standard deviation of the whole quantitative sample $(\mathrm{n}=58)$ of 2.37 and 0.71 , respectively.

Chart 4.42 contains the answers these nine subjects provided for each of the four items used in the quantitative portion of the study to characterize their OSM:

- Item 36: My family believes that I must study Spanish to be an educated person.
- Item 37: Learning Spanish is necessary because people around me expect me to do so.
- Item 38: I have to study Spanish because, if I do not study it, it might hurt my career.
- Item 39: I study Spanish because close friends of mine think it is important

| Coded name | Item 36 | Item 37 | Item 38 | Item 39 | $A V G$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| White Mare | 3 | 2 | 4 | 2 | 2.75 |
| Burgundy Hedgehog | 3 | 3 | 2 | 2 | 2.5 |
| Green Kangaroo | 3 | 3 | 3 | 4 | 3.25 |
| Brown Lion | 2 | 2 | 4 | 2 | 2.5 |
| Gray Rabbit | 2 | 4 | 2 | 2 | 2.5 |
| Magenta Bear | 3 | 3 | 3 | 2 | 2.75 |
| Brown Hippo | 4 | 2 | 2 | 2 | 2.5 |
| Gray Lion | 1 | 1 | 2 | 1 | 1.25 |
| White Goat | 3 | 2 | 2 | 3 | 2.5 |
| Average: | 2.66 | 2.44 | 2.66 | 2.22 | 2.5 |
| St. Dev.: | 0.81 | 0.83 | 0.81 | 0.78 | 0.5 |

Chart 4.42: Qualitative subjects' responses to OSM quantitative items.
Legend: 1. Strongly disagree, 2. Disagree, 3. Neutral, 4. Agree, 5. Strongly Agree

The quantitative results of these nine subjects do not differ greatly from those in the entire sample. Out of a total of 36 responses, there are no "Strongly Agree," 5 "Agree," 9 "Neutral," 17 "Disagree," and 3 "Strongly Disagree."

Qualitative data collected from these nine subjects offer a rich insight into these scores. Once the information was processed, 11 codes related to the ought-to self dimension of motivation emerged. Each one of these, along with the number times each was quoted can be found in chart 4.43:

| Code | Total \# of <br> quotations | \# of subjects <br> quoting it (out of <br> 9 total) |
| :--- | :--- | :--- |
| Academic advisors encouraging/discouraging <br> learning Spanish | 5 | 4 |
| Some friends of mine (don't) expect me to learn <br> Spanish | 31 | 9 |
| My parents (don't) expect me to learn Spanish | 30 | 9 |
| Other relatives (don't) expect me to learn Spanish | 21 | 9 |
| Romantic partners (don't) expect me to learn <br> Spanish | 7 | 1 |
| Society (doesn't) expect me to learn Spanish | 20 | 9 |
| Sociolinguistic ideologies | 68 | 9 |
| My future professional field would (not) require <br> me to learn Spanish | 27 | 9 |
| The presence of Spanish in this area makes <br> learning it (un)necessary | 18 | 9 |
| I must learn Spanish to make my teacher proud | 15 | 7 |

Chart 4.43: OSM qualitative codes
Although the opinions expressed in these quotations do not significantly divert from what can be inferred from the quantitative data, a great level of nuance can be detected in their responses. Primarily, the degree of intensity of each aspect of the OSM dimension becomes a motivator for them. For example, only one of the subjects declares her parents have a firm expectation of her to learn Spanish, whereas none of the other subjects' parents have this expectation. However, many of those who do not believe their parents expect them to learn the language still believe that they would support their efforts and would be proud if they did.

Another major aspect that surfaced through the collection of qualitative data is the ample awareness students have of dominant sociolinguistic ideologies regarding the Spanish language. These subjects consistently perceived themselves as having a more positive sociolinguistic perception of the language than those around them, with that perceived divergence having a mediating effect on their OSM-sometimes reinforcing it, sometimes defusing it.

A general aspect of the subjects' narratives regarding OSM depart from the traditional description of this dimension as focused on prevention of a negative outcome. Only one subject believes not learning Spanish may hurt their career. On the contrary, most descriptions of the external factors for learning Spanish are more related to promotion: achieving a benefit, pleasing someone emotionally relevant, gaining access to more meaningful leisure or professional experiences, upholding virtue in the face of bigotry, etc. It also seems external opposition to learning Spanish, or the low sociolinguistic status of the language in some circles relevant to these subjects is often perceived as a positive motivator, indicating the potential explanatory power of the AOTS construct in these contexts (Thompson, 2017).

The data related to the sociolinguistic ideologies in which these subjects are immersed indicate subjects experience a dichotomy that leads them to believe either a significant percentage of society around them does not value Spanish, or that it is not required in professional or academic settings. Meanwhile, nearly all of them indicate it has the potential to benefit them professionally, and as a personal conviction, they believe it is more important to them than to most of the people around them.

One general aspect emerging from the analysis of the data is that, despite the low overall scores these subjects obtained in the traditional OSM questionnaire (2.5), all of them have at least one important person in their lives who has enabled them to undertake the study of Spanish, persevere in it, or both. This fact, however, does not prevent many of them from assertively stating that their goal to learn Spanish is exclusively personal and self-sustained.

Finally, it seems instructors have more than one effect on learning Spanish at ChSCC. They can not only increase FLE and make FLCA worse in some circumstances but, in the case of students having a lack of significant authority figures valuing their learning
of Spanish, they may partially fill that role. Thus, instructors may become sources of external motivation for students who have a high concept of them and may feel motivated to perform better to please their instructors.

### 4.4 Classroom emotions, persistence, and student outcomes at Chattanooga State's Spanish program

The last research question is fundamental, as the answer to it increases the relevance of RQ2. RQ4 states: "To what extent can FLCA, FLEP, and FLES predict academic results and the decision to persist and enroll in the second semester of Spanish at Chattanooga State?"

The hypothesis is that FLCA and FLE in the Spanish language classroom can predict academic results and the decision to persist and enroll in the second semester of Spanish at ChSCC. FLCA is expected to correlate negatively with results and persistence, although that correlation will not be consistent enough to be statistically significant. FLE is expected to be correlated with persistence and better grades. This hypothesis was formulated based on previous studies, such as MacIntyre and Gregersen (2012), or Dewaele and MacIntyre (2014, 2019). Data are collected from two groups: students who abandon the program before enrolling in SPAN1020, and students who enroll in SPAN1020.

Classroom emotions variables:

- FLE (divided into FLSE and FLCA; 1-5, Likert Scale)
- FLCA (1-5, Likert Scale)

Outcome variables:

- Final grade (1-5, Likert Scale)
- Increase in mastery ( $0-100$, parametric)
- Decision to persist (1-0, binary)


## Data treatment:

All instruments utilized to collect data for this dissertation, including those used in this experiment, were subjected to a pilot performed on two groups of SPAN1010 students during the summer semester of 2018, with thirty-five subjects in total. This pilot run offered consistent results, and the subjects reported no confusion or hesitancy towards any of the items in either instrument. Cronbach's alpha coefficients for the constructs in this experiment had already been run for experiment two, and so there was no need to run them again.

Since the data regarding emotions were non-parametric, the first tests were Chi-square and Fisher's exact tests. Subjects were divided into two groups: those who remained in the program and enrolled in SPAN1020, and those who either withdrew, or did not pass SPAN1010. Subjects within these two groups were further divided according to whether they reported high or low classroom emotions. Subjects who reported average scores of $4-5$ in a given emotion were included in the "high" group, while subjects reporting average scores under 3 were included in the "low" one. Subjects with average scores between 3 and 3.99 were equally divided among both groups.

|  | Remained (38) | Quit (20) |
| :--- | :--- | :--- |
| High Social Enjoyment (43) | 33 | 9 |
| Low Social Enjoyment (15) | 5 | 10 |
| Chi-square | $\mathbf{X}^{\mathbf{2}}=\mathbf{1 0 . 1 7 8 6}$ | $\mathbf{p = . 0 0 1 4}$ |
| Fisher's exact | $\mathbf{p = . 0 0 3 1}$ |  |

Chart 4.44: Chi-square \& Fisher's exact tests for FLSE vs persistence
The results are significant at $\mathrm{p}<.05$.

|  | Remained (38) | Quit (20) |
| :--- | :--- | :--- |
| High Private Enjoyment (43) | 32 | 11 |
| Low Private Enjoyment (15) | 6 | 9 |
| Chi-square | $\mathbf{X}^{\mathbf{2}}=\mathbf{5 . 8 3 1 2}$ | $\mathbf{p = . 0 1 5 7}$ |
| Fisher's exact | $\mathbf{p = . 0 2 6 2}$ |  |

Chart 4.45: Chi-square \& Fisher's exact tests for FLPE vs persistence

The results are significant at $\mathrm{p}<.05$.

|  | Remained (38) | Quit (20) |
| :--- | :--- | :--- |
| High Anxiety (25) | 15 | 10 |
| Low Anxiety (33) | 23 | 10 |
| Chi-square | $\mathbf{X}^{\mathbf{2}}=\mathbf{0 . 5 9 2}$ | $\mathbf{p = . 4 4 1 6}$ |
| Fisher's exact | $\mathbf{p = . 5 7 8 2}$ |  |

Chart 4.46: Chi-square \& Fisher's exact tests for FLCA vs persistence
The results are not significant at $\mathrm{p}<.05$.

These results show FLE is more effective than ISM and OSM predicting the persistence of students in the Spanish program at Chattanooga State beyond the first semesterparticularly FLSE. Meanwhile, FLCA does not seem to have the same predictive value. To further explore the relationship between emotional variables and persistence, logistic regressions were performed with the data. These were the results obtained:

| Variable | Coefficient | Standard Error | p-value | Odds Ratio | 95\% Confidence Interval |
| :--- | :--- | :--- | :--- | :--- | :--- |
| FLSE | 1.9857 | 0.6697 | $\mathbf{. 0 0 3}$ | $\mathbf{7 . 2 8 3 9}$ | $(1.9603,27.0650)$ |
| Constant | -7.5266 | 2.7425 | $\mathbf{. 0 0 6 1}$ |  |  |
| FLPE | 0.9525 | 0.4168 | $\mathbf{. 0 2 2 3}$ | $\mathbf{2 . 5 9 2 1 1}$ | $(1.1452,5.8668)$ |
| Constant | -3.0586 | 1.6297 | $\mathbf{. 0 6 0 5}$ |  |  |
| FLCA | -0.1589 | 0.2975 | $\mathbf{. 5 9 3 3}$ | $\mathbf{0 . 8 5 3 1}$ | $(0.4762,1.5283)$ |
| Constant | 1.1551 | 1.0065 | $\mathbf{. 2 5 1 1}$ |  |  |

Chart 4.47: Logistic regression for persistence and classroom emotions
Confirming results obtained from the non-parametric test, the logistic regression indicates FLSE and FLPE can predict persistence, with an odds ratio of 7.2839 and 2.59211, respectively. FLCA, on the other hand, has associated lower persistence odds ( 0.8531 ), even though these are far from being statistically significant.

Finally, the relationship between emotional variables and academic results were explored. Two different indicators were used as an expression of academic results: the final grade students obtained in the SPAN1010 course, and their proficiency gains. The latter was measured as the difference between the scores they obtained on two identical tests-a pre-test and post-test-completed at the beginning and the end of the semester, respectively. To explore the relationship between these variables, the statistical operations of choice were Pearson's and Spearman Rho's correlation tests. These are the results:

## FLSE and final grades

Result details \& calculations
R Calculation
$r=\sum((X-M y)(Y-M x)) / \sqrt{ }((S S x)(S S y))$
$\mathrm{r}=9.147 / \sqrt{ }((18.474)(75.586))=.2448$
Meta numerics (cross-check)
$r=.2448$
The p -value is < .064. The result is not significant at $\mathrm{p}<.05$.
The value of $r$ is: .2448, a small positive correlation.
A Spearman's Rho test was conducted to further explore this relationship, obtaining $r_{s}=$ $.267, p=.0427$, a statistically significant low correlation between both variables.

## FLPE and final grades

Result details \& calculations
$R$ Calculation
$\mathrm{r}=\sum((\mathrm{X}-\mathrm{My})(\mathrm{Y}-\mathrm{Mx})) / \sqrt{ }((\mathrm{SSx})(\mathrm{SSy}))$
$r=11.917 / \sqrt{ }((31.663)(75.586))=.2436$
Meta numerics (cross-check)
$r=.2436$

The p -value is < .0653. The result is not significant at $\mathrm{p}<.05$.
The value of $r$ is: .2436, a small positive correlation.

Spearman's Rho calculations were conducted to further explore this relationship, obtaining $\mathrm{r}_{\mathrm{s}}=.2732, \mathrm{p}=.038$, a statistically significant low correlation between the two variables.

## FLCA and final grade

Result details \& calculations
$R$ Calculation
$r=\sum((X-M y)(Y-M x)) / \sqrt{ }((S S x)(S S y))$
$r=-6.155 / \sqrt{ }((51.137)(75.586))=-.099$
Meta numerics (cross-check)
$r=-.099$
The p -value is < . 4596 . The result is not significant at $\mathrm{p}<.05$.
The value of $r$ is: -.099, indicating no correlation.
Spearman's Rho calculations were conducted to further explore this relationship, obtaining $\mathrm{r}_{\mathrm{s}}=-.1145, \mathrm{p}=.3918$. This is a low negative correlation between the variables, although statistically not significant.

Based on these results, there are small positive correlations between FLE and grades, and a small negative correlation with FLCA. The former is statistically significant according to some of the tests, whereas the latter is not in any case.

Pearson's correlation and Spearman's Rho tests were also run to find relationships between FLSE and proficiency gains.

## FLSE and proficiency gains

## Result details \& calculations

R Calculation
$\mathrm{r}=\sum((\mathrm{X}-\mathrm{My})(\mathrm{Y}-\mathrm{Mx})) / \sqrt{ }((\mathrm{SSx})(\mathrm{SSy}))$
$r=131.858 / \sqrt{ }((18.474)(25572.936))=.1918$
Meta numerics (cross-check)
$r=.1918$

The p -value is $<.1775$. The result is not significant at $\mathrm{p}<.05$. The value of $r$ is: .1918, a small positive correlation.

Spearman's Rho results: $\mathrm{r}_{\mathrm{s}}=.2071, \mathrm{p}=.1187$

## FLPE and proficiency gains

## Result details \& calculations

R Calculation
$\mathrm{r}=\sum((\mathrm{X}-\mathrm{My})(\mathrm{Y}-\mathrm{Mx})) / \sqrt{ }((\mathrm{SSx})(\mathrm{SSy}))$
$r=153.236 / \sqrt{ }((31.663)(25572.936))=.1703$

Meta numerics (cross-check)
$\mathrm{r}=.1703$

The p -value is < .2321. The result is not significant at $\mathrm{p}<.05$.
The value of $r$ is .1703 , a small positive correlation.
Spearman's Rho results: $\mathrm{r}_{\mathrm{s}}=.1385, \mathrm{p}=.2997$

## FLCA and proficiency gains

## Result details \& calculations

R Calculation
$\mathrm{r}=\Sigma((\mathrm{X}-\mathrm{My})(\mathrm{Y}-\mathrm{Mx})) / \sqrt{ }((\mathrm{SSx})(\mathrm{SSy}))$
$r=53.709 / \sqrt{ }((51.137)(25572.936))=.047$
Meta numerics (cross-check)
$\mathbf{r}=.047$
The p -value is $<.7432$. The result is not significant at $\mathrm{p}<.05$.

The value of $r$ is: .047, indicating no correlation.

Spearman's Rho results: $\mathrm{r}_{\mathrm{s}}=.0249, \mathrm{p}=.8529$
Once again, FLE is slightly correlated with proficiency gains. This correlation is not statistically significant, whereas FLCA did not show a correlation with proficiency gains.

This experiment does not include qualitative data.


This chapter is devoted to the discussion of the results in Chapter 4. It is divided by theme and includes the following sections:

### 5.1 Attitudes and their relationship with enrollment

### 5.2 Classroom emotions and instructors

5.3 Ideal Self and Ought-to Self motivation relationship with emotions and outcomes

### 5.4 Relationship between classroom emotions and outcomes

The information outlined in the literature review is contrasted with the results of the analyses of both the quantitative and qualitative data to argue whether previously existing research is confirmed or not among these subjects. For any arising theme lacking precedent, possible explanations are outlined based on the data analyses.

### 5.1 Attitudes and their relationship with enrollment

This experiment was inspired by the need to better understand the reasons behind the crisis in enrollment in Spanish programs in general in the U.S., particularly at the community college level. Even though general enrollment in American community colleges and in Spanish L2 programs are both widely tracked, there is a scarcity of research attempting to explain the reasons behind this decline (Wesely, 2012; Colburn, 2018). Some of the most relevant research, in fact, is devoted to explaining the unprecedented increase in enrollment in language programs that preceded the current period of attrition, which has seen L2 enrollment in community colleges decrease by $15.9 \%$ in the 2013-2019 period (Looney \& Lusin, 2019). Those studying general enrollment trends at both two-year and four-year institutions are important as well (Juszkiewicz, 2017 \& Ma \& Baum, 2016).

The intention of the experiment was not to fully explain enrollment trends in the Spanish program at ChSCC , nor was it to implement the complex models accounting for external variables affecting enrollment and persistence in the current literature. Instead, it was to identify the influence of students' attitudes in the decision to enroll in such a program or not, beyond the L2 requirement included in the study plans of some degrees in the TBR system, to which ChSCC belongs. ATS and ATH were selected as variable due to the study by Acheson et al. (2015), concluding they both had an impact on motivation and
success for Spanish LX students in Northern Georgia, within ChSCC's service area. This same paper indicates institutions and faculty can influence these attitudes, hence the interest in this particular variable. The analyses performed on the data collected support the proposed hypothesis, as those students' attitudes seem to have a significant impact on the decision to enroll in Spanish 1010.

Before this study, the general understanding at ChSCC was that students enroll in Spanish when it is required by their degree plan, and they do not enroll when it is not required. That said, the requirement to complete foreign language credits in TBR conferred degrees does play an obvious factor on the decision to enroll. To clarify the role of the requirement in enrollment, the following statement was presented as a Likert scale item to all subjects in the first quantitative survey: "I am taking Spanish only because it is a requirement for my degree". Here is the distribution of responses:

1. I am taking Spanish in college only because it is a requirement for my degree.

| Strongly <br> agree | Agree | Neutral | Disagree | Strongly <br> disagree |
| :--- | :--- | :--- | :--- | :--- |
| 20 | 14 | 12 | 12 | 12 |

Chart 5.1 Responses to item 1 in the first survey
$48.6 \%$ of respondents either agreed or strongly agreed to the statement above; $34.3 \%$ disagreed or strongly disagreed; $17.1 \%$ remained neutral. The average score was 3.25 . The average response was 3 . The standard deviation was a significant 1.46. The averages are 3.15 for those students that did not persist and enroll in Spanish 1020, and 3.35 for those who did. A Chi-square test of these two groups brought back the following results:

|  | Students who persisted <br> $(38)$ | Students who did not <br> persist (32) |
| :--- | :--- | :--- |
| Enrolled, mostly due to the <br> requirement (39) | 23 | 16 |
| Enrolled, mostly due to personal <br> reasons (31) | 15 | 16 |
| Chi-square | $\mathbf{X}^{\mathbf{2}=\mathbf{0 . 7 8}}$ | $\mathbf{p = . 3 7 7 1}$ |

Chart 5.2 Chi-square test exploring the relationship between foreign language requirements at ChSCC and persistence in the Spanish program

Enrolling mostly due to the requirement or due to personal reasons did not have a particular impact on persistence. In addition, the total number of subjects who enrolled due to personal reasons is large enough that it justifies exploring other factors that may be influencing the reasons why such a significant number of subjects followed that pathway.

The impact of the requirement on enrollment was further explored through the responses collected in the qualitative portion of the study. Five of these nine subjects indicated Spanish was a requirement for their degree, while four of them enrolled in both semesters of Spanish despite the lack of such a requirement. However, even those who were completing studies that required an L2 class indicated that was not the only reason they enrolled (for example, as previously mentioned, they could have switched their AA major to an AS major and thereby circumvented the requirement). Here are examples of how these subjects verbalized the impact the requirement had on their decision to enroll:

Spanish is not a requirement for my degree at ChSCC , but it is at Bryan College. When I settled on transferring there, I decided to take Spanish while at Chatt State... But I would still probably take Spanish even if Bryan College would not require it, because I just really enjoy learning it.

White Mare, Interview 2

Spanish is a requirement for my degree, AA of English, TTP. I need to take four semesters of a foreign language for it. I would have taken Spanish even if offered an "easier" alternative, because Spanish is important for my future plans. Even though I was afraid of taking it at first, and early on I may have taken a different pathway, I am glad now I decided to enroll, nonetheless. Brown Lion, Interview 2

I found out about Spanish being a requirement for graduation when I was in 9th grade. But even if I was offered an easier alternative to Spanish to graduate, I'd still rather take Spanish.

Burgundy Hedgehog, Interview 2

I am a communications major, and foreign language is required for my major. I found out about this before my first semester, at registration. But I think now it was a good thing. If Spanish would not have been a requirement during my first semester in college, it is likely I would have not taken it. But once I did, I have come to decide I wanted to learn it no matter what... This is not to say, I would have ignored Spanish altogether: if not required, I may have tried to learn it outside of the class, but now I am glad I did enroll and I plan to continue taking more courses.

Magenta Bear, Interview 2
Out of the five subjects who declared Spanish fulfilled an academic requirement, Brass Sheep was the only one who did not moderate this fact by bringing up he would have still tried to engage with the language despite the requirement.

As per the subjects who did not have a language requirement, this is how they explained the fact they enrolled anyway:

I do not think Spanish is a requirement for my degree. Taking it is just a significant bonus for me. My major is secondary education and I feel like it can really benefit me.

White Goat, Interview 2

I do not know if Spanish is a requirement for my degree or not. My major is nursing. [The interviewer then informed her that Spanish is not required as part of the nursing major.] Oh, okay. Well... I am just taking it for taking it. Brown Hippo, Interview 2

Spanish is not a requirement for my degree, culinary arts. I am taking it just because I want to be fluent in the language.

Green Kangaroo, Interview 2

As we can see, the requirement is a factor, but far from the only one at a play when deciding to enroll in Spanish 1010 at ChSCC. It must be remembered that every degree pathway in the TBR system requiring completing any language studies (associate degrees of arts), has an alternative that waives such requirement (and associate degrees of sciences in the same area). This relativizes the weight of the requirement on the reasons for students to enroll. Qualitative data indicates the requirement is obviously a driver-or a deterrent, in its absence-for enrollment, but it does not have a significant impact on persistence, nor does it singlehandedly explain the decision to enroll.

The rest of the chapter will be devoted to the impact of students' ATS and ATH on that decision. The purpose in singling out these attitudes is so that ChSCC can intervene as an institution by encouraging faculty to incorporate global and cultural awareness assignments that increase empathy and cultural awareness, as well as funding and offering
co-curricular opportunities in the same areas. Acheson et al. (2015) concluded these kinds of interventions had a positive impact on ATS and ATH among high school pupils in Northern Georgia, which is within the service area of ChSCC. If the data support that correlation, ChSCC would have multiple reasons to implement these interventions: to fulfill one of its ISLOs, and to increase students' willingness to enroll in its Spanish program. In addition, it is also an ethical imperative to counter the negative perception towards Hispanics among our campus community, among other reasons because, as of today, nearly $10 \%$ of ChSCC's total student enrollment belongs to this group.

The experimental group ( 70 of the 72 students who enrolled in Spanish 1010) was compared with a random sample of 61 students who declared no intention to ever enroll in a Spanish 1010 class at ChSCC. The former obtained a 4.16 average, 0.63 standard deviation in ATS, and 4.13 average, 0.52 standard deviation in ATH, whereas the latter scored 3.63/0.67 and 3.53/0.68, respectively. Chi-square and Fisher's exact tests were run to see if there is a difference. The following results were obtained comparing the control group and experimental group:

- ATS:
- Chi-square: $\mathrm{X}^{2}=6.8645, \mathrm{p}=.0088$
- Fisher's exact: $\mathrm{p}=.0124$
- ATH:
- Chi-square: $\mathrm{X}^{2}=11.466, \mathrm{p}<.001$
- Fisher's exact: p < . 001

These data indicate both attitudes have a statistically significant relationship with subjects' decisions to enroll in Spanish. Moreover, ATH is significantly more relevant than ATS, which shows the importance of the sociopolitical perception of this community of speakers on the potential decision to enroll.

To further explain this relationship, a logistic regression was run, producing the data in chart 5.3:

| Variable | Coefficient | Standard Error | $p$-value | Odds Ratio | $95 \%$ Confidence Interval |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| ATS | 1.2104 | 0.3038 | $<.001$ | $\mathbf{3 . 3 5 4 7}$ | $(1.8496,6.0846)$ |
| Constant | -4.5907 | 1.2021 | $<.001$ |  |  |
| ATH | 1.7085 | 0.3719 | $\mathbf{< . 0 0 1}$ | $\mathbf{5 . 5 1 9 0}$ | $(2.6625,11.4403)$ |
| Constant | -6.4638 | 1.4598 | $<.001$ |  |  |

Chart 5.3 Logistic regression exploring the relationship between ATS-ATH and decision to enroll in Spanish 1010
This regression confirms the impact of this variable on the decision to enroll in Spanish, but it also upholds the superior explanatory power of ATH, with an odds ratio of 5.5190compared to 3.3547 for ATS. The point deserves to be reemphasized that having a positive perception of Hispanics in the U.S. seems to be an effective factor predicting the decision to enroll in a Spanish language course at ChSCC. Gardner's SEM role given to attitudes towards speakers of a language (integrative motivation) can help explain the importance of this attitude on enrollment. In a recent formulation, Taie and Afshari (2015) establish the emotional component of this model by conceptualizing language not just as a skill, or a cognitive set of skills that can be learned, but rather, as a behavioral aspect that is associated with a clearly perceived sociolinguistic community. This matches the perception all qualitative subjects share when discussing Spanish and its speakers in this dissertation's research.

Since Gardner (2000) and Acheson et al. (2015) indicate faculty and institutions can have an impact on students' ATS-ATH, it can be inferred that a positive impact on those attitudes can also positively influence enrollment. As indicated in the literature review, the social focus on motivation has been surpassed in the field by cognitive-situated and process-oriented approaches, illustrated by the increasing focus of global English as the most learned language on the planet. However, the unique sociolinguistic situation of college level Spanish at ChSCC makes a social perspective on enrollment and motivation uniquely relevant. Dörnyei and Ushioda (2017), prominent proponents of the L2MSSthe chief model in contemporary SLA motivation studies, admitted themselves that the L2MSS is mostly focused on English learners' individual factors, while neglecting the impact of social ones on the decision to begin learning a language.

More insight on these quantitative results comes from the analysis of the students' testimonies collected in the qualitative portion of the study. Here is a summary of those insights:

## Explicit factors that influence a subject's decision to enroll:

- Spanish was a degree requirement (already presented)
- Using Spanish in their current or future career
- Love for the language and/or Hispanics and their culture
- Perception of Spanish as an instrument of deliverance from cultural isolation
- Growing Hispanic presence in the tri-state area
- Learning Spanish will help while studying abroad
- Many of my non-Hispanic friends and/or relatives dislike Spanish (both an encouragement and a deterrent)
- Spanish is a difficult subject (deterrent)


## External factors that have influenced a positive attitude towards the language:

- Spanish-speaking friends or relatives
- Friends or relatives reporting a positive experience learning Spanish
- Subjects themselves reporting a previous positive experience learning Spanish
- Love for Hispanics promotes love for the language, and vice versa

External factors that have influenced a positive attitude towards Hispanics:

- Spanish-speaking friends or relatives
- Positive interactions with Spanish speakers while traveling
- Positive interactions with Spanish speakers at the workplace
- Sympathy for Hispanic migrants as a reaction to existing negative narratives about that collective
- Love for the language promotes love for Hispanics, and vice versa


### 5.1.1 Explicit factors that influence subjects' decisions to enroll

## Using Spanish in their current or future career:

During high school, I had a small job at Wendy's, where mostly truck drivers and travelers stopped at. One day, our cashiers had trouble trying to understand what a Latino-American was trying to say. I had the opportunity to communicate with them in Spanish and get them what they wanted correctly. Being able to do this in such a small amount of time studying the language felt empowering to me. It made me want to learn the language more than ever. That is when I decided that I wanted to become fluent in the language

Brown Hippo, Reflection

The other day my mom was at work. And she had some people there who speak Spanish, and she called and said, "[Brown Hippo], do you want to speak Spanish with these people?" and I said "No", and she was like, "What?". And I said in disbelief, "you want me to speak Spanish?" and she said, "Yeah!" So, one of the guys got on the phone, and she said some basic things I could understand, and I said to myself, "I am awesome!"

Brown Hippo, Interview 1

Just a couple of weeks ago, I had a woman come up to me and ask for some help wording her business cards. They were for her bakery, and she decided last minute that she wanted the wording on her cards to be in Spanish. So, we went through and translated the card, only needing to update six or seven
words. She was speaking to her son in Spanish, and he was working with me on the wording. The interaction was fulfilling for me because I found myself understanding the gist of what she was saying, so we had a relatively easy time getting the card fixed.

Magenta Bear, Reflection

I recently had an opportunity to use Spanish at work. This woman came in and she was making business cards in Spanish for her bakery. So I had to help her figure out what to put on the card. It was helpful for me to be familiar with the language. Helped me feel good, confident. Similar things have happened 3 or 4 times.

## Magenta Bear, Interview 1

I had never used the language with people, other than practicing with my sisters...until recently, in which working at a restaurant, someone ordered by Google translating from Spanish. Her pronunciation in English was not understandable, but I could ask her about the ingredients in Spanish and successfully serve her.

## Green Kangaroo, Interview 1

I want to be a psychologist, and I think Spanish could be important for my profession. Probably, whatever job I have I will interact with people, so it will be possible I interact with Spanish speakers.

Gray Lion, Interview 1

If I learn Spanish, I can teach abroad. If I am fluent, or at least familiar with Spanish, I would be qualified for more things, like jobs that require bilingual skills. Any job really has a demand for that. And most everyone here speaks English, but Spanish helps too. I would also have options to travel more and do more things, without limitations.

Brown Lion, Interview 1

I believe there is a huge need for counselors and educators who are bilingual, particularly to attend the needs of Spanish speaking undocumented children separated from their parents who end up being part of the foster care system. I want to learn Spanish because, one: as an educator, I am likely working with people in these circumstances. Two: I plan to adopt children in the future, and I may end up being the parent of a child in that situation.

White Goat, Interview 1

## Love for the language and/or Hispanics and their culture:

My two Spanish classes at ChSCC do not count towards my degree and I enrolled in them because I do sincerely want to learn it as a language. I just love everything about it.

Green Kangaroo, Reflection

When I was accepted in the Honors program, I met with my advisor. There was a list of classes that were offered as Honors and one of them was

SPAN1010. I saw it and decided I wanted to take it because I like Spanish. I like it because it's fun, and enjoyable.

Gray Lion, Interview 2

I hear Spanish all the time, and I enjoy it a lot.

White Mare, Interview 2

## Perception of Spanish as an instrument of deliverance from cultural isolation:

Being a successful learner of Spanish would change everything for me. I feel like I would be siloed forever in this country, in the South, if I don't learn Spanish.

## Brown Lion, Interview 1

Most people in my circle don't speak Spanish, but I find it really cool. I like how special it makes me feel. I told my parents I was going to take Spanish in college, and they were like, why? [She imitates a mocking facial expression]. And I was like, "because I want to," and they said, "well, that's... weird. Nobody around here knows it and stuff." And I answered, "I am not going to be around here forever... And I enjoy it, and I am paying for it. So, it is going to happen."

Brown Hippo, Interview 1

Another reason to learn Spanish is to connect culturally. It all goes back to me travelling for the first time last year, to Thailand. This seeing the world
outside of the US, which is huge for me. America is very nationalistic, to the extreme, and there is not a lot of exposure to other cultures, and I do not want that with me. Also, I want to go into news media, and I feel learning another language will be useful for me.

Magenta Bear, Interview 1

## Growing Hispanic presence in the area as a reason to learn Spanish:

I think I have to speak Spanish because I am coming to understand how important it is, as there is a big part of the country that is Latino and being able to learn the language to communicate with them, it's really important, I think. From a personal perspective, my boyfriend's family does speak Spanish, and I want to get better at communicating with them.

White Mare, Interview 1

TN has become very diverse, with large numbers of seasonal workers of Latino descent in the Dayton area [where she is from], so learning Spanish is fundamental here, despite its distance to any international borders.

White Goat, Interview 2

Spanish speakers are one of the largest groups of employees in the restaurant industry. I need Spanish for this. Also, I love traveling, and learning languages in order to do this better is fundamental.

Green Kangaroo, Interview 1

I believe since so many people speak Spanish, I would miss out on things if I do not learn it.

Gray Lion, Interview 2

## Learning Spanish will help while studying abroad:

I am travelling to Spain to study abroad this summer to put me in a situation in which I have to use Spanish daily. Whether I like it or not. I am really excited about the prospect of staying with a family while there. I want to see how daily life is different, communication, housing, transportation. All of it is going to be a lot different than it is here. I want to have authentic experiences and talk to common people. I want to get better insight from something, and I feel more tourism just implies getting on the surface.

Brown Lion, Interview 1

I am super excited about going to study abroad in Spain. I am afraid of not being able to communicate, but hey, it's all about throwing yourself in there. I am already working on my own phrase notebook. And I love the idea there is no choice: I have to use the language since I am staying with a family. I want to take another class when I return and complete four semesters of Spanish while at college.

Magenta Bear, Interview 1

# Many of my non-Hispanic friends and/or relatives dislike Spanish (both an encouragement and a deterrent to enroll): 

People do not appreciate Spanish around here. Definitely not. Particularly in my high school. There, most people saw it as a burden: "Here comes Spanish! Ready to Google Translate this whole semester!"

White Goat, Interview 2

Most kids my age don't like to be told what to do, particularly when it comes down to things that are out of their comfort zone. So, when you tell them to go learn a new language, they don't like it. They are intimidated, and do not have motivational drive. This same thing happened to me at first, but since I saw it coming, since 7th or 8th grade, I wasn't completely blindsided. It wasn't as bad, but overall, I am more open minded than my school peers. My middle school classmates absolutely hated it. I personally tried not to hate it to avoid making myself miserable.

Brass Sheep, Interview 2

Look, my family. I am going to be the first one who is college educated. My mom does not know any other language and, as far as I know, never has had any interest in learning any. And my dad just has a high school diploma. So, he thinks I am wasting my time.

Brown Lion, Interview 2

My dad says that this is not Mexico, and it's far from it, so there is no need to learn Spanish. He is so annoying! [She says while covering her face with both
hands.] [...] And no, my family...they...most of my family keep questioning it [her decision to learn Spanish]. "Why do you want to learn another language? This is America. They should learn English." I don't think the point here is that. It is very frustrating. Just thinking about it makes me angry. And they are not even willing to hear my arguments about it. Some of my distant relatives are the kind of people that would scream "Speak English!" if they overhear someone speaking in another language in public. Some friends kind of think it is important to learn Spanish. I'd say $30 \%$ of them say it is cool and $70 \%$ say "Ew! Why are you doing that?"

Brown Hippo, interview 2

## Spanish is a difficult subject (deterrent):

The first class I took in high school was hard, though, and that turned me away from the language for a few years. I was about not to enroll in Spanish 1010 at ChSCC.

Burgundy Hedgehog, Interview 1
5.1.2 External factors that have influenced a positive attitude towards the language

## Spanish-speaking friends or relatives:

I have friends who speak Spanish, and I love that. When they speak Spanish, it is kind of annoying because I don't understand everything, but at the same time it is practice for me. [...] I did not have Spanish speaking friends when

I began learning Spanish, so I do not think friends were a factor in making my initial decision to learn the language. However, moving forward, it has been, as I think it is helping me fit in better with them. I am more motivated than then.

## Gray Lion, Interview 2

Before just recently, I didn't personally know anyone else who spoke Spanish, but since I came to Chatt State, I made my first two Spanishspeaking friends. Now I sometimes speak in Spanish to my roommate, who can't speak Spanish at all. A funny way of practice!

White Goat, Interview 1

Knowing Latinos personally has influenced my desire to learn the language. White Mare, Interview 2

When I was younger, I had very little contact with anyone who spoke Spanish fluently. I was unable to practice outside of the small amounts of Spanish classroom work for this reason. However, now I am in constant personal contact with those who speak Spanish on a regular basis. Which leads me to my next point. I have been so blessed with an amazing boyfriend and his parents who have helped guide me through my language learning process. They are all Puerto Rican and have been so kind to teach me new words, help me understand sentence structure and to ultimately help me practice my aural ability as well as my spoken ability.

White Mare, Reflection

For sure, meeting Latinos and knowing more about them has made me want to learn their language more.

## Brown Lion, Interview 2

I really enjoy meeting people who speak other languages [she says emphatically] and having an opportunity to listen to people speaking Spanish.

I often do from Mexicans and Guatemalans in the area.
Green Kangaroo, Interview 2

I have extended family who speaks it, so I'd like to speak it too.
Green Kangaroo, Reflection

## Friends or relatives reporting a positive experience learning Spanish:

I made new friends in my Spanish class now, and these are the first friends I have who are also learning Spanish. I only knew one before, and he was the one who recommended me taking Spanish classes at ChSCC very strongly. It is one of the main reasons why I did it.

Magenta Bear, Interview 2

Several factors pushed me to try my hand at learning again when I came to college. My uncle had been learning from his boyfriend (a fluent speaker) and eventually convinced me to try again. One of the most memorable things he would do was send me paragraphs of things he thought were inspiring or great "food for thought" written entirely in Spanish, and when they both came down to visit, seeing them converse with each other and with several waitresses and such in Spanish just seemed incredibly fascinating to me. I wanted to be able
to have similar talks with them (and admittedly make my favorite uncles proud) so I chose to pick up Spanish classes again once I enrolled in ChSCC. White Goat, Reflection

My brother is the one responsible for me taking a year of Spanish at ChSCC. He encouraged me, told me he was having a good time, and that helped me make the decision to take the class.

Burgundy Hedgehog, Reflection

## Subjects themselves reporting a previous positive experience learning Spanish:

Before then, I had an idea about Spanish, but I was really nervous about it. It seemed like it was going to be very difficult. But then I took it and it wasn't that difficult. It was amazing [emphatically]. It was mainly so due to my teacher. She was just amazing. She always put forth the extra effort to help me understand whatever was giving me trouble. She always gave good feedback and she made me comfortable. And that comfort allowed me to get better quick, and now I am really comfortable using the language at the beginner level.

Brown Hippo, Interview 1

Mrs. F was the most fluent of the Spanish teachers and was well on her way to becoming head of the Spanish department. She was very kind and ready to help students whenever need be, and I was very excited to learn by her teaching.

White Goat, Reflection

## Love for Hispanics promotes love for the language, and vice versa:

From this point on, I have always loved the language. Now, more than ever, I have become intrigued with learning more about the native speakers of the language, along with the culture and traditions. I wish to finish my "Spanish career" within the next few years and become fluent in the language.

Brown Hippo, Reflection

I chose to take Spanish in 8th grade. I was excited for it [nodding assertively]. I wanted to learn Spanish because I had decided it was important to learn a second language. That's what everyone says. For job opportunities and because there are a lot of Spanish-speaking people. Right now, I still have the same reasons. I still believe it is important to learn a second language, especially Spanish, particularly now that I have Spanish-speaking friends. Gray Lion, Interview 1

But the true reason why I took it was my uncle. He came down to TN with his boyfriend, a native speaker of Spanish. And it was really impressive to see him, the whitest Californian guy, being proficient in Spanish. He is my favorite part of the family and has supported my education a lot, and, I don't
know, seeing them communicate like that makes me really want it. Spanish is a way to communicate with people, but also a way to bond with them.

## White Goat 26

### 5.1.3 External factors that have influenced a positive attitude towards Hispanics

Spanish speaking friends or relatives and positive interactions with Spanish speakers at the workplace belong in both factors 2 and 3, but the quotes are the same, so they will not be reproduced in this section again.

## Positive interactions with Spanish speakers while traveling:

It was with them that I traveled out of the US for the first time. We went to Aruba in May 2013. This experience opened my eyes to the world around me. I enjoyed every second of culture, language, and terrain I could take in while we were there. I heard more Spanish spoken than I ever had in my life. [...] Fast forward a couple years, we got married in June 2015 and went to the Dominican Republic for our honeymoon. This was another eye-opening moment for me. We saw poorer areas and a different mood in this country than we had in Aruba. It was just as exciting with ziplining, discovering what a cenote is and swimming in it, and scuba diving again. This time on our scuba diving trip, our guide spoke Spanish as opposed to our guide in Aruba. We went on a catamaran trip as well where our guides spoke Spanish. I will never forget how we rode on a bus to the excursion meetup and the two of us were the only people that spoke English. We were surrounded by other people speaking Portuguese and German. We all had a good laugh when we could all understand the word "Ford" from a vehicle that was stuck on the side of
the road. It was during this bus ride and the excursions of diving, snorkeling, and sailing on a catamaran that I became convinced I needed to learn Spanish. Brown Lion, Reflection

This change is due to two things: first was my first trip abroad, last year, in which I was culture-shocked and realized how frustrating it is not being able to communicate with people in my first language for the first time. Also, my dad met his wife, whose first language is not English. Seeing her having to learn English has inspired me to try to learn another language myself. Magenta Bear, Interview 1

## Sympathy for Hispanic migrants as a reaction to existing negative narratives about that collective:

I reject those negative stereotypes, and I believe they are propagated by people who dislike foreigners and want to keep them away. Thanks to my friendship with Spanish speakers, I am aware of how foreign-born Latinos need to work harder to get a college education. I do not think assimilation should be a priority for Latinos, and I would like to have more Latino friends because they are cool.

Gray Lion, Interview 2

I have a generally positive view of Latinos in the US. However, I believe an important number of Latinos are undocumented-or that is what people say.
"All these people are here illegally, taking our jobs"- I do not agree with those comments, but I am aware they are part of the public discourse.

White Mare, Interview 2

I reject negative stereotypes, by principle. I do not generalize liberally. Even though I was raised very religious, I am not a religious person: I think critically, and do not take ideas from the environment without giving it some thought. I believe Latinos are generally more hardworking, which is a generalization, but given the toughness of the immigrant experience, plus the pressures foreign-born immigrants experience in Southern society, it is one that makes sense. Latinos must be hard working, otherwise they would crumble before the pressure of working minimum wage jobs while surviving all those difficulties. I believe the news fuels negativity around Latino immigration. I also believe the problem in the US is not immigration per se, but the reaction to it expressed by native residents.

White goat, Interview 2

I believe Latinos are a positive contribution to America. I think of America as a blend of many cultures and the more different cultures form part of that mix, the more enriched the country becomes. Since we are all part of this melting pot, why would you discriminate against a particular part of it? I do not believe negative stereotypes for Latinos as a group, but I do admit the positive stereotype of hardworking, due to the large presence of Latinos in constructions crews in Chattanooga. I think a lot of the negative narratives
are politically motivated, but it is important for me not to be narrow-minded, so I try to stay informed and be empathetic. As per my friends, I think most of them just parrot what their parents say. I sometimes clash with mine because I have my own opinion.

## Brass Sheep, Interview 2

I do not buy those negative stereotypes...I don't know why I would think that! [She says emphatically]. [When asked if she believes most Latinos in America are insincere, she answers:] Oh my god, not at all. I have a distant relative who is from Mexico, and he works all the time... then all the money he makes is spent in our area... How's he not a net benefit for our society? He is also a great person.

## Brown Lion, Interview 2

I do not believe all the negative stereotypes about Latinos. The Latinos that I know, and the depiction offered by my Spanish high school teacher helped me forge a positive picture of them. Blaming Hispanics for problems here is absurd. Our problems have roots in our society, and people often like blaming "others" for our problems, as a scapegoat. I like watching documentaries and news stories to get my own information. Hearing people say Latinos are a burden for the US economy enrages me, because people pretend Latinos are taking all the advantages, whereas the reality is most of them are working in farming or construction to send money to their homes.

Based on my personal experience and on the need to avoid judging groups by the bad actions of a few, I do not believe in those negative stereotypes. I have heard Latinos are a burden to the US economy, but I do not share that opinion. I have heard it on the news. A lot of news stations have a slant that way, and they can influence how people think.

## Burgundy Hedgehog, Interview 2

I refuse to use epithets to judge ethnic categories. For that, I reject the media's association between immigration and crime, and believe Latinos are more hardworking than other groups. All my lazy coworkers are non-Hispanic. Someone who has gone to great lengths to make it from Central America to Tennessee is likely to put more effort than average in their work. I do not think Latinos are a burden to the US economy, as they do the jobs that most people reject.

## Green Kangaroo, Interview 2

I hate how the news pushes narratives that reinforce negative stereotypes. But I do agree with the positive stereotype of Latinos as hardworking. I get most of my information through social media and online sources, but I do not really have a lot of direct experience. There is a political divide in Latino perceptions in America: conservatives echo negative portraits, whereas liberals highlight positives. I personally think Latino immigration makes America a better place, mostly because it challenges that nationalistic attitude
which, I can understand, but I do not share. Diversification enriches American society.

## Magenta Bear, Interview 2

### 5.1.4 Analysis

Combining information collected from the statistical analyses of the quantitative data, and the themes that arose from the qualitative, it seems clear that, along with graduation requirements, positive ATS and ATH play a significant role in the decisions to enroll in a first Spanish course at ChSCC. Other factors contributing to this decision seem to be the expectation of using Spanish professionally, a desire to study abroad, the perceived need to learn Spanish in the face of the increasing presence of Hispanics in the U.S., and the opportunity Spanish provides to ease the general feeling of cultural isolation in East Tennessee. Factors that deter enrollment in Spanish 1010 are its perceived difficulty as a college subject and, peculiarly, the negative perception of Spanish by a significant amount of the subjects' friends and relatives, as this seems to deter some, but encourage others.

ATS and ATH seem to be influenced by external elements such as friends and relatives who either are Hispanic or have a positive perception of Spanish and Hispanics. Positive academic experiences with Spanish and pleasant interactions with Hispanics while traveling or at work have contributed to these positive perceptions as well. Finally, one factor echoed by all subjects is the awareness of a current of anti-Hispanic sentiment in their social circles, and their personal resistance to such a current. This resistance results in a sociopolitical sympathy for Hispanics, which along with the development of benign perceptions of Hispanic immigration, seems to be crucial to engendering positive attitudes in these subjects. Based on the data analyses and on insights from Acheson et al. (2015), Cochran et al. (2010), De Smet et al. (2018), Gardner (2000), Hernández (2010), and MacIntyre and Mercer (2014), fostering a positive perception of Hispanic immigration and providing the ChSCC campus community with cultural empathy training and academic knowledge of diversity could enable other students to moderate the influence of these negative perceptions that have become ingrained in this region. This change in
perspective could have, among other positive effects, an increase in enrollment in the Spanish program at ChSCC.

Hernandez (2010) was the first to connect ATS-ATH and the desire to stay in a Spanish university program beyond requirement, and he acknowledges the importance of including instructional activities that contribute to increasing integrativeness and improving attitudes. Cochran et al (2010) were also surprised to discover attitudes correlated with outcomes more positively than with attributions. These insights found confirmation in the current study, which also outlines a significant correlation between positive integrative attitudes and the desire to enroll in a second language course.

As MacIntyre and Mercer (2014) indicated, institutions should have a role in developing positive emotions and attitudes to allow individuals in them to flourish and achieve positive outcomes. They believe such outcomes can be facilitated by espousing positive psychology-inspired training and interventions. Furthermore, Acheson et al. (2015) arrived at insights that introducing global and cultural awareness curricula in language classes supported the development of positive ATS-ATH, with a subsequent increase in learners' motivation.

To conclude, I propose ChSCC sponsor global and cultural awareness interventions focused on developing intercultural empathy throughout its campus community. These interventions will be beneficial to fulfill the institution's global and cultural awareness ISLO, but also will improve ATS-ATH, favoring a more robust enrollment in the Spanish program, fostering better outcomes for students already enrolled in it, and contributing to a better sense of belonging for the college's growing Hispanic student body.

### 5.2 Instructor impact on classroom emotions

Since MacIntyre and Gregersen (2012) connected the broaden-and-build PP theory with the effect of positive as well as negative emotions experienced in the SLA classroom, many studies have been able to explore relationships between these emotions, sources of motivation, and student outcomes. One fundamental aspect unveiled by this extensive research is these classroom emotions appear to be semi-controllable, as they are
susceptible to external input. The paper referenced above, for instance, states teachers can influence students' emotions by appealing to their imaginations through the tasks completed in class and their demeanor when delivering content and relating to students inside and outside the classroom. MacIntyre and Gregersen (2012) also indicate that whether teachers can help foster positive emotions in students is rooted in their ability to cultivate a synergy between individual resiliency and a positive classroom community. The best strategies to promote this are fostering interpersonal closeness, playing a role in team building, and modeling positive discourse and attitudes. They can also model strategies to curb negative emotions, such as avoiding negativity, disapproval, sarcasm, and criticism.

Since then, teachers have been recognized as the central figure when it comes to fostering positive emotions and aiding in the management of negative ones in the SLA classroom. Early PP-inspired empirical studies, such as Dewaele and MacIntyre (2014), Gregersen et al. (2014), or Oxford and Cuéllar (2014) helped expand the general paradigm of PP in SLA and continued to highlight the important role of instructors in these emotive experiences. This role is central in successive studies, such as Dewaele and MacIntyre (2016), which indicates both teachers and peers share the responsibility for promoting FLE. The measurement of the role of the teacher in influencing classroom emotions used in this dissertation's research was first conceptualized in Dewaele and Dewaele (2017). FLE and FLCA were compared with learner-internal and teacher-centered variables. They confirm effective teachers can fuel learners' enjoyment but have limited impact on FLCA. Therefore, they invite instructors to ignore the latter in order to focus on fostering FLE.

Similar studies such as Dewaele et al. (2017) confirm these findings and make more specific claims. They found a positive relationship between FLE and having a positive attitude towards the teacher, which is predictable considering the extensive existing research linking teacher perception, heightened motivation, and better academic results. They also found no clear relationship between attitudes towards the instructor and FLCA, which elicits multiple relevant conclusions: firstly, that FLCA relies more heavily on internal variables and peer relationships; secondly, the performance of well-liked teacher performance in the classroom is likely to elicit FLCA. Finally, they discovered greater
use of the target language in the classroom-on the part of both subjects and teachersis linked to increased FLE, but not necessarily to more FLCA.

Dewaele and MacIntyre (2019) reiterate the findings indicated above. This macro study connects classroom emotions with learner-internal and external variables from learners of global English around the world. They concluded, among other things, that a good teacher in this context is somebody who can create a positive climate in the classroom, where learners are gently encouraged to participate, play, and experiment with the FL with little fear of stinging ridicule. Several participants did point out that harsh correction or mockery by the teacher in front of peers boosted their FLCA and silenced them, which had the effect of lowering both their self-confidence and self-esteem. Encouragement from the teacher and peers, typically during a challenging task such as public presentation, helped participants deal with their FLCA.

Finally, another important paper of reference is Dewaele et al. (2019b), who focus specifically on exploring the relationship between FLE, FLCA, and teacher-centered variables in students of global English in Spain. Their results are not dissimilar to those mentioned above. Age, friendliness, and use of the target language correlated positively with FLE, while strictness and accentedness were negatively correlated. The authors highlight how teacher classroom behavior is the most important variable of all, as it is the only one under the teacher's control. They also characterize the ideal teacher as friendly, not overly strict, and able to create a positive atmosphere in the class.

This research was an opportunity to explore whether these same findings apply to American English L1 students of Spanish L2 at ChSCC. The results replicated many of them, although there were a few differences that could be attributed to the unique context of this study, and the relatively small number of subjects participating in it. This is what the data say:

First, there was an interest in comparing the average scores of subjects for each one of the emotional dimensions defined in the study, and how these scores differed from those obtained in previous research. Chart 5.4 reflects these data:

| Study | Subjects | FLSE | FLPE | FLCA |
| :--- | :--- | :--- | :--- | :--- |
| This dissertation | American community <br> college students of <br> Spanish L2 | 4.12 | 3.94 | 3.21 |
| Dewaele et al. <br> (2019b) | Spanish EOI students <br> of English L2 | $4.08 / 3.76^{* *}$ | $4.08 / 3.76^{* *}$ | $2.97 / 2.47^{* *}$ |
| Dewaele and <br> MacIntyre (2019) | Multinational <br> participants studying <br> different L2 languages | $3.93 / 3.7^{* * *}$ | $3.93 / 3.97^{* *}$ | $2.90 / 2.58^{* *}$ |
| Saito et al. <br> (2018) | Japanese high school <br> students of English L2 | $4.5^{*}$ | $4.5^{*}$ | 3.5 |
| Dewaele and <br> Alfawzan (2018) | British high school <br> students of French, <br> Spanish, German, and <br> other L2 languages | $3.9^{*}$ | $3.9^{*}$ | 2.4 |
| Dewaele and <br> Alfawzan (2018) | Saudi high school <br> students of English L2 | $3.4^{*}$ | $3.4^{*}$ | 2.6 |
| Dewaele and <br> MacIntyre (2014) | Multinational <br> participants studying <br> different L2 languages | $3.82^{*}$ | $3.82^{*}$ | 2.75 |

Chart 5.4: Summary of scores for classroom emotions in PP in SLA studies
*FLE scores were not disaggregated between social and private
**Scores were presented as divided by having a native speaker instructor or not (Dewaele et al., 2019b), and by gender (Dewaele \& MacIntyre, 2019)

The FLE results are startlingly similar across all studies, despite the wildly different educational and cultural contexts, ages, and subjects' L1s and L2s. There is a higher degree of variance in FLCA scores, with Saudi and British subjects scoring much lower than ChSCC or Japanese subjects. The fact that some of these macro studies found similar scores among much larger samples helps confer validity to the results obtained in this experiment, despite its relatively low number of participants.

The next step was to find the mutual relationships between these classroom emotions. Both dimensions of FLE have a strong, positive, statistically significant correlation. Meanwhile, both were negatively correlated with FLCA. These results match those of all the experiments listed in chart 5.3. The test results can be found below:

FLSE, FLPE:

- Pearson's correlation: $\mathrm{r}=.8137, \mathrm{p}<.001$
- Spearman's Rho: $\mathrm{r}_{\mathrm{s}}=.832, \mathrm{p}<.001$

FLSE, FLCA:

- Pearson's correlation: $\mathrm{r}=-.1833, \mathrm{p}=.1690$
- Spearman's Rho: $r_{s}=-.113, p=.3966$

FLPE, FLCA:

- Pearson's correlation: $\mathrm{r}=-.239, \mathrm{p}=.1520$
- Spearman's Rho: $r_{s}=-.191, p=.1519$

These results confirmed the conclusions made by studies such as Dewaele and MacIntyre (2014) and subsequent papers characterizing FLCA as a separate emotional dimension, which can occur whether enjoyment is present or not, and that cannot be defined as the absence of the latter. This is the first time these observations have also been confirmed in students of Spanish at an American community college.

To explore the impact of how different teachers' behaviors and/or perceptions affected these emotions, Chi-square and Fisher's exact tests were implemented comparing emotional outcomes with each one of the teacher-centered variables. Results are presented in chart 5.5:

| FLSE | Teacher strictness: <br> - Chi-square: $\mathrm{X}^{2}=1.3873, \mathrm{p}=.239$ <br> - Fisher's exact: $\mathrm{p}=.2882$ <br> - Pearson's: $\mathrm{r}=.107, \mathrm{p}=.424$ <br> - Spearman's Rho: $r_{s}=.1802, p=.1758$ |
| :---: | :---: |


|  | Teacher friendliness: <br> - Chi-square: $\mathrm{X}^{2}=6.7142, \mathrm{p}=.017$ <br> - Fisher's exact: $\mathrm{p}=.0172$ <br> - Pearson's: $\mathrm{r}=.470, \mathrm{p}<.001$ <br> - Spearman's Rho: $r_{s}=.4764, p<.001$ |
| :---: | :---: |
|  | Teacher's use of Spanish in the classroom: <br> - Chi-square: $\mathrm{X}^{2}=3.9017, \mathrm{p}=.048$ <br> - Fisher's exact: $p=.071$ <br> - Pearson's: $\mathrm{r}=.270, \mathrm{p}=.040$ <br> - Spearman's Rho: $\mathrm{r}_{\mathrm{s}}=.3305, \mathrm{p}=.0112$ |
|  | Teacher is caring: <br> - Chi-square: $\mathrm{X}^{2}=5.8579, \mathrm{p}=.03$ <br> - Fisher's exact: $\mathrm{p}=.0296$ <br> - Pearson's: $\mathrm{r}=.472, \mathrm{p}<.001$ <br> - Spearman's Rho: $\mathrm{r}_{\mathrm{s}}=.469, \mathrm{p}<.001$ |
|  | Teacher is helpful: <br> - Chi-square: $\mathrm{X}^{2}=18.6861, \mathrm{p}<.001$ <br> - Fisher's exact: p < . 001 <br> - Pearson's: $\mathrm{r}=.682, \mathrm{p}<.001$ <br> - Spearman's Rho: $\mathrm{r}_{\mathrm{s}}=.7077, \mathrm{p}<.001$ |
| FLPE | Teacher strictness: <br> - Chi-square: $\mathrm{X}^{2}=1.2488, \mathrm{p}=.263$ <br> - Fisher's exact: $\mathrm{p}=.3183$ <br> - Pearson's: $\mathrm{r}=-.079, \mathrm{p}=.561$ <br> - Spearman's Rho: $r_{s}=-.0492, p=.7138$ |


|  | Teacher friendliness: <br> - Chi-square: $\mathrm{X}^{2}=3.6874, \mathrm{p}=.055$ <br> - Fisher's exact: $\mathrm{p}=.0911$ <br> - Pearson's: $\mathrm{r}=.335, \mathrm{p}=.010$ <br> - Spearman's Rho: $\mathrm{r}_{\mathrm{s}}=.383, \mathrm{p}=.003$ |
| :---: | :---: |
|  | Teacher's use of Spanish in the classroom: <br> - Chi-square: $\mathrm{X}^{2}=3.9017, \mathrm{p}=.048$ <br> - Fisher's exact: $\mathrm{p}=.071$ <br> - Pearson's: $\mathrm{r}=.220, \mathrm{p}=.097$ <br> - Spearman's Rho: $\mathrm{r}_{\mathrm{s}}=.2374, \mathrm{p}=.0727$ |
|  | Teacher is caring: <br> - Chi-square: $\mathrm{X}^{2}=4.4036, \mathrm{p}=.036$ <br> - Fisher's exact: $\mathrm{p}=.0672$ <br> - Pearson's: $\mathrm{r}=.539, \mathrm{p}<.001$ <br> - Spearman's Rho: $\mathrm{r}_{\mathrm{s}}=.4931, \mathrm{p}<.001$ |
|  | Teacher is helpful: <br> - Chi-square: $\mathrm{X}^{2}=13.7622, \mathrm{p}<.001$ <br> - Fisher's exact: $\mathrm{p}<.001$ <br> - Pearson's: $\mathrm{r}=.550, \mathrm{p}<.001$ <br> - Spearman's Rho: $\mathrm{r}_{\mathrm{s}}=.6192, \mathrm{p}<.001$ |
| FLCA | Teacher strictness: <br> - Chi-square: $\mathrm{X}^{2}=0.0636, \mathrm{p}=.801$ <br> - Fisher's exact: $\mathrm{p}=1$ <br> - Pearson's: $\mathrm{r}=-.037, \mathrm{p}=.783$ <br> - Spearman's Rho: $r_{s}=-.0206, p=.8776$ |


|  | Teacher friendliness: <br> - Chi-square: $\mathrm{X}^{2}=0.6022, \mathrm{p}=.437$ <br> - Fisher's exact: $\mathrm{p}=.5416$ <br> - Pearson's: $r=-.105, p=.432$ <br> - Spearman's Rho: $\mathrm{r}_{\mathrm{s}}=-.091, \mathrm{p}=.4966$ |
| :---: | :---: |
|  | Teacher's use of Spanish in the classroom: <br> - Chi-square: $\mathrm{X}^{2}=2.9233, \mathrm{p}=.087$ <br> - Fisher's exact: $\mathrm{p}=.1133$ <br> - Pearson's: $\mathrm{r}=.162, \mathrm{p}=.230$ <br> - Spearman's Rho: $\mathrm{r}_{\mathrm{s}}=.1719, \mathrm{p}=.197$ |
|  | Teacher is caring: <br> - Chi-square: $\mathrm{X}^{2}=1.3873, \mathrm{p}=.239$ <br> - Fisher's exact: $\mathrm{p}=.1116$ <br> - Pearson's: $\mathrm{r}=-.115, \mathrm{p}=.390$ <br> - Spearman's Rho: $\mathrm{r}_{\mathrm{s}}=-.0229, \mathrm{p}=.8644$ |
|  | Teacher is helpful: <br> - Chi-square: $\mathrm{X}^{2}=4.5002, \mathrm{p}=.033$ <br> - Fisher's exact: $\mathrm{p}=.0239$ <br> - Pearson's: $\mathrm{r}=.026, \mathrm{p}=.850$ <br> - Spearman's Rho: $\mathrm{r}_{\mathrm{s}}=.0537, \mathrm{p}=.6885$ |

Chart 5.5: Classroom emotions vs teacher-centered variables
With the exception of teacher use of Spanish in the classroom and teacher helpfulness, these teacher-centered variables do not seem to influence FLCA. However, the relationship between FLCA and the former is not statistically significant. In the case of teacher's helpfulness, a significant correlation was found in the results of the Chi-square and Fisher's exact tests. However, the Pearson's and Spearman's Rho tests do not confirm this relationship, so we can conclude the former test results were an anomaly. This is not to say teachers do not have an impact on FLCA at all. The qualitative data indicates
teachers may have a negative impact on FLCA, but that they can also help moderate it by withholding anxiety generating behaviors, and practicing anxiety-moderating ones, such as giving gentle feedback, using moderate self-deprecation, etc. More insights on the way FLCA is expressed by this experiment's subjects will be explored when discussing the qualitative data.

FLE, on the other hand, is clearly correlated with most of the teacher-centered variables measured in the experiment, with the exceptions of strictness and teacher's use of Spanish in the classroom. Strictness shows no significant correlation with either type of enjoyment, while the teacher's use of Spanish in the classroom shows a significant weak correlation with FLSE, and a non-significant weak correlation with FLPE. The impact of this teacher center variable on these subjects' emotions matches that of those in Dewaele et al. (2017).

Students reporting high FLSE seem to report a very high perception of their instructors as helpful and caring, in that order of intensity. Next comes friendliness and use of Spanish in the classroom. Helpfulness is the most impactful teacher characteristic on these students' FLE. The importance of helpfulness may stem from the fear of studying languages detected in the responses of even successful students of Spanish at ChSCC. Some of these students reported a fear of a difficult general education course, such as Spanish, having a negative impact on their GPA. In addition, testimonies about uncaring, ineffective language teachers while at high school are frequent in students' qualitative narratives. This could influence the importance of helpfulness as a positive characteristic that helped improve students' potential negative expectations. This is an aspect of this study that would warrant further research able to transform these speculations into answers sustained empirically.

How does this compare with previous studies? One of the latest, more comprehensive ones, Dewaele et al. (2019b), found a moderate correlation between friendliness and FLE, a weak correlation between FL use and FLE, and no correlation with strictness. They also did not find any correlation between those variables and FLCA. These results are very similar to those obtained in previous experiments using the same instruments and in this dissertation. This would confirm that, for Spanish 1010 students at ChSCC, teachers are more effective at boosting FLE than they are at limiting FLCA. This effect is partially
under the control of the teacher, as the variables in this study can be deliberately influenced by their behavior. Even though an instructor's personality and emotional intelligence are beyond their immediate control, they can still have an impact on variables such as being perceived as helpful, friendly, or caring, and shortcomings can be overcome through training and experience. As a result, it seems that the best way to boost FLE and not worsen FLCA is to be friendly, helpful, and encourage everyone to use the target language in class while limiting pressure and harsh feedback.

MacIntyre and Mercer (2014) indicated the need to document the complexity of individual cases, a fundamental approach to learning about the processes that lead to wellbeing in the context of the classroom and beyond. Studies such as MacIntyre and Dewaele (2019) did so, by finding in qualitative data a fundamental source to better characterize classroom emotions and explore their relationship with instructor behavior.

The insights arising from the analysis of qualitative data collected for this experiment are outlined in chart 5.6:

| Effect of teacher characteristics on FLE | Kindness and helpfulness as drivers of enjoyment |
| :---: | :---: |
|  | Likeability as driver of enjoyment |
|  | Knowledgeability as driver of enjoyment |
|  | Strictness as a driver of enjoyment |
|  | Engaging classroom activities as a driver of enjoyment |
|  | Undesirable effects of unenjoyable teacher |
| Factors influencing FLCA | Teacher as moderator of anxiety |
|  | Reflections on the internal origin of FLCA |
|  | Over performing as a source of anxiety |
|  | Fear over grades as a source of anxiety |
| Effects of classroom emotions on learners | Correlation between FLCA and willingness to communicate |
|  | Positive effects of FLSE |
|  | Positive effects of FLPE |

Chart 5.6: Salient codes regarding classroom emotions from collected qualitative data
The section that follows presents some direct testimonies on each one of these insights from the subjects themselves.

### 5.2.1 Effect of teacher characteristics on FLE

## Kindness and helpfulness as drivers of enjoyment:

Mrs. F was the most fluent of the Spanish teachers and was well on her way to becoming head of the Spanish department. She was very kind and ready
to help students whenever need be, and I was very excited to learn by her teaching. [...] However, that was not the case with my next teacher. She was awful. Whether she saw that our work was utterly butchered and didn't care or she genuinely didn't realize or not, I do not know, but my time learning Spanish in high school was, as I have stated before, mind-numbing and incredibly boring. [...] My instructor at Chatt State has entirely changed that perspective. One of the things he does that I appreciate the most is approach mistakes like expected and fairly encourages things in the classroom. Mistakes are simply pointed out and corrected in the same way for each student and are used as instruments of learning. There is no ridicule, no pointed looks, no sighs-nothing of what would make me cling to my board for dear life and refuse to share my answer and or feel undiluted shame at not knowing Spanish fluently then and there (an unreasonable demand on myself).

White Goat, reflection

I walked into her classroom that same day and it was like walking into my favorite restaurant. Her name is [...], and she eventually became my favorite teacher of all time. She always greeted us with a Buenos días and a smile every single morning. Brown Hippo, reflection

Before then, I had an idea about Spanish...but I was really nervous about it. It seemed like it was going to be very difficult. But then I took it and it wasn't that difficult. It was amazing [states emphatically]. It was so mainly
due to my teacher. She was just amazing. She always put forth the extra effort to help me understand whatever was giving me trouble. She always gave good feedback and she made me comfortable. And that comfort allowed me to get better quick, and now I am really comfortable using the language at the beginner level. [Interview 2:] My professors in Chatt State are helpful and knowledgeable, and that gives me confidence in my learning. I like the balance of strictness, and bad teachers give me anxiety, so I appreciate this one does not.

Brown Hippo, interview 1

I believe my current Spanish instructor is great. He is super helpful and approachable. He uses Spanish a lot in class, and I like that, even though I really need the explanations in English. I feel like he is caring and helpful. Green Kangaroo, Interview 2

## Likeability as driver of enjoyment:

However, I found myself liking my Spanish 1020 professor more than my Spanish 1010 one (Please don't tell [them]). As this current semester progressed, I found myself enjoying the language more thanks to him. Brass Sheep, reflection

My professor... His investment in my learning process, as well as that of all his students, pushes me to work harder to learn Spanish. I expect more from myself and have surprised myself time and time again due to this. Now I
feel more confident and capable than ever that I will be able to make my language learning dream a reality.

## Brown Lion, reflection

Other factors why I would continue taking Spanish? I like my professors here in college. That helps my motivation too.

Gray Lion, interview 2

## Knowledgeability as driver of enjoyment:

Being in the classroom is enjoyable because I have a Spanish-speaking instructor who's knowledgeable and teaches me from different perspectives. I also like practicing with classmates.

Gray Lion, interview 1

## Strictness as a driver of enjoyment:

In this second class, my professor is one of the best three I have had in Chatt State. I like the classes are actually hard, so I feel I have to study more for a grade and work harder in general. A 91 in that Spanish class is worth more than a 100 in other classes.

Green Kangaroo, interview 1

## Engaging classroom activities as a driver of enjoyment:

I really, really like learning Spanish in the classroom. I love the feedback. I liked my first professor, but I like my second one better because he teaches more outside of the book, so it is a more applied learning.

White Mare, interview 1

## Undesirable effects of unenjoyable teacher:

I believe my good teacher in high school was good because the assignments she offered in class made us learn. The one in 9th grade would give exams literally copied from a provided study guide, so all that was needed to pass the class was memorizing it. It did not require any thought.

Gray Lion, interview 1

I do not believe either the high schools or the students there take Spanish seriously. My Spanish classes were not engaging at all. Students picked up the mood of the demotivated teachers who teach the language at that level. [...] However, my college Spanish professor is significantly better than my high school one: the time he puts into it, the care he puts into giving feedback gently, the lack of judgment, the familiarity in the treatment, the structure, the fact he is a native speaker, with a cultural experience he gets to share. I think it is a great bonus.

White Goat, interview 2

My current instructor has helped boost my confidence and improve my attitude towards the language a lot, and I'd say now it has come to a point
in which I want to be right, so he is proud of me. This did not happen to me early on, particularly when it is a one-on-one with him.

Brass Sheep, interview 2

### 5.2.2 Factors influencing FLCA

## Teacher as moderator of anxiety:

The worst thing about learning in the class is the anxiety. I am a very anxious person, and I am always fidgeting and avoiding eye contact. But that anxiety has diminished in this college class, as we are all put on equal terms in class. We are called out singularly evenly. We are all sharing answers at the same time, so there is no limelight, and I feel my questions are thoroughly answered, without criticism. (I felt judged when asking questions by my previous teacher and that made me withdraw).

## White Goat, interview 1

I do like we can make mistakes in the classroom, and I don't feel as nervous as I would at an everyday interaction (I feel more pressure then). I can also ask questions, and it is broken down in very clear learning goals, which helps me not get overwhelmed.

Brown Lion, interview 1

What I dislike about class the most is an activity in which we write sentences on whiteboards and show our sentences in public. Because if I write a wrong answer the professor would read the mistake aloud, and it's embarrassing. Green Kangaroo, interview 1

## Reflections on the internal origin of FLCA:

I hate feeling stupid and embarrassing myself by writing or saying something idiotic.

Green Kangaroo, reflection

The only thing that I can recall was nervousness about having to use Spanish in front of the classroom, as the teacher I had the first two years required us to perform simple skits in front of the class, and I always felt nervous about not only speaking Spanish aloud, but the performative aspect of it as well. I remember always feeling silly about it.

Magenta Bear, reflection

I do not like to be in the classroom because I do not like being wrong in front of other people. It also discourages me. Oral exams give me particular anxiety. They are the only activity with Spanish that always makes me nervous.

## Gray Lion, interview 1

I only do it [speak Spanish] with him [her native-speaker boyfriend] because it is really intimidating, still. I am scared of being judged if wrong. His mom having an accent in English though makes me wonder if those fears are real, as I do not really mind about it. But it is not enough for them to go away. White Mare, interview 1

I am also very nervous about timed activities. I usually need more time to process things than most people, and feeling time go by while I am unable

Escuela
to produce results makes me anxious. It impacts my expectations about myself.

White Goat, interview 1

## Over-performing as a source of anxiety:

The class does not intimidate me, because they are also learning like me. But I am afraid of being ridiculed because my pronunciation is too good. People sometimes do that.

White Mare, interview 1

## Fear over grades as a source of anxiety:

[When asked about her first experience in a Spanish classroom, she laughs timidly and says"] It was very scary, because I do not want to fail! It's the hardest class I have ever taken, aside from Math. It's very easy to forget an aspect of it.

Green Kangaroo, interview 1

### 5.2.3 Effects of classroom emotions on learners

## Correlation between FLCA and willingness to communicate:

Since I began learning Spanish, I have used it out of the classroom just once, at a restaurant. It went moderately well. I am not great with speaking in general, not even English, so trying in another language was just terrifying. Brass Sheep, reflection

Speaking in Spanish is very scary. I get stage fright. Speaking in front of classmates in Spanish is terrifying.

## Brass Sheep, interview 1

I feel pride when I have the time to think what I want to say and it comes out right [she smiles] ... But having to speak in class, or in club meetings, still makes me anxious, because I am not confident in my knowledge, pronunciation [...] I do not know if my thoughts are communicated appropriately [...] I do not have a lot of opportunities to use Spanish in my daily life. I like quizzing myself looking at my environment and it's fun to know the names of things. Other than that, I have never felt pressure or the need to use Spanish to communicate. Never enough to get over my discomfort of sounding stupid or making a mistake. Anxiety!

## Brown Lion, interview 1

Being called on in class is difficult, though. Having to speak in a foreign language in front of strangers. It makes me nervous.

Burgundy Hedgehog, interview 1

I do not like speaking in the classroom. Sometimes I dislike speaking in front of other people... It is intimidating. It makes me feel super nervous, particularly when I have an oral exam. I hate it when I feel I can't make a conversation flow completely.

Magenta Bear, interview 1

## Positive effects of FLSE:

[When asked if he feels supported by his parents regarding his attempts to learn Spanish:] I never talk to my parents about my classes. [When inquired about friends:] All my friends are taking these two Spanish classes with me. They support me because I have someone to study with. [...] It was really hard working with Spanish with strangers. But now it's not as bad, as most people in class have become familiar.

Brass Sheep, reflection

I like learning in a classroom because I don't feel alone. We are all at the same level and it makes me feel like my struggles are not just my own. Brown Lion, interview 1

I have a very positive perception of my Spanish instructor, as well as the classmates and the class atmosphere. Being in class has allowed me to make friends who are also interested in Spanish. I am also travelling in a study abroad experience with some of them. That is great. Some of us have a lot of mutual complicity.

Brown Lion, interview 2
I do not get nervous in class, in general. Everybody makes mistakes so, if I am to make one, it's going to be fine.

Brown Hippo, interview 1

There are a couple of people I know in each class I have taken here, which makes me feel like I have support. They are helpful and nice.

## Burgundy Hedgehog, interview 1

I feel really anxious in the class, which prevents me from being bored in it. Also, I enjoy the classroom environment as well, and laugh frequently. Green Kangaroo, interview 2

## Positive effects of FLPE:

Junior year of high school is when you are supposed to take Spanish 1 and 2, all pushed into one year. So that's why I took it then. When I came to college, I decided to take Spanish again because I really enjoyed it. [...] The whole reason why I continued taking Spanish was that good experience with that teacher. She made me fall in love with it. I am also a nursing major, so I believe Spanish could help a little bit professionally. And of course, the fact I enjoy it!

Brown Hippo, interview 1

### 5.2.4 Analysis

Qualitative data analyses confirm and articulate some of the insights obtained from the analyses of quantitative data, including the impact of certain teachers' characteristics on enjoyment. In Dewaele and MacIntyre (2019), it was indicated that FLE depended fundamentally on the instructor, and the subjects' cultural empathy, whereas FLCA was predicted more effectively by personal traits, such as emotional stability, as well as the subjects' perceived standing among their peers. Social factors were also quite important, as a positive atmosphere led to increased enjoyment, but a judgmental one would boost FLCA instead. Their findings confirm, once again, it is better for instructors to boost FLE
than to prevent FLCA, as the former of these emotions is more influenced by learnerexternal factors, while the latter is more connected to learner-internal ones.

There is an echo of these findings in the qualitative data. The insights regarding FLCA are particularly interesting. FLCA is generally described as an internal process contextually situated in relation to peers and instructors, yet fundamentally managed from the perspective of the subjects' impression of the quality of their performance, level of readiness, etcetera. Some moderating outside impact seems to be a strong FLSE. High levels of this emotion are associated with a sense of a community with non-judgmental, mistake-making peers. Other factors that seem to contribute to this positive emotion are gentle feedback and avoiding judgmental non-verbal cues, such as stern looks, sarcastic or impatient tones, etc. The subjects admit these circumstances do not eliminate FLCA, but they help them cope.

Finally, and consistent with the tenets of PP and theories such as the broaden-and-build theory, subjects shared an awareness of certain benefits of FLE, as well as sources for it. From the quoted sources in Chapter 4, we have the following: the perception of the class as a stimulating challenge, instructor helpfulness, and the classroom being a positive atmosphere. Others are instructor's knowledgeability, instructor's caring behavior, and instructor's usage of the target language. These factors were explicitly connected with increased FLE, which in turn promoted effects such as being more motivated, improving their perception of Spanish (to the point of "falling in love with it"), wanting to do well in class to return the good impression, etcetera. This matches the conclusions of PP in SLA studies since Dewaele and MacIntyre (2014) which regard the potential positive effects of these emotions on classroom performance and outcomes-but also on student well-being. More insights on the effect of FLE and FLCA on outcomes will be discussed in section 5.4.
5.3 Impact of Ideal and Ought-to self motivation on classroom emotions and outcomes

As indicated in the literature review, there are problems implementing the L2MSS motivation system to study the motivation to learn LOTEs, particularly when the learners are English L1 speakers. Thompson and Vásquez (2015) were among the best at identifying discrepancies in this model. They criticize its underestimation of the connection between the "I", the "other", and the context in which the learning takes place. These authors understand context as the experiences in the classroom, but also the linguistic ideologies and the social perception of the learners' first and target languages.

Dörnyei and Ushioda (2017) agree the L2MSS model needs to be adapted to account adequately for motivation to learn LOTEs; Dörnyei and Al-Hoorie (2017) admit the reductionist nature of the picture offered by L2MSS inspired research by focusing fundamentally on motivation to learn global English. They also concede this deficiency is particularly problematic when the first language of LOTE learners is precisely global English. The L2MSS has two dimensions in its classic formulation: ISM and OSM. One of the key flaws the authors identify in the context of exploring motivation to study LOTEs using the L2MSS is the individualistic nature of the ISM construct. While it is practical when the community of speakers of the target language is diffuse and intangible (as is the case with global English), it isn't as useful when, for example, the group of speakers is more specific and defined-such as Spanish speakers in the American Southeast.

Dörnyei and Al-Hoorie (2017) believe failing to account for the specific ties between the target language and its community of speakers may have a direct impact on the effectiveness of the L2MSS construct. Another key flaw of the model is the different nature of OSM associated with languages with a distinct sociolinguistic perception. Whereas global English usually has significant social prestige, languages like Spanish in the U.S. are in a more problematic situation, particularly in areas in which a significant presence of native speakers is historically recent. In those areas, Spanish is generally deemed a useful language but, on the other side, it is associated with a lower caste of outsiders. How these two circumstances apply to the context of this study highlight the
limitations of the L2MSS construct to explain motivation. Another shortcoming of the OSM construct applied to the study of LOTEs is the fragmented nature of that dimension, with conflicting OSM self-images occurring frequently, and having a counterproductive effect on the learner. Other authors such as Duff (2017) and Thompson (2017) further highlighted the problematic nature of the construct.

This dissertation explored the suitability of the L2MSS and its predictive power in the context of English L1 college students of beginner Spanish at ChSCC. The goal was to test if the model could predict student outcomes and further explore the complex nature of the OSM images of some of these subjects through the analysis of qualitative data. In addition, echoing Saito et al. (2018), the relationship between L2SMM motivation and classroom emotions was explored.

Based on the literature, the hypothesis established ISM would show a relationship with positive outcomes (persistence, grades, and proficiency growth) and FLE, whereas OSM would show inconsistent results. The analyses of the data collected show there is no significant correlation between either of these two motivational constructs and the decision to persist in the Spanish program at ChSCC. ISM shows a low positive correlation with FLE, particularly with FLPE. It also has a positive correlation with final grades, but this relationship was not significant. OSM has a significant negative correlation with FLSE but does not have a statistically significant relationship with any of the other variables. Qualitative data offered insights into the nature of OSM among the subjects, indicating the weakness of prevention-oriented motivation among them, due to the lack of social pressure to learn Spanish LX. There was also some evidence AOSM could be a relevant motivational factor for some of these subjects.

Chart 5.7 contains a summary of the tests results exploring the relationship between ISM, OSM, and classroom emotions:

| ISM vs FLSE | - Chi-square: $\mathrm{X}^{2}=0.589, \mathrm{p}=.4428$ Fisher's exact: $\mathrm{p}=.5015$ Pearson's correlation: $\mathrm{r}=.2777, \mathrm{p}=.0353$ <br> - Spearman's Rho: $r_{s}=.3021, p=.0211$ |
| :---: | :---: |
| ISM vs FLPE | Chi-square: $\mathrm{X}^{2}=2.1092, \mathrm{p}=.1464$ <br> Fisher's exact: $\mathrm{p}=.1789$ <br> Pearson's correlation: $\mathrm{r}=.3938, \mathrm{p}=.0022$ <br> Spearman's Rho: $r_{s}=.3734, p=.0039$ |
| ISM vs FLCA | Chi-square: $\mathrm{X}^{2}=0.8634, \mathrm{p}=.3528$ <br> Fisher's exact: $p=.3808$ <br> Pearson's correlation: $\mathrm{r}=-.1218, \mathrm{p}=.3616$ <br> Spearman's Rho: $r_{s}=-.0199, p=.8819$ |
| OSM vs FLSE | Chi-square: $\mathrm{X}^{2}=1.3873, \mathrm{p}=.2389$ <br> Fisher's exact: $\mathrm{p}=.2882$ <br> Pearson's correlation: $\mathrm{r}=-.2609, \mathrm{p}=.0478$ <br> Spearman's Rho: $r_{s}=-.3031, p=.0207$ |
| OSM vs FLPE | Chi-square: $\mathrm{X}^{2}=0.992, \mathrm{p}=.3192$ <br> Fisher's exact: $\mathrm{p}=.4817$ <br> Pearson's correlation: $\mathrm{r}=-.1045, \mathrm{p}=.4372$ <br> Spearman's Rho: $r_{s}=-.1898, p=.1535$ |
| OSM vs FLCA | Chi-square: $\mathrm{X}^{2}=0.0636, \mathrm{p}=.8009$ <br> Fisher's exact: $\mathrm{p}=1$ <br> Pearson's correlation: $\mathrm{r}=-.0934, \mathrm{p}=.4827$ <br> Spearman's Rho: $r_{s}=-.0934, p=.7127$ |

Chart 5.7: Summary of the test results exploring the relationship between ISM, OSM, and classroom emotions

ISM has a small to medium correlation with FLE, particularly with FLPE, as hypothesized. It also shows a weak negative correlation with FLCA, but this is not statistically significant. The behavior of the OSM construct is peculiar. It is negatively
correlated with all classroom emotions, particularly with FLSE. There is a partial match between these results and those obtained by Saito et al. (2018), which also found ISM was correlated with FLE, in particular with FLPE (.48, vs . 3938 in my study), and negatively correlated with FLCA. In Saito et al. (2018), OSM showed no correlation with any classroom emotion, which matches the results obtained in this study, apart from the significant negative correlation between OSM and FLSE, which was not present in their study. This unusual negative correlation between OSM and FLSE seems to be an anomaly, and perhaps an indication of the unsuitability of this construct as formulated in the current experiment. The positive correlation between FLE and ISM indicates positively influencing FLE could increase student motivation to learn Spanish at ChSCC. In turn, reinforcing students' ISM, following the recommendations of Dörnyei (2009), could contribute to increasing FLE-particularly FLPE.

The impact of these relationships is moderated by the poor results obtained when exploring the relationship between ISM, OSM, persistence, academic results, and proficiency gains. Below is a summary of the results of the Chi-square and Fisher's exact tests, as well as chart 5.8 with the logistic regression used to explore the relationship between ISM, OSM, and persistence in the Spanish program:

- ISM vs persistence:
- Chi-square: $\mathrm{X}^{2}=0.0288, \mathrm{p}=.865$
- Fisher's exact: $\mathrm{p}=1$
- OSM vs Persistence:
- Chi-square: $\mathrm{X}^{2}=0.930, \mathrm{p}=.335$
- Fisher's exact: $\mathrm{p}=.3607$

| Variable | Coefficient | Standard Error | $p$-value | Odds Ratio | 95\% Confidence Interval |
| :--- | :--- | :--- | :--- | :--- | :--- |
| ISM | 0.3851 | 0.2858 | $\mathbf{. 1 7 7 8}$ | $\mathbf{1 . 4 6 9 8}$ | $(0.8395,2.5734)$ |
| Constant | -1.3364 | 1.1451 | .2432 |  |  |
| OSM | -0.2467 | 0.3332 | $\mathbf{. 4 5 9 1}$ | $\mathbf{0 . 7 8 1 4}$ | $(0.4067,1.5014)$ |
| Constant | 0.7590 | 0.8305 | .3607 |  |  |
|  |  |  |  |  |  |

Chart 5.8 Logistic regression results exploring the relationship between ISM, OSM, and persistence.

The logistic regression indicates ISM has a chance to increase the odds to persist in the program (1.4698). This is neither confirmed by Chi-square and Fisher's exact tests, nor does it appear as statistically significant in the logistic regression. Interestingly, OSM seems to decrease the odds to persist, but this relationship is not statistically significant either. These results are important because they indicate motivation, as articulated by the L2MSS, does not predict student persistence. Either the model as used in the experiment fails to properly measure student motivation, or motivation is not a key factor affecting persistence.

This experiment also explored the relationship between ISM, OSM, and academic and proficiency outcomes for ChSCC students of Spanish 1010. Tests were run to explore whether a relationship existed between those motivational variables, subjects' final grades in Spanish 1010, and their proficiency growth in the same course. Test results are summarized below:

- ISM vs final grades in the course:
- Pearson's correlation: $\mathrm{r}=-.072, \mathrm{p}=.5970$
- Spearman's Rho: $\mathrm{r}_{\mathrm{s}}=-.02769, \mathrm{p}=.8365$
- ISM vs proficiency growth:
- Pearson's correlation: $\mathrm{r}=.020, \mathrm{p}=.8810$
- Spearman's Rho: $r_{s}=.0615, p=.6466$
- OSM vs final grades in the course:
- Pearson's correlation: $r=-.129, p=.3345$
- Spearman's Rho: $r_{s}=-.0773, p=.5642$
- OSM vs proficiency growth:
- Pearson's correlation: $\mathrm{r}=-.165, \mathrm{p}=.216$
- Spearman's Rho: $r_{s}=-.1414, p=.2895$

Quite surprisingly, ISM showed no correlation of any kind with these two outcomes. Meanwhile, OSM showed a weak negative correlation with both outcomes, but these were not statistically significant. These results indicated the L2MSS was not effective in predicting the final grades nor the proficiency growth of Spanish 1010 students at Chattanooga State.

As apparent from the results above, the behavior of the OSM score was particularly anomalous, as it was negatively correlated with student outcomes (albeit that correlation was not statistically significant). It was also remarkable that the subjects’ average OSM scores were very low: just 2.4 out of 5 . Furthermore, no individual survey item within the construct had a mean above 2.8 (the highest was "I must study Spanish because if I do not, it might hurt my career"). These issues match the reservations recent literature has expressed regarding the need to reform the OSM construct when studying motivation to learn LOTEs. Dörnyei and Al-Hoorie (2017) echoed a hypothesis that OSM could have less predictive power in general due to its external nature, which lends itself less to internalization (and thereby becoming less instrumental in the process of motivating the subject) than their ideal counterpart. The same authors indicate the OSM construct is likely perceived as more homogenous for learners of global English, whose importance is widely accepted in most modern societies. Since these subjects were learning a LOTE, this construct was less likely to be relevant, as the collected results show. Dörnyei and Ushioda (2017), Duff (2017), and Thompson (2017) express similar concerns.

To shed some light on how the subjects of this study experience and verbalize their OSM, extensive qualitative data was collected. The insights obtained from the analyses of this data were helpful to get a better picture of the nature of this motivational construct in the nine subjects who successfully completed Spanish 1010 and participated in the qualitative portion of the study. Unfortunately, similar data could not be collected from any subjects who either dropped Spanish 1010 or did not pass the course.

Some of the more salient elements emanating from the analysis of these data were:

- Subjects express a generalized perception that Spanish enhances professional opportunities, but that it is not considered a skill whose absence would hurt a career. When asked about practical reasons to learn Spanish, all subjects brought up the practical nature of Spanish as a job enhancer, matching the findings of Thompson (2017). However, when asked if they thought not learning Spanish would hurt their career, all of them but one denied it.
- Subjects echo a generalized perception that society around them does not care for Spanish.
- Subjects also echo a generalized perception that mastering Spanish is not particularly relevant to overall academic success.
- Many believe their peers have a negative or indifferent perception of Spanish.
- Many of the subjects considered their motivation to learn the language to be strictly personal, devoid of any external pressures.
- A plurality of the subjects feels motivated by pleasing a sympathetic instructor, but they do not express that drive in ways that indicate the prevention nature of the OSM construct as described in the traditional L2MSS construct. This weakness of the prevention-oriented focus of OSM matches the insights presented by Dörnyei and Al-Hoorie (2017) indicating the OSM will have a different function when associated with languages with marginal social support.
- Most subjects identify the source of social hostility towards Spanish as fundamentally political. For many of them, this was a potential source of AOSM, as they identified themselves as political outsiders.

Some of the testimonies illustrating these perceptions include:

Spanish enhances professional opportunities, but it is not considered a skill whose absence would hurt a career:

I want to be a psychologist, and I think Spanish could be important for my profession. Probably, whatever job I have I will interact with people, so it will be possible I interact with Spanish speakers.

Gray Lion, interview 1

I believe since so many people speak Spanish, I would miss out on things if I do not learn it. I do not think it would hurt my career if I do not fully learn it, though.

Gray Lion, interview 2

If I learn Spanish, I can teach abroad. If I am fluent, or at least familiar with Spanish, I would be qualified for more things, like jobs that require bilingual skills. Any job, really, has a demand for that. And most everyone here speaks English, but Spanish helps too. I would also have options to travel more and do more things, without limitations.

Brown Lion, interview 1

There is a huge need for counselors and educators who are bilingual, particularly to attend the needs of Spanish speaking undocumented children separated from their parents who end up being part of the foster care system. I want to learn Spanish because one, as an educator, I am likely working with people in these circumstances. And two, I plan to adopt children in the future, and I may end up being the parent of a child in that situation. That said, I do not think it would hurt her career significantly if I do not learn it, it is just useful stuff. They will want you to speak more languages in the workplace. The more you do, the better you would look. It is not a requirement, but perhaps an expectation.

White Goat, interview 2

I do not think not learning Spanish would hurt my career, but I am convinced it would help it.

## Green Kangaroo, interview 2

People in my career field probably will not require me to learn Spanish.
Brass Sheep, interview 2

I do not think I would hurt my career if I don't learn it, because I know plenty of successful nurses who are monolingual. But I also know it can only help.

Brown Hippo, interview 2

There is only one explicit exception of a subject that believes not learning Spanish may hurt his future career:

I believe not studying Spanish would hurt my future career, given my interest in the landscaping business.

Burgundy Hedgehog, interview 2

## Society does not exert pressure on the subjects to learn the Spanish language:

I would not say people around me expect me to learn Spanish. I just do it. It's not really that important for me what they'd think.

Gray Lion, interview 2

It's a personal decision to learn the language, but I feel the fact the degree I am completing requires it would imply society expects me to know it, even though a lot of people don't seem to have that expectation, since most people I know are monolingual.

Magenta Bear, interview 2

I do not believe high schools nor the students in our area take Spanish seriously.

White Goat, interview 2

I would not say the average English-speaking American is inclined to learn other languages, no [she smiles critically]. For most it is just a requirement and that's the school system's fault too. Our entire education system does not put a lot of emphasis on that. I just had to take French for two semesters in high school, and it was very ineffectual [...] it was not a good experience. Brown Lion, interview 2

## Mastering Spanish is not particularly relevant to general academic success:

This is a perception that often comes from family or friends, even though there are exceptions, such as:

My family is supportive of learning Spanish. My dad told me back when I was in 8th grade, "by this year, if you don't learn another language in this country, you are going to be as good as illiterate." I don't know if that's true, or where he got that, but that kinda motivated me. My mom is glad I am taking Spanish as well.

## Gray Lion, interview 1

My dad believes learning Spanish is necessary to be considered educated.
My parents are monolingual, but they have started learning using Duolingo.
My dad says random words in Spanish, peppering their conversation.
Gray Lion, interview 2

The most general tone, however, indicates lukewarm support, indifference or even hostility towards Spanish:

My family thinks it's great I am learning Spanish. They really do. They did not go beyond that, though: no active encouragement or support beyond acquiescence.

White Mare, interview 1
[When asked if her family supports her learning Spanish, she says:] Yes, [chuckles and looks away] they have always been a bit hands off when it comes to me...for everything. They consider it just "a thing [Brown Lion] is doing." They think it is great I learn it, but they don't necessarily think I should. They are very removed emotionally from it, but they are still supporters, just not cheerleader supporters: "Sure, do whatever you want." They never disrespect or discourage me for it.

## Brown Lion, interview 1

My family does not think language is necessary to be educated. They don't oppose them, but they don't favor it fully. They are not too invested into it. Brass Sheep, interview 2

I think my family does not believe learning Spanish is necessary to be considered educated" [said emphatically]. [...] Not my immediate familydefinitely not. I am not in much contact with my cousins, but they frequently go on mission trips to Haiti. For my family, graduating high school is already great. A college education is a plus, and language a perk, but not a necessity.

White goat, interview 2

My family does not think you need to speak a second language to be educated.

White Mare, interview 2

Well, my sister thinks it's cool [that she is learning Spanish]." [Laughs] "And, my parents aren't really too involved into my education. They are not hardcore [...] My mom thinks it's cool when I can talk or translate. But my dad does not understand why I am taking it or why I am doing it at all. He is just crazy. Brown Hippo, interview 1

Sometimes that hostility serves a motivator, in a potential example of anti-ought-to self motivation:

I like how special it makes me feel. I told my parents I was going to take Spanish in college, and they were like why? [She imitates a mocking facial expression]. And I was like "because I want to" and they said, "well, that's... weird. Nobody around here knows it and stuff." And I answered, "I am not going to be around here forever... And I enjoy it, and I am paying for it. So, it is going to happen."

Brown Hippo, interview 2

Subjects' peers and friends have a negative or indifferent perception of Spanish, although Hispanic friends are identified as sources of motivation. The exception to this ruleusually Hispanic friends-is typically a distinct motivator:

Now that I have Spanish-speaking friends, I am ever more motivated to speak with them.

## Gray Lion, interview 2

Knowing Latinos personally has influenced my desire to learn the language. White Mare, interview 2

But the true reason why I took it was my uncle. He came down to TN with his boyfriend, a native speaker of Spanish. And it was really impressive to see him, the whitest Californian guy, being proficient in Spanish. He is my favorite part of the family and has supported my education a lot, and, I don't know, seeing them communicate like that make me really want it. Spanish is a way to communicate with people, but also a way to bond with them.

## White Goat, interview 1

Common cases of perceived indifference are illustrated below:

Most kids my age don't like to be told what to do, particularly when it comes down to things that are out of their comfort zone. So, when you tell them to go learn a new language, they don't like it. They are intimidated, and do not have motivational drive. This same thing happened to me at first, but since I saw it coming, since 7th or 8th grade, I wasn't completely blindsided. It wasn't as bad, but overall, I am more open minded than my school peers. My middle school classmates absolutely hated it. I personally tried not to hate it to avoid making myself miserable.

Brass Sheep, interview 2

I do not feel any of my friends or relatives expect me to learn Spanish. I find it strange that, despite both of my sisters are married to Spanish speakers, neither are making efforts to pass the language to their kids. They all speak English at home, and all four of my nephews are English monolingual. I don't know why they are doing this, but I guess my sisters do not see the importance of speaking other languages.

Green Kangaroo, interview 2

## Motivation to learn the Spanish language is strictly personal, not the result of external pressures:

One example of this is how three of the subjects actually had to either change their schedule against the recommendations of their academic advisors, or enroll in Spanish on their own, without telling their academic advisors:

My advisor made a schedule for me, without Spanish, and I asked her to add it to the list. She is the one who registered me, but I pick my classes. The advisor did not recommend it, nor did they discourage taking it.

## Brown Hippo, interview 2

Other than that, it was frequent to hear the subjects affirm the personal nature of their decision to learn Spanish, often unprompted:

I have no social pressure to take Spanish. None of my friends really expect me to learn it.

Brass Sheep, interview 2

I don't feel like anyone has any expectations of me learning Spanish. I feel like it is fully personal.

Brown Lion, interview 2

Nah, I do not take Spanish because it is important for people around me. It is all me. It is my own expectation.

Brown Hippo, interview 2

People around me do not expect me to learn Spanish. I do it mostly for myself.

Burgundy Hedgehog, interview 2

## Pleasing a sympathetic instructor can be a source of motivation, but subjects often do not express that drive in ways that indicate the prevention-oriented nature of the traditional OSM construct:

I have a huge respect for anyone who is passionate about what they do and, clearly, my Spanish instructor is. There is a fear of disappointing him if I don't perform well in the classroom because I have a huge deal of respect for him.

White Goat, interview 2
My current instructor has helped boost my confidence and improve my attitude towards the language a lot, and I'd say now it has come to a point in which I want to be right, so he is proud of me. This did not happen to me early on, particularly when it was a one-on-one with him.

Brass Sheep, interview 2

To an extent, I think doing well in class is also important for me, so the instructor is not disappointed. He puts all this effort into teaching us, that I feel if I don't perform well, it is disappointing to him.

Brown Lion, interview 2

I thinks it is important to show I am up to par, to show her [the teacher] I am doing my part to match the efforts she is making to teach me.

Burgundy Hedgehog, interview 2

Yeah. The instructor and I are close to the point he would not like me to do bad, so I try to make an effort to avoid disappointing him.

Magenta Bear, interview 2

## Subjects identify the source of social hostility towards Spanish as fundamentally political, and oriented towards its native speakers:

I believe the news fuels negativity around Latino immigration. But I don't think the problem in the US is immigration per se, but the reaction to it expressed by native residents.

White Goat, interview 2

I believe blaming Hispanics for problems here is absurd. Our problems have roots in our society, and people often enjoy blaming "others" instead of themselves, using them as scapegoats. I like watching documentaries and news stories, and the good ones contradict what the general population thinks.

Brown Hippo, interview 2

I have heard Latinos are a burden to the US economy, but I do not agree. I've heard it on the news often... A lot of news stations have a slant that way, and they can influence how people think.

Burgundy Hedgehog, interview 2

I am not aware of the percentage of Latinos who are undocumented, but I can tell you the media is implying most of them are. America is very nationalistic, to the extreme, and there is not a lot of exposure to other cultures, and I do not want that with me. Also, I want to go into news media, and I feel learning another language will be useful for me. Among other things, to help dispel these assumptions.

## Magenta Bear, interview 1

I believe there is a political divide in Latino perceptions in America: Conservatives echo negative portraits, whereas liberals highlight positives. Magenta Bear, interview 2

I reject the media's association between immigration and crime, and believe Latinos are more hard working than other groups. Someone who has gone to great lengths to make it from Central America to Tennessee is likely to put more effort than average in their work.

Green Kangaroo, interview 2

These testimonials highlight some of the insights shared earlier, present in recent literature examining the role of the OSM construct in motivation to learn LOTEs. First, it is salient how absent the prevention nature of the construct in its classical formulation is from these testimonials. Subjects repeatedly affirm the personal nature of their interest in learning Spanish, are generally aware of the hostility or indifference of many around them
towards the language and tend to have a perception that such hostility or indifference is political in nature. It seems like most subjects do not perceive society or peers as motivational factors due to this general indifference. However, it is noteworthy that at least one subject makes an expression of what seems to be AOSM-the new concept outlined by Thompson (2017). This subject draws energy from the opposition her father expresses to her goal of learning Spanish.

Overall, although Spanish seems objectively useful to most of these subjects, they also have an understanding they will probably do fine in their careers and be successful if they end up not learning it-a conviction that undermines once again the prevention-oriented nature of the OSM construct.

Finally, many of the subjects find external motivation stemming from some of their friends and relatives, particularly those who speak Spanish as a first language or who express an explicit love or respect for the language. Sympathetic teachers can also be factors of external motivation. The data present multiple instances of subjects connecting these personal relations directly with motivation. However, this desire to either please or be closer to these people seems more connected with self-promotion than with fulfilling an obligation, with some exceptions in the case of the motivation drawn from teachers.
If anything, this last insight indicates how important it is for Spanish instructors in this part of the country to develop positive relationships with their students. These positive relationships may function as a generator of FLE and contribute to transforming the teacher into a positive element in the constellation of fragments in which the OSM construct seems to function for learning Spanish at ChSCC.

### 5.4 Classroom emotions and outcomes

Some of the PP in SLA studies attempt to connect classroom emotions and student outcomes. After all, what is the point of trying to prove faculty can affect classroom emotions if these do not have an impact on motivation, persistence, academic results, or proficiency gains? Some studies show such connections with Dewaele and Alfawzan (2018) linking FLE with increased target language proficiency, and Saito et al. (2018) linking FLE with gains in target language comprehensibility. The fourth experiment in
this dissertation attempted to explore the relationships between FLE, FLCA, and student outcomes for ChSCC subjects.

Just as in the previous experiment, the three outcomes included as variables in this one are:

- Persistence, characterized as enrolling in Spanish 1020, as opposed to dropping Spanish 1010, failing it, or passing it but declining to enroll in the next semester
- Academic success, characterized as the final grade obtained by these subjects in Spanish 1010 (students dropping were assigned an F)
- Proficiency growth, characterized as the number obtained from subtracting the score subjects obtained in a content pretest at the beginning of their Spanish 1010 course from the grade they obtained in the same test at the end of the course.

To explore the relationship between FLSE, FLPE, FLCA, and the first one of these outcomes, non-parametric tests, such as Chi-square and Fisher exact tests were run first. The results obtained are summarized below:

FLSE vs persistence:

- Chi-square: $X^{2}=10.1786, p=.0014$
- Fisher's exact: $\mathrm{p}=.0031$

FLPE vs persistence:

- Chi-square: $\mathrm{X}^{2}=5.8312, \mathrm{p}=.0157$
- Fisher's exact: $\mathrm{p}=.0262$

FLCA vs persistence:

- Chi-square: $\mathrm{X}^{2}=0.592, \mathrm{p}=.4416$
- Fisher's exact: $\mathrm{p}=.5782$

Then, a logistic regression was run to figure out to what degree each variable predicts the decision to enroll in SPAN1020. A summary of the results is in chart 5.9:

| Variable | Coefficient | Standard Error | p-value | Odds Ratio | $95 \%$ Confidence Interval |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :---: |
| FLSE | 1.9857 | 0.6697 | $\mathbf{. 0 0 3}$ | $\mathbf{7 . 2 8 3 9}$ | $(1.9603,27.0650)$ |  |
| Constant | -7.5266 | 2.7425 | .0061 |  |  |  |
| FLPE | 0.9525 | 0.4168 | $\mathbf{. 0 2 2 3}$ | $\mathbf{2 . 5 9 2 1 1}$ | $(1.1452,5.8668)$ |  |
| Constant | -3.0586 | 1.6297 | .0605 |  |  |  |
| FLCA | -0.1589 | 0.2975 | $\mathbf{. 5 9 3 3}$ | $\mathbf{0 . 8 5 3 1}$ | $(0.4762,1.5283)$ |  |
| Constant | 1.1551 | 1.0065 | .2511 |  |  |  |
|  |  |  |  |  |  |  |

Chart 5.9 Logistic regressions measuring relationships between classroom emotions and persistence
FLE shows a significant correlation with persistence, particularly FLSE, with a Chi coefficient of 10.1786 and an odds ratio of 7.2839 , both of which are statistically significant. FLPE shows a Chi coefficient of 5.8312, and an odds ratio of 2.59211. FLCA has a weak negative correlation, but this correlation is not statistically significant.

The relationship between classroom emotions and other outcomes, such as final grade in the class and proficiency growth, were explored through Pearson's and Spearman's Rho correlation tests. The results indicate weak positive correlations between FLE and each one of these outcomes. The correlation between FLE and final grades is statistically significant according to the Spearman's Rho test. Meanwhile, neither classroom emotion is significantly correlated with proficiency growth. FLCA shows a weak negative correlation with final grades, and no correlation with proficiency growth. Both results are far from statistically significant. The summary of these results can be seen below:

FLSE vs final grades:

- Pearson's correlation: $\mathrm{r}=.253, \mathrm{p}=.073$
- Spearman's Rho: $\mathrm{r}_{\mathrm{s}}=.267, \mathrm{p}=.0427$

FLSE vs proficiency growth:

- Pearson's correlation: $\mathrm{r}=.192, \mathrm{p}=.177$
- Spearman's Rho: $\mathrm{r}_{\mathrm{s}}=.2071, \mathrm{p}=.1187$

FLPE vs final grades:

- Pearson's correlation: $\mathrm{r}=.245, \mathrm{p}=.083$
- Spearman's Rho: $\mathrm{r}_{\mathrm{s}}=.2732, \mathrm{p}=.038$

FLPE vs proficiency growth:

- Pearson's correlation: $\mathrm{r}=.170, \mathrm{p}=.232$
- Spearman's Rho: $r_{s}=.1385, p=.2997$

FLCA vs final grades:

- Pearson's correlation: $\mathrm{r}=-.102, \mathrm{p}=.476$
- Spearman's Rho: $\mathrm{r}_{\mathrm{s}}=-.1145, \mathrm{p}=.3919$

FLCA vs proficiency growth:

- Pearson's correlation: $\mathrm{r}=-.047, \mathrm{p}=.743$
- Spearman's Rho: $\mathrm{r}_{\mathrm{s}}=.0249, \mathrm{p}=.8529$

Both types of FLE are effective predictors of persistence among these subjects. However, when it comes to proficiency growth or final grades, the existing weak correlations between emotions and results are not strong enough to be significant in most cases, although Spearman's Rho results correlating FLE and final grades are indeed statistically significant. This partially matches results of Saito et al. (2018), and Dewaele and Alfawzan (2018), which both managed to find statistically significant correlations between FLE and student outcomes.

Proficiency growth was not correlated with classroom emotions nor with motivation. This could be explained by the fact that those students who had a good experience taking Spanish before coming to college may have had a stronger foundation than most, which would have curved their potential for growth, while likely propping up their FLE. The second experiment showed how having had a positive previous experience with Spanish had an influence on both positive attitudes and FLE.

FLCA does not seem to be a factor in either of these outcomes. Even though this classroom emotion is negatively correlated with all of them, this correlation is always small, and never enough to be statistically significant. As previous studies around PP in SLA have shown-from Dewaele and MacIntyre (2014), to Dewaele (2019) or Dewaele and MacIntyre (2019), FLCA does play a negative role in the learning experience of language learners. However, students experiencing FLCA are often capable of managing this negative role and overcoming its pervasive effects-particularly in the presence of
positive emotions such as FLE. FLE boosts a sense of community among learners, as well as one of common purpose and, when FLE is high among most pupils and a classroom, a state of flow can be achieved. This state of flow is a powerful motivator and can overcome some of the negative effects of FLCA, as some of the subjects indicated in experiment two.

The results of experiment four, combined with those from experiment two, have important pedagogical and institutional implications. First, it seems like this study confirms the findings of previous research, indicating FLE and FLCA are two separate dimensions that operate semi-independently, and not two ends of a spectrum. It also confirms FLCA is mostly dependent on learner-internal factors, whereas FLE has a stronger relationship with learner-external ones, such as teacher's characteristics and behaviors, peers' characteristics and behaviors, and perceptions of instruction. It also seems like FLE has a significant correlation with persistence in the language program, particularly FLSE. The potential benefits of increased FLE among students are clear, not just for their personal well-being, as apparent in the qualitative data in experiment two, but also for their better academic results (statistically significant for their persistence, and to a degree for their grades as well). This increase in persistence has potential benefits for institutions and the teachers in charge of teaching Spanish as well, as it has a direct positive impact on institutional and program funding through better enrollment, persistence, and completion rates.

Since faculty can have an impact on FLE, as experiment two confirmed, it is recommended for faculty to implement PP-inspired interventions in the classroom, geared toward increasing FLE by fostering the conditions this research has unveiled as beneficial to promote it. Institutions should make this possible by providing the necessary training for faculty members, and ensuring they are supported when implementing these interventions in the classroom. Finally, it is not far-fetched to claim that similar PPI in other areas of the college-including advising, financial aid, and student services-could contribute to supporting these positive emotions inspired in the classroom, and further contribute to increasing persistence, student success, and institutional performance beyond the Spanish program.


This dissertation set out to explore the impact of student attitudes on enrollment in Spanish 1010 classes at Chattanooga State Community College (ChSCC). It also intended to explore how classroom emotions influence persistence and success in students enrolled in the Spanish program at that institution. Another of its goals was to explore the applicability of the L2 Motivational Self System (L2MSS) to measure the motivation to learn Spanish L2 in these subjects, and the possible relationships between motivation and classroom emotions.

Chapter 2 is devoted to reviewing the current relevant literature, which establishes enrollment and persistence can be better explained through holistic models that include learner-internal variables, such as emotions, attitudes, or resilience (Bean \& Eaton, 2001; Davenport \& Lane, 2006; Hlinka, 2017; or Kahu \& Nelson, 2018). It also claims one of the most popular models to study motivation to learn languages other than English (LOTEs), Gardner's Socio Educational Model (Gardner, 1985), has been displaced (Taie \& Afshari, 2015) by the L2MSS (Csizér \& Dörnyei 2005, Dörnyei 2009). This model has shown to be more adept at explaining motivation to learn English, due to the decreased relevance of integrativeness (INT) to study a global language, and the fact it incorporates the latest findings regarding human motivation in recent cognitive psychology (Ushioda \& Dörnyei, 2017). However, the L2MSS in its original formulation is not as effective in measuring motivation to study LOTEs, particularly those with a conspicuous community of speakers, and/or those with strong negative sociolinguistic connotations of the community of the potential learners (Dörnyei \& Al-Hoorie, 2017; Duff, 2017; Thompson, 2017; or Ushioda \& Dörnyei, 2017). Specialized literature within the subfield of positive psychology in second language acquisition (PP in SLA) shows classroom emotions, such as foreign language classroom anxiety (FLCA) and foreign language classroom enjoyment (FLE), have an impact on learners' motivation and outcomes. FLCA narrows learners' perspectives, and it is generally correlated with attrition, whereas FLE broadens their perspective, helping their motivation and achievement (Dewaele \& Alfawzan, 2018; Dewaele \& Dewaele, 2017; Dewaele \& MacIntyre, 2014, 2016; Dewaele et al., 2017, 2019; or Saito et al., 2018). Finally, this same area of research indicated teachers can seldom eliminate FLCA-although they can make it worse-but they can have a positive impact on FLE through their behavior in the classroom (Dewaele \& Dewaele, 2017; Dewaele et al., 2017, 2019b; or Saito et al., 2018).

Based on these insights, four research questions were elicited, and the same number of experiments were designed to find answers for them. These experiments are described at length in Chapter 3, and they imply the analyses of extensive quantitative and qualitative data gathered from 70 of the 72 members of the population studied at the time (the fall semester of 2018). The first experiment is a mixed-methods synchronic study with a control group. The purpose of the experiment was to find out if there was a significant difference between the attitudes towards the Spanish language (ATS) and towards Hispanics in the U.S. (ATH) between students who decided to enroll in Spanish 1010, and those who had decided not to do so. The second is an ex post facto research design, intending to explore the impact of teacher-centered variables on students FLCA and FLE. The third experiment is also an ex post facto research design, this time focused on exploring the relationship between ideal self motivation (ISM) and ought-to self motivation (OSM), as conceptualized in the L2MSS, and student outcomes. It also explores the nature of OSM among English L1 learners of Spanish LX at ChSCC. Finally, the fourth experiment is a quantitative synchronic study with a control group, focused on measuring the impact of FLCA and FLE on student outcomes.

The analysis of the collected data according to the experimental designs outlined above is presented in detail in Chapter 4. The results show a statistically significant difference in the attitudes towards Spanish and its speakers expressed by students who enroll in Spanish 1010 at ChSCC and the general student population, with the latter holding more negative views both towards the language and its speakers. These results confirm those obtained by Acheson et al. (2015) for younger students in the same cultural and sociological region. Considering the positive results achieved by these researchers improving these perceptions in their subjects through a global and cultural awarenessinspired instructional intervention, it is safe to recommend a similar approach for ChSCC . This curriculum could serve three functions: fulfilling the global and cultural awareness (GCA) institutional learning outcome, increasing enrollment in their L2 Spanish program, and improving the sense of belonging and well-being for Hispanic students and employees on our campus.

As per classroom emotions, students who abandon the program early report more FLCA than those passing the course successfully and returning the next year. There is also a low negative correlation between FLCA, persistence, and final grades. However, FLCA
results are complex and difficult to interpret, as these correlations are not statistically significant. The relationships between FLE and persistence and success are easier to establish. The results in these experiments confirm the findings of Dewaele and Dewaele (2017), Dewaele et al. (2017, 2019b), and Saito et al. (2018). According to the experimental results in this dissertation, which match those obtained by the researchers listed above, engaging, meaningful instruction, and instructor demeanor can have a positive impact on students' attitudes and classroom emotions. Teachers at ChSCC can increase student's FLE through kindness, helpfulness, a caring demeanor, and using Spanish often in the classroom. They can also empower students to promote FLE for each other by creating a positive and supportive community of learners and helping mediate some of the anxiety nearly every subject reported to experience at some point in the learning process. Another way in which faculty can influence classroom emotions is by limiting the negative effects and endurance of FLCA by providing timely, yet compassionate, non-judgmental feedback, and by avoiding critical behaviors such as sarcasm.

It is safe to assume institutional programs, co-curriculars, and student involvement activities can have a positive impact on attitudes, echoing and amplifying the work of students in the classroom. In an area like the American Southeast, in which the target language, Spanish, has low social prestige, the presence of positive authority figures vouching for it can significantly alter the social perception of the language-and its speakers-on the part of the subjects. Since positive attitudes are correlated with students' decisions to enroll in Spanish, and positive classroom emotions are correlated with higher persistence, investing in the interventions inspired by the principles outlined in this conclusion could benefit both enrollment and persistence.

The results discussed in Chapter 5 also contribute to shedding some light on the nature of the OSM construct as applied to community college students learning basic Spanish in Tennessee. Matching the notions outlined by Dörnyei and Al-Hoorie (2017) and Thompson (2017), this construct appears fragmented and tinged by reformulations such as the AOSM construct. It also appears less rooted in the prevention-oriented nature of the construct as formulated in the original L2MSS framework. Further research on the matter can contribute to clarifying the nature of external motivation to learn Spanish in TN , thereby potentially expanding the applicability of the framework in this context.

Since the data for this experiment was first collected and analyzed in 2019, the COVID19 pandemic has fundamentally altered our horizons and everyday life. Higher education has been singularly impacted by this global pandemic, with community colleges in the U.S. losing droves of students, faculty and administration resigning at previously unseen levels, and remaining students and employees experiencing increased stress, anxiety, and uncertainty. As enrollment decreases, community college budgets have experienced stress, so the funds required to undertake some of the reforms necessary to adjust to these changes are not always available.

At the 2022 First-Year Experience conference in Orlando, FL, Yuhas et al. presented the results of a 2020-2021 Student Well-being Institutional Support Survey conducted in six higher education institutions in the U.S. The results of this survey indicate well-being is integral to student success and persistence and fundamental for long-term institutional health, both literally and financially. The authors strongly encouraged higher-education institutions to move away from the idea of student support as a collection of services, frequently focused on material needs and siloed within specific departments. Instead, they propose a holistic approach to well-being as taking the form of a general culture that permeates entire institutions and supports students and employees materially, but also emotionally.

The study referenced above further supports the evidence indicating PP-inspired teaching can have positive effects on students and faculty beyond the objective effects on persistence and success-such as promoting student wellbeing. Another reason, then, for institutions to invest in improving students' attitudes towards each other, and for faculty and staff to behave kindly and empathetically with students in and outside the classroom is that it does not just have an impact on enrollment and persistence in a given program, it can promote overall well-being, hence contributing to bettering the lives of everyone participating in the higher education process, beyond quantitative gains in state designated indicators.

Consequently, it is recommended to invest in emotional intelligence and PP training for faculty and staff at ChSCC, as well as culturally responsive teaching. Instructors are recommended to invest time and effort into designing classroom activities that encourage the usage of the target language in a structured, inviting environment that avoids
punishing consequences for making mistakes. They are also invited to use this language often, and act with a demeanor that presents them as helpful, kind, and caring in and outside of the classroom. Academic and student life departments are encouraged to work with the diversity, equity, and inclusion offices within institutions to organize extracurricular activities on campus and promote a culture in the classroom that actively reinforces intercultural empathy, positive communication, and a compassionate approach to other cultures. This two-pronged intervention has the potential benefit of increasing GCA among ChSCC students and employees, contributing to increasing enrollment in modern language programs, increasing student persistence, and having a positive impact on the overall well-being of our student body in three different ways:

1. Improving students' chances of academic success.
2. Establishing positive relationships with faculty and peers.
3. Fostering a sense of inclusiveness in the ever-increasing Hispanic population on campus.

This study presents several weaknesses, such as the limited size of the sample, which could be corrected either repeating the study with a larger sample or triangulating it with future similar studies. Unfortunately, there is a current lack of such studies on two-year institutions in the U.S. despite the increasing number of studies exploring the relationship between motivation factors-including integrative attitudes, classroom emotions, and student outcomes in the L2 classroom. This absence makes the potential benefits of triangulation with existing studies less relevant, given the peculiarities of the context outlined above. In addition, social desirability bias might have influenced the answers provided by the subjects when attempting to measure their attitudes towards both the Spanish language and its speakers.

There are several future opportunities for research emerging from this study, including case studies to better understand SLA motivation-particularly the OSM construct, and the impact of classroom emotions on Spanish L2 community college students. A wider study aimed at further exploring the relationship between linguistic and cultural attitudes and GCA can also shed more light on the potential correlation between both variables, clarifying other potential benefits of investing in that learning outcome. It would also be useful to explore the impact that co-curriculars and institutional culture have on students'
attitudes towards other languages and their speakers. A similar study on students of a four-year institution in the same area could help clarify the potential differences in the relationships between classroom emotions, motivation, and outcomes between language subjects in both types of institutions. Finally, it would be useful for instructors to have access to the insights from further exploring the contextual variations of classroom emotions over time, and the role that learner-internal and learner-external variables play on those processes.

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## APPENDICES

## Informed consent form

## Informed Consent Form

## With researcher Juan Alonso

The purpose of the study is to understand the impact of attitudes and classroom emotions in second language acquisitions.

You will be asked to fill out a questionnaire with Likert scale and open ended answers. Your answers will be used as the main source of primary data in the study.

There are no risk or discomforts associated with participating in the study.
There will be no cost to you if you participate in this study.
You will not receive any monetary compensation for your participation in this study.
There may be no personal benefit from your participation, but the knowledge received may be of value to humanity.

Your participation is voluntary. Refusal to participate or withdrawal of your consent or discontinued participation in the study will not result in any penalty or loss of benefits or rights to which you might otherwise be entitled. The principal investigator may at his/her discretion remover you from the study for any of a number of reasons. In such an event, you will not suffer any penalty or loss of benefits or rights which you might otherwise be entitled.

Your anonymity will be maintained during data analysis and publication/presentation of results by any or all of the following means: (1) You will be assigned a number or alternative nickname as names will not be recorded. (2) The researchers will save the data file and/or any video or audio recordings by your number or alternative nickname, not by name. (3) Only members of the research group will view collected data in detail. (4) Any recordings or files will be stored in a secured location accessed only by authorized researchers.

If you have any questions about this study, you should feel free to ask them now or anytime throughout the study by contacting:

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This study is self-funded. Neither Chattanooga State and/or Juan Alonso will receive financial benefit based on the results of the study.

I understand the nature of this study and agree to participate. I received a copy of this form. I give the principal investigator and his/her associates permission to present this work in written and/or oral form for teaching or presentation to advance the knowledge of science and/or academic without further permission from me provided that my name or identity is not disclosed.

## Section 1

1. I am taking Spanish in college only because it is a requirement for my degree.
2. If I could take any elective in the catalog to fulfill this requirement, I would still take Spanish.
3. English-speaking Americans should be able to opt out of foreign language classes in college if they don't interest them.
4. I am not taking any more Spanish classes in college once I am done with my requirement.
5. Please explain your answer to question \#4.

## Section 2

6. I enjoy meeting and listening to people who speak other languages.
7. Because the United States is relatively far from many countries speaking other languages, it is not important for Americans to learn foreign languages.
8. English-speaking Americans should make a greater effort to learn the Spanish language.
9. For the most part, Hispanic Americans are sincere and honest.
10. As a general rule, Hispanic American residents bring drugs and gangs with them.
11. Most Hispanic Americans are very hardworking.
12. Hispanic Americans are a burden on this country's economy.
13. Hispanic American immigrants should assimilate or go back to their countries.
14. I would like to know more Hispanic Americans.
15. Hispanic American immigration is making this country a worse place to live.
16. Some of our best citizens are of Hispanic American descent.
17. A significant percentage of Hispanic Americans are here illegally.
18. The Hispanic American heritage is a very important part of our U.S. American identity.
19. The increasing presence of the Spanish language around us is a threat to American culture.
20. The more I learn about Hispanic Americans, the more I want to be fluent in their language.

## Section 3

21. I want to be fluent in Spanish one day.
22. I can imagine myself as someone who is able to speak Spanish.
23. I can imagine a situation where I am speaking Spanish with foreigners.
24. I can imagine myself living abroad and having a discussion in Spanish.
25. Whenever I think of my future career, I imagine myself using Spanish.
26. My family believes that I must study Spanish to be an educated person.
27. Learning Spanish is necessary because people around me expect me to do so.
28. I have to study Spanish because, if I do not study it, it might hurt my career.
29. I study Spanish because close friends of mine think it is important.

## Second Quantitative Survey

## Section 1

1. What was the result on your last Spanish language test (in letter grade)?

## Section 2

2. What is your attitude towards your current Spanish instructor? (Possible answers were "very unfavorable", "unfavorable", "neutral", "favorable", "very favorable")
3. What is your instructor's gender? (Possible answers included "female", "male", "other")
4. How strict is your instructor? (Possible answers: "not strict at all", "a little strict", "rather strict", "strict", "very strict")
5. How friendly/approachable is your instructor? (Possible answers: "very unfriendly", "unfriendly", "neutral", "friendly", "very friendly")
6. Is your teacher a native speaker of Spanish? (Possible answers: "yes", "no", "I don’t know")
7. How frequently does your teacher use Spanish in class? (Possible answers: "hardly ever", "not very often", "sometimes", "usually", "all the time")
8. Is his/her typical Spanish class session predictable? (You always do similar activities, in similar order.) (Possible answers were "not predictable at all", "not very predictable", "undecided", "somewhat predictable", and "very predictable")
9. His/her classroom assignments keep you engaged and actively participating.
10. The activities you do in class help you improve your Spanish.
11. Your instructor cares about you.
12. Your instructor is helpful.

## Section 3

13. I don't get bored in Spanish class.
14. I enjoy my Spanish class.
15. I'm a worthy member of the Spanish class.
16. In class, I feel proud of my accomplishments.
17. It's cool to know Spanish.
18. My Spanish class is a positive environment.
19. It's fun to learn Spanish.
20. My classmates are nice.
21. There is a good atmosphere.
22. We laugh a lot.
23. Even if I am well prepared for my Spanish class, I feel anxious about it.
24. I always feel that the other students speak Spanish better than I do.
25. I can feel my heart pounding when I'm going to be called on in Spanish class.
26. I don't worry about making mistakes in Spanish class.
27. I feel confident when I speak in Spanish class.
28. I get nervous and confused when I am speaking in my Spanish class.
29. I start to panic when I have to speak without preparation in Spanish class.
30. It embarrasses me to volunteer answers in my Spanish class.
31. Describe one specific event or episode in your Spanish class that you really enjoyed and describe your feeling in as much detail as you can.
32. Describe one specific event or episode in your Spanish class that made you really anxious and describe your feeling in as much detail as you can.

## First qualitative instrument: language learning history prompt

"Write your own story about your Spanish learning experiences from the moment you began learning Spanish until now. Focus on what you consider to be more important and try to give as many details as possible. When reflecting upon your experiences, make sure you include answers to the following questions:

- When and where did you start learning Spanish?
- How have you learned Spanish?
- What is your most vivid memory regarding your Spanish learning experiences?
- What opportunities have you had to use Spanish until now?
- Who played a particularly important role in your Spanish learning process? In what way(s)?

Keep in mind that your language learning history should look like a story (the story of your Spanish learning experiences) rather than like answers to a questionnaire."

## Second qualitative instrument: first interview prompts

## Explore the language learning history

- In your language learning history, you said that ... Can you tell me more about that?


## Feelings towards learning Spanish:

- The metaphor you used was: "Learning Spanish is ...". Why is learning Spanish ... for you?
- What do you like about learning Spanish in the classroom?
- Can you tell me about a specific lesson that you enjoyed very much?
- What do you dislike about learning Spanish in the classroom?
- If you could have more of something in the Spanish classroom, what would it be?
- If you could have less of something in the Spanish classroom, what would it be?
- What makes you feel nervous in the Spanish class?
- Have you studied abroad in a Spanish speaking country?
- Did you stay with a native family?
- Did you take a Spanish class while there?
- What experiences were the most useful for you to learn Spanish? Why?


## Autonomy and Contextual Factors

- How would you describe yourself as a learner of Spanish?
- How do your family support you in learning Spanish?
- What role do films, music and the Internet play in your Spanish learning outside the classroom?
- What opportunities do you have to use Spanish outside the classroom?


## Motivation

- What are your reasons for learning Spanish?
- What obstacles are there in your way when it comes to learning Spanish? How do you overcome them?


## Vision for the Future

- How important is it for your future to be a successful learner of Spanish? Why?
- Where do you see yourself when you graduate from Chattanooga State? Why? (Are they going into the job market? Transferring to a four-year institution? If so, which one?)
- Where do you see yourself in five years?


## Third qualitative instrument: second interview prompts

## Enrollment

- Is Spanish a requirement for your degree?
- Why did you enroll in Spanish class?
- Do you think language requirements are effective?
- Do you plan to continue taking Spanish courses?
+ follow ups based on subject responses


## Attitudes

- Do you have any Spanish-speaking friends or relatives?
- Do you think Spanish is useful in Tennessee? How?
- Do you think Hispanic Americans are sincere and honest?
- Do they bring drugs and gangs with them?
- Are they a burden for the US economy?
- How many of them do you think are undocumented?
- Do you believe they are, for the most part, hardworking?
- Should they assimilate to mainstream American culture?
- Would you like to know more Hispanic Americans?
- Do you think Hispanic culture is an integral part of American culture?
- Do you believe the increasing presence of the Spanish language in the United States is a threat to American culture?
- Would you like to know more Hispanics?
+ follow ups based on subject responses


## Motivation

- Does your family believe you must learn Spanish to be a fully educated person?
- Is learning Spanish necessary because people around you expect you to do so?
- Do you believe not learning Spanish would hurt your future career?
- Do your friends believe learning Spanish is important?
- Do you want to do well in Spanish class to please your friends or relatives?
- Do you want to do well in Spanish class to please your teacher?
+ follow ups based on subject responses


## Statistical operations results

Experiment one

ATS instrument Cronbach's alpha coefficient: . 726
ATH instrument Cronbach's alpha coefficient: . 852
Experimental group ATS results. Average: 4.16; Standard deviation: 0.63
Experimental group ATH results. Average: 4.13; Standard deviation: 0.52
Control group ATS results. Average: 3.63; Standard deviation: 0.67
Control group ATH results. Average: 3.53; Standard deviation: 0.68

## Experimental Group vs Control Group ATS

Chi-square test: $\mathrm{X}^{2}=6.86 ; \mathrm{p}=.0088$
Fisher's exact test: $\mathrm{p}=.0124$
Logistic regression: Coefficient $=1.2104 ;$ Standard error $=0.3038 ; \mathrm{p}<.001$; Odds ratio $=3.3547 ; 95 \%$ confidence interval $=(1.8496,6.0846)$

## Experimental group vs Control group ATH

Chi-square test: $\mathrm{X}^{2}=9.14 ; \mathrm{p}=.0025$
Fisher's exact: p < . 001
Logistic regression: Coefficient $=1.7085$; Standard error $=0.3719 ; \mathrm{p}<.001$; Odds ratio $=5.5190 ; 95 \%$ confidence interval $=(2.6625,11.4403)$

Experiment two

FLSE instrument Cronbach's alpha coefficient: . 547
Modified FLSE instrument Cronbach's alpha coefficient: . 767
FLPE instrument Cronbach's alpha coefficient: . 857
FLCA instrument Cronbach's alpha coefficient: . 907

Experimental group FLSE results. Average: 4.18; Standard deviation: 0.56
Experimental group FLPE results. Average: 3.95; Standard deviation: 0.74
Experimental group FLCA results. Average: 3.21; Standard deviation: 0.94
Experimental group Strictness results. Average: 3.88; Standard deviation: 1.00
Experimental group Friendliness results. Average: 4.71; Standard deviation: 0.49
Experimental group Spanish usage results. Average: 4.5; Standard deviation: 0.59
Experimental group Caring results. Average: 4.24; Standard deviation: 0.73
Experimental group Helpfulness results. Average: 4.6; Standard deviation: 0.49
Association between FLSE and FLPE
Pearson's correlation: $\mathrm{r}=.8137 ; \mathrm{p}<.001$
Spearman's Rho: $\mathrm{r}_{\mathrm{s}}=.832 ; \mathrm{p}<.001$
Association between FLSE and FLCA
Pearson's correlation: $r=-.1833 ; p=.169$
Spearman's Rho: $\mathrm{r}_{\mathrm{s}}=-.113 ; \mathrm{p}=.3966$
Association between FLPE and FLCA
Pearson's correlation: $\mathrm{r}=-.2387 ; \mathrm{p}=.072$
Spearman's Rho: $\mathrm{r}_{\mathrm{s}}=-.191 ; \mathrm{p}=.1519$
Association between FLSE and Strictness
Chi-square test: $\mathrm{X}^{2}=1.3873 ; \mathrm{p}=.2388$
Fisher's exact test: $\mathrm{p}=.2882$
Pearson's correlation: $\mathrm{r}=.1073 ; \mathrm{p}=.4240$
Spearman's Rho: $\mathrm{r}_{\mathrm{s}}=.1802 ; \mathrm{p}=.1758$
Association between FLPE and Strictness
Chi-square test: $\mathrm{X}^{2}=1.2488 ; p=.2638$
Fisher's exact test: $\mathrm{p}=.3183$

Pearson's correlation: $\mathrm{r}=-.0789 ; \mathrm{p}=.5605$
Spearman's Rho: $r_{s}=-.0492 ; p=.7138$

## Association between FLCA and Strictness

Chi-square test: $\mathrm{X}^{2}=0.0636 ; \mathrm{p}=.8009$
Fisher's exact test: $\mathrm{p}=1$
Pearson's correlation: $\mathrm{r}=-.0373 ; \mathrm{p}=.7827$
Spearman's Rho: $\mathrm{r}_{\mathrm{s}}=-.0206 ; \mathrm{p}=.8776$
Association between FLSE and Friendliness
Chi-square test: $\mathrm{X}^{2}=6.7142 ; \mathrm{p}=.0095$
Fisher's exact test: $\mathrm{p}=.0172$
Pearson's correlation: $\mathrm{r}=.4709$; $\mathrm{p}<.001$
Spearman's Rho: $\mathrm{r}_{\mathrm{s}}=.4764 ; \mathrm{p}<.001$
Association between FLPE and Friendliness
Chi-square test: $\mathrm{X}^{2}=3.6874 ; \mathrm{p}=.0548$
Fisher's exact test: $\mathrm{p}=.0911$
Pearson's correlation: $\mathrm{r}=.3352 ; \mathrm{p}=.0101$
Spearman's Rho: $r_{s}=.3830 ; p=.003$
Association between FLCA and Friendliness
Chi-square test: $\mathrm{X}^{2}=0.6022 ; \mathrm{p}=.4377$
Fisher's exact test: $\mathrm{p}=.5416$
Pearson's correlation: $\mathrm{r}=-.1054 ; \mathrm{p}=.4328$
Spearman's Rho: $\mathrm{r}_{\mathrm{s}}=-.091 ; \mathrm{p}=.4966$

## Association between FLSE and Spanish Usage

Chi-square test: $\mathrm{X}^{2}=3.9017 ; \mathrm{p}=.0482$
Fisher's exact test: $\mathrm{p}=.071$
Pearson's correlation: $\mathrm{r}=.2698 ; \mathrm{p}=.0404$

Spearman's Rho: $\mathrm{r}_{\mathrm{s}}=.3305 ; \mathrm{p}=.0112$

## Association between FLPE and Spanish Usage

Chi-square test: $\mathrm{X}^{2}=3.9017 ; \mathrm{p}=.0482$
Fisher's exact test: $\mathrm{p}=.071$
Pearson's correlation: $\mathrm{r}=.2198 ; \mathrm{p}=.0970$
Spearman's Rho: $r_{s}=.2374 ; p=.0727$

## Association between FLCA and Spanish Usage

Chi-square test: $\mathrm{X}^{2}=2.9233 ; \mathrm{p}=.0873$
Fisher's exact test: $\mathrm{p}=.1133$
Pearson's correlation: $\mathrm{r}=.1602 ; \mathrm{p}=.2296$
Spearman's Rho: $\mathrm{r}_{\mathrm{s}}=.1719 ; \mathrm{p}=.197$

## Association between FLSE and Care

Chi-square test: $\mathrm{X}^{2}=5.8579 ; \mathrm{p}=.0155$
Fisher's exact test: $\mathrm{p}=.0296$
Pearson's correlation: $\mathrm{r}=.4716 ; \mathrm{p}<.001$
Spearman's Rho: $\mathrm{r}_{\mathrm{s}}=.469 ; \mathrm{p}<.001$

## Association between FLPE and Care

Chi-square test: $\mathrm{X}^{2}=4.4036 ; \mathrm{p}=.0358$
Fisher's exact test: $\mathrm{p}=.0672$
Pearson's correlation: $\mathrm{r}=.5387$; $\mathrm{p}<.001$
Spearman's Rho: $\mathrm{r}_{\mathrm{s}}=.4931 ; \mathrm{p}<.001$
Association between FLCA and Care
Chi-square test: $\mathrm{X}^{2}=2.7982 ; \mathrm{p}=.0943$
Fisher's exact test: $\mathrm{p}=.1116$
Pearson's correlation: $\mathrm{r}=-.115 ; \mathrm{p}=.39$
Spearman's Rho: $r_{s}=-.0229 ; p=.8643$

## Association between FLSE and Helpfulness

Chi-square test: $\mathrm{X}^{2}=18.6861 ; \mathrm{p}<.001$
Fisher's exact test: $\mathrm{p}<.001$
Pearson's correlation: $r=.6816 ; p<.001$
Spearman's Rho: $\mathrm{r}_{\mathrm{s}}=.7077 ; \mathrm{p}<.001$

## Association between FLPE and Helpfulness

Chi-square test: $\mathrm{X}^{2}=13.7622 ; \mathrm{p}<.001$
Fisher's exact test: $\mathrm{p}<.001$
Pearson's correlation: $\mathrm{r}=.5501 ; \mathrm{p}<.001$
Spearman's Rho: $r_{s}=.6192 ; p<.001$

## $\underline{\text { Association between FLCA and Helpfulness }}$

Chi-square test: $\mathrm{X}^{2}=4.5002 ; \mathrm{p}=.0339$
Fisher's exact test: $\mathrm{p}=.057$
Pearson's correlation: $\mathrm{r}=.0256 ; \mathrm{p}=.8487$
Spearman's Rho: $\mathrm{r}_{\mathrm{s}}=.0537 ; \mathrm{p}=.6885$

## Experiment three

ISM instrument Cronbach's alpha coefficient: . 878
OSM instrument Cronbach's alpha coefficient: . 702

Experimental group ISM results. Average: 3.92; Standard deviation: 0.85
Experimental group OSM results. Average: 2.375; Standard deviation: 0.71
Association between ISM and FLSE
Chi-square test: $\mathrm{X}^{2}=0.589 ; \mathrm{p}=.4428$
Fisher's exact test: $\mathrm{p}=.5015$
Pearson's correlation: $r=.2777 ; p=.0353$

Spearman's Rho: $\mathrm{r}_{\mathrm{s}}=.3021 ; \mathrm{p}=.0211$

## Association between ISM and FLPE

Chi-square test: $\mathrm{X}^{2}=2.1092 ; \mathrm{p}=.1464$
Fisher's exact test: $\mathrm{p}=.1789$
Pearson's correlation: $\mathrm{r}=.3938 ; \mathrm{p}=.0022$
Spearman's Rho: $\mathrm{r}_{\mathrm{s}}=.3734 ; \mathrm{p}=.0039$

## Association between ISM and FLCA

Chi-square test: $\mathrm{X}^{2}=0.8634 ; \mathrm{p}=.3528$
Fisher's exact test: $\mathrm{p}=.3808$
Pearson's correlation: $\mathrm{r}=-.1218 ; \mathrm{p}=.3616$
Spearman's Rho: $\mathrm{r}_{\mathrm{s}}=-.0199 ; \mathrm{p}=.8819$

## Association between OSM and FLSE

Chi-square test: $\mathrm{X}^{2}=1.3873 ; \mathrm{p}=.2389$
Fisher's exact test: $\mathrm{p}=.2882$
Pearson's correlation: $\mathrm{r}=-.2609 ; \mathrm{p}=.0478$
Spearman's Rho: $\mathrm{r}_{\mathrm{s}}=-.3031 ; \mathrm{p}=.0207$

## Association between OSM and FLPE

Chi-square test: $\mathrm{X}^{2}=0.992 ; \mathrm{p}=.3192$
Fisher's exact test: $\mathrm{p}=.4817$
Pearson's correlation: $\mathrm{r}=-.1045 ; \mathrm{p}=.4372$
Spearman's Rho: $r_{s}=-.1898 ; p=.1535$

## Association between OSM and FLCA

Chi-square test: $\mathrm{X}^{2}=0.0636 ; \mathrm{p}=.8009$
Fisher's exact test: $\mathrm{p}=1$
Pearson's correlation: $\mathrm{r}=-.0934 ; \mathrm{p}=.4827$
Spearman's Rho: $\mathrm{r}_{\mathrm{s}}=-.0493 ; \mathrm{p}=.7127$

## Association between ISM and persistence

Chi-square test: $\mathrm{X}^{2}=0.0288 ; \mathrm{p}=.8653$
Fisher's exact test: $\mathrm{p}=1$
Logistic regression: Coefficient $=0.3851 ;$ Standard error $=0.2858 ; p=.1778$; Odds ratio $=1.4698 ; 95 \%$ confidence interval $=(0.8395,2.5734)$

## Association between ISM and final grade

Pearson's correlation: $\mathrm{r}=-.0718 ; \mathrm{p}=.5963$
Spearman's Rho: $\mathrm{r}_{\mathrm{s}}=-.0277 ; \mathrm{p}=.8365$

## Association between ISM and proficiency increase

Pearson's correlation: $\mathrm{r}=.0193 ; \mathrm{p}=.8815$
Spearman's Rho: $\mathrm{r}_{\mathrm{s}}=.0615 ; \mathrm{p}=.6466$

## Association between OSM and persistence

Chi-square test: $\mathrm{X}^{2}=0.9293 ; \mathrm{p}=.335$
Fisher's exact test: $\mathrm{p}=.3607$
Logistic regression: Coefficient $=-0.2467$; Standard error $=0.3332 ; p=.4591$; Odds ratio $=0.7814 ; 95 \%$ confidence interval $=(0.4067,1.5014)$

## Association between OSM and final grade

Pearson's correlation: $\mathrm{r}=-.1287 ; \mathrm{p}=.3345$
Spearman's Rho: $\mathrm{r}_{\mathrm{s}}=-.0773 ; \mathrm{p}=.5642$

## Association between OSM and proficiency increase

Pearson's correlation: $r=-.1646 ; p=.2158$
Spearman's Rho: $r_{s}=-.1414 ; p=.2895$

## Experiment four

## Association between FLSE and persistence

Chi-square test: $\mathrm{X}^{2}=10.1786 ; \mathrm{p}=.0014$
Fisher's exact test: $\mathrm{p}=.0031$
Logistic regression: Coefficient $=1.9857$; Standard rrror $=0.6697 ; p=.003$; Odds ratio $=7.2839 ; 95 \%$ confidence interval $=(1.9603,27.0650)$

Association between FLSE and final grade
Pearson's correlation: $r=.2448 ; p=.064$
Spearman's Rho: $r_{s}=.267 ; p=.0427$

## $\underline{\text { Association between FLSE and proficiency increase }}$

Pearson's correlation: $\mathrm{r}=.1918 ; \mathrm{p}=.1775$
Spearman's Rho: $\mathrm{r}_{\mathrm{s}}=.2071 ; \mathrm{p}=.1187$
Association between FLPE and persistence
Chi-square test: $X^{2}=5.8312 ; p=.0157$
Fisher's exact test: $\mathrm{p}=.0262$
Logistic regression: Coefficient $=0.9525 ;$ Standard error $=0.4168 ; p=.0223$; Odds ratio $=2.5921 ; 95 \%$ confidence interval $=(1.1452,5.8668)$

## $\underline{\text { Association between FLPE and final grade }}$

Pearson's correlation: $\mathrm{r}=.2436 ; \mathrm{p}=.0653$
Spearman's Rho: $\mathrm{r}_{\mathrm{s}}=.2732 ; \mathrm{p}=.038$
Association between FLPE and proficiency increase
Pearson's correlation: $\mathrm{r}=.1703 ; \mathrm{p}=.2321$
Spearman's Rho: $\mathrm{r}_{\mathrm{s}}=.1385 ; \mathrm{p}=.2997$

## Association between FLCA and persistence

Chi-square test: $\mathrm{X}^{2}=0.592 ; \mathrm{p}=.4416$
Fisher's exact test: $\mathrm{p}=.5782$

Logistic regression: Coefficient $=-0.1589 ;$ Standard Error $=0.2975 ; \mathrm{p}=.5933$; Odds ratio $=0.8531 ; 95 \%$ confidence interval $=(0.4762,1.5283)$

Association between FLCA and final grade
Pearson's correlation: $\mathrm{r}=-.099 ; \mathrm{p}=.4596$
Spearman's Rho: $\mathrm{r}_{\mathrm{s}}=-.1145 ; \mathrm{p}=.3918$
Association between FLCA and proficiency increase
Pearson's correlation: $\mathrm{r}=.047$; $\mathrm{p}=.7432$
Spearman's Rho: $\mathrm{r}_{\mathrm{s}}=.0249 ; \mathrm{p}=.8529$

## Discussion

Association between foreign language requirement and decision to enroll
Chi-square test: $\mathrm{X}^{2}=0.78 ; \mathrm{p}=.3771$
Fisher's exact test: $\mathrm{p}=.4705$


[^0]:    ${ }^{1}$ Chattanooga State is an educationally purposeful community where faculty, staff, and students share academic goals and strive for high standards that lead to the attainment of degrees and certificates, meaningful careers, and a committed citizenry of lifelong learners.

