

**Remediation in Paradise:  
(Mis)labeling Low English Proficiency Students at UPRM**

By

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## **Abstract**

This research project is a secondary data analysis of the characteristics and effects of English language remediation at the University of Puerto Rico – Mayagüez from the academic years 2008-09 through 2013-14. Using concrete data obtained from the university, the remedial course INGL 0066 and basic course INGL 3101 were compared via descriptive factors including pre-admission test scores (ESLAT and IGS), public versus private secondary education, and pass and failure outcomes for over five thousand student grades. The research questions sought to discover if remedial English was effective or ineffective, gain an understanding of the remedial and non-remedial populations, study predictors of remediation, and investigate statistical differences between public and private secondary education. Results show that remediation effects were negligible, particularly as remedial-labeled students who took remedial English experienced the same pass/fail outcome in the subsequent basic English course as those remedial-labeled students who went directly into said basic English course without remediation.

## **Resumen**

Esta investigación es un estudio de análisis de datos secundaria acerca de las características y efectos de la remediación en inglés en el Universitario de Puerto Rico – Mayagüez desde los años académicos 2008-09 a 2013-14. Usando datos concretos del universitario, el curso remedial INGL 0066 y curso básico INGL 3101 fueron comparados con factores descriptivos incluidos resultados de pruebas pre-admisión (ESLAT e IGS), educación secundaria privada versus la pública, y resultados de pasar y fracasar por más que cinco mil notas de estudiantes. Las preguntas de investigación buscaban descubrir si remediación en inglés era efectivo o inefectivo, adquirir un entendimiento de las poblaciones remedias y no remedias, estudiar predictores de remediación, e investigar diferencias estadísticas entre la enseñanza secundaria privada y pública. Los resultados demostraron que los efectos de remediación eran despreciables, particularmente como los estudiantes etiquetados como remediadores vieron los mismos resultados de pasar y fracasar en el curso subsiguiente de inglés básico como los estudiantes etiquetados como remediadores quienes entraron directamente al dicho curso básico de inglés sin remediación.

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## Chapter 1: Introduction

The word ‘university’ is derived from the Latin word *universitas*, meaning the whole, or universe in its entirety (Phillipson, 2009). In the university as a whole, the participants and environment are in a working relationship to create and build knowledge without constraints. Yet in a world where politics and economics are increasingly at play in the university, the associative factors must be considered and studied. Especially notable is the influence of language in higher education. English continues to play an ever increasing role (politically, economically, and otherwise) in the world, and thus in the whole of the university in pursuit of its acquisition. As such, English education is expanding at rates never seen before in higher education (Shohamy, 2013). A study by Wächter and Maiworm cited in Doiz, Lasagabaster, and Sierra (2013) notes a 340% increase in the number of Bachelors and Masters programs taught entirely in English in Europe from 2002 to 2007; a trend that is prevalent worldwide. As this worldly influence of English meets the universe of the university, so too do politics and economics become ever more complex.

One critical area where politics and economics meet English in higher education is in remedial courses. Remedial courses in higher education, sometimes obligatory and at other times left to student decision, are meant to reteach, reinforce, or add new knowledge that the institution deems necessary for a student to have in order to start with basic coursework. Remediation has been around since 1630 when Harvard College assigned tutors to students they deemed underprepared, while the first remediation program offered courses in reading, writing, and mathematics at the University of Wisconsin in 1849 (Breneman and Haarlow, 1998). Despite such a long history, the field of remediation is crowded not by studies, but by a prevalent cry for studies. Phillipson (2009) and Shohamy (2013) note the need for research into the costs and

benefits of English medium instruction in higher education, and this need is further epitomized as the focus narrows to English in remediation in higher education.

Puerto Rico presents an interesting situation. With its historical confrontations with the United States, language and education are situated in a peculiar context that needs investigation. Pousada (1996) reflects that English is too common for Puerto Rico to be an EFL society, and yet English is highly non-dominant in the speech community at large so it cannot be considered ESL either. Then add the fact that the higher education system is based on the U.S. education system and we are faced with an interesting context in which few studies exist concerning English in higher education and zero studies exist on English remediation in higher education in Puerto Rico.

Further focus of the research problem then leads to English remediation at a specific university in Puerto Rico, the University of Puerto Rico – Mayagüez (UPRM). In recent years, the English remediation policies have seen drastic changes, from an obligatory course based on entrance exam scores, to a non-credit institute, to not offering remediation at all. Throughout the remediation history at the UPRM, there have been zero studies concerning English remediation. As noted above, policies and decisions in this field are often made with politics and economics in mind, in addition to factors such as years of experience and assumptions made of students enrolling in remedial courses. As such, this study will fill a void in the research field and aims to educate university administrators of the characteristics and effectiveness of remedial English courses. By way of reviewing the literature of English in Puerto Rico, related language and education policies, the literature of remediation, and UPRM-specific data, a further objective of this study is to influence university administration in policy-making decisions concerning English remediation. Educators, particularly university-level English educators, will benefit from

this study in an understanding of remediation, English remediation at UPRM, student population, and perhaps add to their knowledge of the context of English in Puerto Rico.

The review of literature will help one to gain an understanding of English in Puerto Rico, language and education policies, and remediation in higher education. That is to say an understanding of various characteristics of English in Puerto Rico, language policies, and remediation in higher education are needed in order to contextualize English remediation in higher education in Puerto Rico. Following such an objective, the data from this study will show the characteristics and effectiveness of remedial English courses at UPRM. The study is also longitudinal, displaying data from the years 2008 to 2013. As the first study of English remediation in higher education in Puerto Rico and the first longitudinal study of its kind, the analysis of the data will reveal the characteristics and effects of remediation during the different remediation periods at the UPRM. Further analysis in light of a sociocultural theoretical framework will provide an underlying perspective of social and cultural effects on language learning and remediation.

### **Context of the Study**

The present study is situated at the University of Puerto Rico – Mayagüez. Remedial English courses have been offered at UPRM for many years, with this longitudinal study focusing on a six-year period from the academic years 2008-09 to 2013-14. Data were obtained from the university's Office of Institutional Research and Planning (OIIP according to its Spanish translation). Horario B, the university's course statistics program, along with department records were used for reference. Data for the first (i.e. fall) semesters of each academic year for students originating at UPRM were included in the study, as this provides a congruent population of students with which to compare and analyze. Incoming students to the university in the fall

semester would arrive directly from secondary education and thus not have had previous time in higher education. The subsequent table illustrates the periods included in this study, with an explanation to follow.

Table 1.1: Breadth of study – Offering of remedial INGL 0066

Period	Academic Year	Fall Offering	Summer Offering	Notes
Status Quo	2008-09	Regular	Intensive	
Status Quo	2009-10	Regular	Intensive	
Status Quo – Fall Institute – Summer	2010-11	Regular	Institute	Certification JA 10-11-129 in April of 2011
Institute	2011-12	Institute	Institute	USDA Grant to take institute for free in March of 2012
Exit Exam	2012-13	Not offered	Not offered	
Exit Exam	2013-14	Not offered	Not offered	

Each period was given a name by the author for reference to congruent academic periods. *The Status Quo period* witnessed the offering of remedial English course, INGL 0066, as a regular course during the fall semesters and an intensive course during the summer. Remediation in this pattern had existed at UPRM since 1980. Content and regulations of said remediation changed greatly over the years, and the academic years 2008-09 to 2010-11 saw a period of uniform content and regulations with which a comparison to non-remedial years is possible. In the second (i.e. spring) semester of 2010-11, Certification JA 10-11-129 was passed by the administration which made all remedial courses henceforth offered through the División de Educación Continua y Estudios Profesionales (DECEP, or Division of Continuing Education and Professional Studies by its English translation). Courses offered through DECEP are outside the university, thus students cannot use BECA Pell grants to pay for the course. BECA Pell grants

are federal grants given to students based on economic need and do not need to be paid back after graduation (in Puerto Rico, these grants are commonly referred to simply as *beca*, singular, or plural, *becas*).

Thus began the period given the title of *Institute*. From the first summer semester of 2010-11 through the following summer semesters of 2011-12, remedial INGL 0066 was not offered as a regular course; rather, students who scored 469 or below on the English as a Second Language Assessment Test (ESLAT) pre-admission entrance exam (explanation forthcoming) could effectively pass INGL 0066 by either taking the summer institute course and/or taking the exit exam. Students did not receive course credit for this institution. Upon successful passing of the exit exam, students were allowed into basic English, INGL 3101. A comparison of the Institute period and analysis of data is not included in present study, as data is not reliable, thus not upholding validity. Furthermore, admission numbers during the Institute period were very low; hence, statistical comparisons would not appropriately reflect the larger populations of INGL 0066 and INGL 3101. A grant given by the USDA in March of the academic year 2011-12 allowed students to take the summer institutes for free; however, admission numbers were still critically low.

A transition initiated by the English Department and approved by the administration saw the elimination of remedial (or pre-basic, as is referred to at UPRM) English, both as a course and as an institute. Thus began the *Exit Exam period* beginning in the fall semester of 2012-13 and continuing to the present. In the present period, students take a departmental examination until they pass with a score of 70% or better. Upon passing this exam, students are enrolled in basic English, INGL 3101. The Exit Exam is similar to the ESLAT, which is explained in the pre-admission examinations section. Appendix A provides an example of a previous Exit Exam.

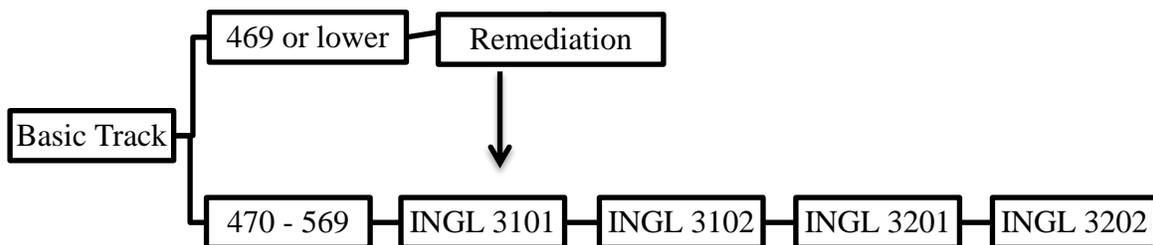
Lastly, additional characteristics of these periods and initiation by the English Department to eliminate INGL 0066 are further contextualized in appendices B and C. Appendix B curtails the request to eradicate the aforementioned Certification JA 10-11-129. Further characteristics are offered in said appendix, including the monetary costs to students and the low enrollment numbers. Appendix C offers justification for the department’s initiation and desire to study the context of remedial and basic English at UPRM.

**Student Context**

Students in the present study are located in the basic English track at UPRM. Students who score 569 or lower on the ESLAT are placed in the basic track. Those who score 469 or lower on the ESLAT are subject to remediation, the nature of such remediation depends upon the aforementioned periods, be it a mandatory course during Status Quo to a summer course and exit exam in Institute period to the present Exit Exam period with no course offering and a mandatory exam.

Students who score between 470 and 569 on the ESLAT are placed directly into INGL 3101, the first course of the basic English sequence. For visualization of this track, the following table is provided.

Figure 1.1: Basic English track at UPRM



Unlike the examinations detailed below, assessment and instruction in INGL 3101 incorporates writing along with speaking, listening, and reading. The course aims to develop

students' abilities to understand written and spoken English and includes attention to vocabulary and grammar. A typical INGL 3101 course is evaluated by the following means: 10% online laboratory (Tell Me More), 30% unit exams, 20% mandatory departmental final exam, and 40% other assignments (homework , written assignments, oral reports/presentations, group work, and quizzes). The examinations do not have to be solely discrete grammar; they can and often do include short answer written portions. INGL 3101 is a prerequisite for the next course in the basic English sequence, INGL 3201, a course which emphasizes the essay process and reading comprehension. Appendix D provides a syllabus from INGL 3101.

### **Pre-admission Examinations**

Two pre-admission examination scores are critical for placement of students into English remediation or non-remediation at UPRM. Índice General de Solitud (IGS, or General Application Index by its English translation) is a score that combines a student's GPA with their Verbal Aptitude (in Spanish) and Mathematics Aptitude score from the College Board pre-admission examination. This score is weighted 50% GPA, 25% Verbal Aptitude, and 25% Mathematic Aptitude. The resulting IGS score determines if the student is eligible for their chosen major, as year to year each department sets their own minimum score for admittance into their program.

The English as a Second Language Assessment Test (ESLAT, also sometimes referred to as CEEB at the university) is a pre-admission examination for speakers of English as a second language akin to the SAT. In the context of Puerto Rico, the ESLAT score is the English portion of the IGS examination. As previously noted, students who score 569 or below on this part of the IGS examination are placed in the basic English track at UPRM, with students who score 469 or below subject to remediation.

As previously noted, the Exit Exam at UPRM and the ESLAT are similar examinations. Both are norm-referenced standardized tests which assess high frequency vocabulary words, grammar, and reading comprehension. There is no written portion. Appendix A provides an example of an Exit Exam.

With examination and analysis of descriptive data from two pre-admission examinations and pass/fail rates for remedial English and basic English for over five thousand student results, the study fills a gap in higher education remediation. Literature on remediation notes a severe lack of data in remedial education, with many lingering questions on the effectiveness or ineffectiveness of remedial education (Saxon and Boylan, 2001). Merisotis and Phipps (2000) as quoted in Attewell, Lavin, Domina, and Levey (2006) support this notion by asserting, “[r]esearch about the effectiveness of remedial education programs has typically been sporadic” (p. 887). Results of this study will supply administrators, departments, professors, students, and the field of remediation in higher education with knowledge to make informed decisions concerning English remediation.

## Chapter 2: Literature Review and Theoretical Framework

### Sociohistorical Context

From 1898 to 1949, English was seen as the vehicle for “Americanization” of Puerto Rico, and also as the means to foster a bilingual society (Algren de Gutiérrez, 1987). With low literacy rates and low numbers of school admissions, Morris (1995) notes that the educational system was at the point of attack for politics. U.S. officials routinely insisted that English is the way forward for Puerto Rico, while reform on the island witnessed mixed views and claims. In fact, the debate and use over English in Puerto Rico was so intense that, “...a person’s position on school language was taken to represent his or her political orientation” (Morris, p. 31, 1995). Furthermore, Algren de Gutiérrez (1987) echoes that study after study demonstrates that language is linked with identity in Puerto Rico. With each policy enactment one can witness the political and identity struggles, often at the expense of the education system.

### English and Language Policies in Puerto Rico

From 1898 to 1949 there were seven official language policies that impacted public school teaching on the island of Puerto Rico. Adapted from Algren de Gutiérrez (1987) and Pousada (2008), the following table illustrates the changes to the language policies in Puerto Rico, which were named after the respective Commissioner of Education.

Table 2.1: History of language policies in Puerto Rico

Policy Name	Effective Years	Elementary School	Middle & High School
Eaton-Clark	1898 – 1900	English	English
Brumbaugh	1900 – 1903	Spanish with English as a subject	English with Spanish as a subject
Faulkner-Dexter	1903 – 1917	English with Spanish as a subject	English with Spanish as a subject
Miller-Huyke	1917 – 1934	Grades 1-4: Spanish with English as a subject	English

		Grade 5: Half the core subjects in Spanish, the other half in English Grades 6-8: English	
Padín	1934 – 1937	Spanish with English as a subject	English with Spanish as a subject
Gallardo	1937 – 1945	Grades 1-2: Spanish with English as a subject Grades 3-8: Both used in various core subjects; Increasing emphasis and time allowed for English *Note: In 1942 the Padín policy was reinstated	English with Spanish as a subject *Note: In 1942 the Padín policy was reinstated
Villaronga	1949 – present	Spanish with English as a suggested, and sometimes mandatory, subject.	Spanish with English as a suggested, and sometimes mandatory, subject.

After several plebiscite bills failed in U.S. Congress, the Puerto Rican legislature passed a monumental law concerning the relationship of Spanish and English in 1991. The new law overturned the 1901 Official Languages Act and mandated Spanish as the official language of Puerto Rico, with English as a mandatory subject in schools (Morris, 1995). The bill saluted English as an instrumental tool and did not alter the educational language policy (Pousada, 1996). Two years later, the new governor instated Law Number 1, a language law reinstating the original 1901 law (Pousada, 2008). Following the law, another plebiscite bill arose in contention. Morris (1995) continues to note the issue of language as a key issue in the battle, as the division between statehood supporters (who generally favor expanded use of English in the school system) and commonwealth supporters (who generally argue that a statehood run government would lead to the loss of Spanish) remains nearly through the present day (Pousada, 2008).

In conclusion on the history of English in Puerto Rico, there has been a movement against English for various reasons. Spanish is an integral, founding part of Puerto Rican culture. When factors including, but not limited to, policies, administrators, and politics tried to impose English on top of or with disregard to Spanish, the unsteady relationship between the languages and cultures became clear. English is viewed favorably on the island, most notably in terms of its instrumental value and high status and worldly prestige. Any attempts to override or overthrow the foundations of Spanish are unsuccessful and indeed unhealthy for the island.

### **Language Planning and Policy**

The movement against English in Puerto Rico involved many different language policies as well as different planning processes. The policies ranged from drastic changes, such as the shift in medium of instruction between the Brumbaugh policy and the Faulkner-Dexter policy, to relative uniformity, such as the use of English as the medium of instruction in high school up until the current policy. Following the review of the history, the discussion then warrants examination of the literature concerning precisely that, language planning and policies (LPP).

Pousada (2008, p. 702) defines language policy as, “the official designation of particular languages for educational or governmental functions.” Language policy constitutes language planning, which Tollefson (2008, p. 3) delineates as the “deliberate efforts to affect the structure, function, and acquisition of languages.” When instituted in an educational setting, language planning results in a language policy which, “constitute[s] guidelines or rules shaping language structure, language use, and language acquisition” (Tollefson, 2008, p. 3). May (1997), quoted in Wright (2008, p. 243), offers further direction in that a school language policy is, “a policy document aimed at addressing the particular language needs of a school” which must organize a planning process both inside and outside the educational institution.

Among other sources, Resnick (1993) declares that the educational language policies in Puerto Rico have failed. The policies have failed throughout history and continue to fail under the current policy. Investigation of the LPP field is a young science, yet the progression of the literature in the past twenty years reflects changes and improvements in language planning and language policy. The following sections will look into LPP issues, with specific ties to Puerto Rico.

### **Politics in Language Planning and Policy**

Resnick (1993) backs the claim that LPP in Puerto Rico has failed due, in one major area, to politics. Specifically he notes concerns of the island's debated political status and the ongoing, and often unknown, clash between nationism and nationalism in relation to language. Puerto Rico draws its cultural and language roots from its history with Spain; thus, Spanish has been well-established as a non-negotiable part of Puerto Rican culture (Pousada, 1996). Meanwhile the politics of the United States have consistently tried to impose imperialistic language issues into Puerto Rican culture, via assimilation through English. Hence, Puerto Rico and the United States approach the language from two different perspectives. The U.S. has desired political unification, a nationism approach, whereas Puerto Rico aligns from a sociocultural language need, a nationalism approach (Resnick, 1993). Puerto Rico does not derive its nationalism from the U.S.; consequently, the different nationism and nationalism approaches towards language clash.

Politics in language planning and policies, especially government-driven planning and policies as has been the historic case in Puerto Rico, can have a detrimental effect. In Puerto Rico this has led to the movement against learning English (Resnick, 1993). Ricento and Hornberger (1996) embolden this notion in observing that government interventions in language

generally have nonlinguistic motivations. The authors further support the historical problems of LPP by noting that archaic research in the field concerned nation building, as is the case with Puerto Rico, but current research treats language in a global reality. Additionally, Ricento and Hornberger (1996) note that governments are rarely as systematic in LPP as institutions. Government LPP yields mixed results at best (Ricento and Hornberger, 1996). Pousada (1996) posits that Puerto Rico's unique case adds an even further complication to politics in LPP in that the division of political parties and the continuously contested political status work against LPP. The literature calls for a defined and resolved political status in order to improve LPP (Pousada, 1996 and 2008, and Resnick, 1993). Until then, government-driven LPP will continue to be unbeneficial.

The political issues discussed by May (2008) further allude to the special nature of language in Puerto Rico. The island has the power to choose a language policy, as well as individual institutional control of language policies. This creates a precarious balance of whether Spanish is used and taught at the expense of English, or in addition to the maintenance of English. This decision is often derived from politics and can have vital effects in LPP (May, 2008). Ultimately, Pousada (1996) argues that Puerto Rico will need education in both Spanish and English. Yet the problems are not all answered there, as May (2008) proceeds to note the decision also involves a critical balance between social cohesion and the acknowledgment of cultural and linguistic pluralism. As has been noted, the United States has pushed for cohesion via Americanization, while Puerto Rico is an island of great cultural and linguistic pluralism. Puerto Rico must overcome the political hindrances that have been practiced throughout its history with the United States in order to appropriately use the rich cultural and linguistic elements for a successful LPP.

## **Peculiarities for Language Planning and Policy in Puerto Rico**

The ties between Puerto Rico and the United States have reached back over one hundred years. During that time, language has always been a forefront issue. Prior to the current policy, language policies in Puerto Rico have been directed by the United States. In light of Puerto Rico moving forward with language, however, the literature indicates peculiar advice for the island; the United States may not be the best example to follow for LPP.

Straightaway, the United States does not generally support or promote bilingualism; Americans are “socialized to believe that the unity and cultural integrity of the U.S. cannot abide cultural, including linguistic, pluralism” (Ricento and Hornberger, 1996). The two authors add that bicultural students are discouraged and actively prevented from using their native language in the academic environment. Despite some movements that supported languages other than English, the current policies and practices hinder successful non-English language education and use of other languages (Ricento and Wright, 2008). The United States is an opponent to pluralism (May, 2008), yet Puerto Rico recognizes pluralism through the instrumental value of English, in connection with the status of Spanish (Pousada, 1996 and 2008).

Although Puerto Rico recognizes the importance of English, for avenues such as instrumental value and globalization, there has been a large, covert movement against the teaching of English in Puerto Rico (Resnick, 1993 and Pousada, 1996). Pousada (1996) and Resnick (1993) both agree that this covert movement against English is strictly public and social in nature. While learning English is viewed favorably, societal bilingualism is not (Pousada, 2008), thus leading to public resistance (Pousada, 1996) to which Pousada (1996) cites Resnick’s (1993) term of motivated failure. For so long the education system in Puerto Rico has been seen and used as a vehicle for Americanization through English teaching, but Puerto Ricans have also

been able to live just fine without English necessary in the domestic domains (Pousada, 1996). In addition, Resnick (1993) adds that Puerto Ricans use Spanish for everyday life and have U.S. citizenship, so there is no motivation to push English, a language that has many perceived threats. These combination of factors leads to a motivated failure (Resnick, 1993), in that there is key motivation to socially reject English so that it cannot displace Spanish and Puerto Rican culture. While Puerto Rico accepts the instrumentality of English, many continue to covertly resist it for the same reasons (Resnick, 1993 and Pousada, 1996).

Even so, the literature supports that English will not displace Spanish in Puerto Rico. For one, Spanish is deeply rooted in the history of Puerto Rico and Puerto Rican culture, a non-negotiable aspect (Pousada, 1996). Again, English is not a necessary part of domestic domains (Pousada, 1996). Puerto Rico has feared language loss due to English displacing Spanish, which Resnick (1993) notes is derived from language shift. But language shift and subsequent loss cannot take place in Puerto Rico because English is not a part of the home domain and each generation has to learn English outside of the home (Resnick, 1993). And in further support, Spanish is a worldwide language, not a minority language that can be dominated (Pousada, 1996 and 2008). Block (2008) adds additional support in noting that worldwide languages, such as Spanish in the U.S. and French in Canada, will continue to prosper despite the heavy influence of English.

Therefore, LPP must be looked at under new light in Puerto Rico. Puerto Rico is not an English as a second language society, as this requires an English speech community outside of the education setting (Pousada, 1996). At the same time, Puerto Rico also cannot be considered an English as a foreign language society, as there is too much influence with the United States for English to be completely foreign (Pousada, 1996). Pousada (1996) proposes an approach of

English as an auxiliary language, where English is the official or co-official language, but not the native language. She goes on to support previously mentioned aspects that are needed in this approach, such as research and policy stages that incorporate teachers, improvement of teacher training in linguistics and LPP, and promoting a student centered focus.

The previous dynamics of language make Puerto Rico a very unique case for LPP. Nonetheless, the literature demonstrates the cause and effect of historical, current, and future suggestions for the LPP processes in Puerto Rico. English has had a volatile history in Puerto Rico with a strong movement against the teaching of English. Policy after policy has failed and many argue that the language policies continue to fail today. Covert resistance to English also retains many influences in the current situation. Yet Spanish thrives and will continue to thrive; thus, the focus becomes on how to move LPP forward in Puerto Rico. An approach which decreases government authoritarian control, steers away from U.S. mindsets, and promotes teacher insight and development are paramount concerns. Puerto Rico can thrive in its dynamic culture, a culture which values both Spanish and English.

### **English Language Remediation in Higher Education**

The precarious balance of English in higher education is a forefront issue around the world. From the maintenance of multilingualism in countries in Scandinavia and post-colonial countries in Africa to the influence of Western culture in Asia, the use of English in higher education is ultimately a power struggle that is confronted in every culture and every mix of economic and political factors. The power of English cannot be ignored. Yet equally as important, English is neither a panacea nor pandemic (Phillipson, 2009). The allure of economic success, for both university and country, draws politicians and administrations to initiate language policies that favor the panacea of English. At the same time, English causes turmoil as

it can be perceived as a threat to other languages, it is the global standard for scholarly and professional publications, and many more factors that lead to a pandemic. Phillipson (2009) concludes that English is not a panacea or a pandemic as, “[t]he current clout of English has nothing to do with any intrinsic properties, and everything to do with the power of its users, and the uses to which the language has been put” (p. 235).

English is a globalizing language with a myriad of effects. Due to its global power, English is recognized as the standard in education (Phillipson, 2009) and higher education acknowledges the imperative need to study it (Shohamy, 2013) by evidence that English has become the main language of instruction at the university level (Doiz, Lasagabaster, and Sierra, 2013).

Crystal, quoted in Phillipson (2009), states that:

English has become the normal medium of instruction in higher education for many countries – including several where the language has no official status. Advanced courses in the Netherlands, for example, are widely taught in English. No African country uses its indigenous language in higher education, English being used in the majority of cases. (p. 207)

Even in contexts where English is not the dominant language, it is recognized as the language of education, particularly in higher education. Shohamy (2013) outlines one such context, a post-colonial context, where the native language is taught in the early grades, with a switch or heavy emphasis on a more prestigious language, like English, in higher grades and especially in higher education. Puerto Rico is situated directly in such a context and has seen over one hundred years of political, economic, and educational battle with English.

In Puerto Rico, English is not the dominant language and has been dictated by economics and politics in higher education. Phillipson (2009) notes this is prevalent around the world, while Shohamy (2013) adds that English in higher education is particularly keen on the power of prestige in the establishment and implementation of English in both contexts, where English is or is not the dominant language. With the fervent need to learn English around the world, higher education institutions have often sought the implementation of English courses and instruction for such economic and political benefits. Recent literature has called for a more balanced and ethical approach which supports the use of L1 and L2 languages in the acquisition of content in higher education, rather than obligating education in one language or the other.

However, a balanced approach to English in higher education is not without its ethical dilemmas. How are less proficient L2 learners supposed to share in the balanced approach and yield as much benefit as proficient L2 learners? Historically this has called for the implementation of remedial English language courses.

Remediation in higher education is designed to improve the education and skills of students who are “ill-prepared” or not at a level necessary for college courses (Bettinger and Long, 2008). Remediation is meant to re-teach or add talents that an institution deems the students should have before undertaking college courses (Breneman and Haarlow, 1998). An admission examination or pre-college test score is most often the standard in assessing students for placement in remedial or regular courses (Bettinger and Long, 2008). Some critics argue that remediation lowers the standards for admission and “waters down” the courses so that academically weaker students can complete college. Others argue that remediation in fact hurts already disadvantaged students and leads to a higher probability of drop outs and unsuccessful

degree completion. Although the concept and offering of remediation are not new, the critical study of the costs, effects, and associative factors is very much a field of study in its infancy.

The vast majority of the research on remedial courses in higher education is based in the United States. Often the studies combine multiple remediation areas into one study, such as mathematics, reading, and writing. One must tread carefully with studies that contain English remediation, as these are often remedial courses for native speakers of English. There is a clear lack of studies and data for English as a second or foreign language. Furthermore, many studies incorporate or solely focus on two-year community colleges, a context of higher education that is rare if not non-existent outside of the United States. Such factors are vitally important to consider when dealing with remediation in Puerto Rico, and specifically the University of Puerto Rico – Mayagüez. Here, the university is based on the higher education system of the United States, but in a Latin American context. English in Puerto Rico, as Pousada (1996) notes, is somewhere in between an ESL and EFL approach. It cannot be exclusively ESL, as the general speech community does not use English; nor can it be EFL, as there is frequent contact with English due to the relationship between Puerto Rico and the United States (Pousada, 1996). Thus, remediation in Puerto Rico needs to be studied and analyzed.

The literature concerning remedial education contains a prevalent cry: the lack of data and yearning for more studies on the costs and effects of remediation (Breneman and Haarlow, 1998; Bettinger and Long, 2006; Martorell and McFarlin, 2007; Bettinger and Long, 2008; Calcagno and Long, 2008). Attewell et al. (2006) add that many institutions have removed or altered remedial courses in recent years. The literature has concrete data on the number of students enrolled in remedial courses, such as the mentioned study of Breneman and Haarlow (1998), but the detailed costs and effects of remediation are still up for debate.

Of the studies that speak to the costs of remediation, Breneman and Haarlow (1998) issue the most renowned study on the monetary cost of remedial education. The researchers looked at state-by-state reported data as well as select site visits and found that remediation accounts for less than one percent of the national budget of public institutions in higher education in the United States of America. This one percent of the budget accounted for one billion dollars for the roughly one-third of incoming freshman who require remediation (Breneman and Haarlow, 1998). Accordingly, they conclude that one percent of the national budget is a small price to pay to improve the students' educational and professional outcomes (Breneman and Haarlow, 1998).

This study is not without many limitations, as to be expected in this emerging field of study. Costrell (1998) argues that if one-third of the students require one percent of the national budget, then it would be appropriate to say that one hundred percent of the students require three percent of the budget. Clearly, this does not stand. The national budget, at least in the case for the United States, contains many non-teaching expenses such as research, public service, university hospitals, etc. (Costrell, 1998). Therefore, he argues, it does little good to look at the cost of remediation in a national scope. Moreover, as the reported state-by-state costs of the study by Breneman and Haarlow (1998) indicate, the costs of remediation vary greatly depending on the students and institution (Costrell, 1998).

More recent studies uphold the statistic that one-third of entering students in the U.S. need remediation (Martorell and McFarlin, 2007; Calcagno and Long, 2008). Martorell and McFarlin (2007) investigate incoming remedial students who scored just above or just below the placement exam in two- and four-year colleges in Texas. The results indicate, as the authors and others have noted, that the effects of remediation “are small in magnitude and statistically insignificant” (Martorell and McFarlin, 2007, p. 3).

Martorell and McFarlin (2007) go on to conclude:

[O]ur findings lend little support to the view that remediation improves student outcomes. In fact, some of our results are consistent with a small negative effect on the number of academic credits attempted and the likelihood of completing at least one year of college. Importantly, we find no effect on the probability of earning a college degree or on labor market earnings for students initially attending a two- or a four-year college, suggesting that remediation does little to improve students' marketable human capital. (p. 25)

A study by Calcagno and Long (2008) at community colleges in Florida supports this notion that remedial education does not help marginalized students make long-term progress in credit completion or progress in obtaining a degree in higher education. The authors note that students on the margin of requiring a remedial math course were slightly more likely to return for a second year of community college versus their non-remedial peers. On a similar vein, a study two years earlier by Sengupta and Jepsen (2006) of community colleges in California found that half the students, remedial or not, did not return after their first year and only ten percent of those who returned went on to earn a degree. Calcagno and Long (2008) go on to cite that students who took a remedial non-ESL English composition course were marginally less likely to pass a subsequent English composition course, while there was no difference for remedial math students. Calcagno and Long (2008) conclude that, "the costs of remediation should be given careful consideration in light of the limited benefits" (p. 32).

Bettinger and Long (2008) found that students in Ohio marginally benefited from remedial education. The study included incoming freshman students based on ACT score and attending a community college (10% of the total sample) or four-year institution within twenty-

six miles of their high school. The researchers found that students who completed remedial courses were twelve percent less likely to drop out and eleven percent more likely to obtain a degree in six years. Like other studies, the positive or negative effects of remedial education appear to be marginal. A study two years earlier by Bettinger and Long (2006) found that sixty-one percent of students at four-year colleges obtained a bachelor's degree within four years, compared to only thirteen percent completion rate for remedial students. As expected, those who took remedial courses completed a greater number of credits, were more likely to drop out, and were less likely to graduate in four years than their non-remedial peers (Bettinger and Long, 2006). Bettinger and Long (2006, 2008) conclude that certain methods of instruction may be more beneficial than others and that further research is needed to better understand the effects of remediation. Bettinger and Long (2006, 2008) also bring up an interesting point that not offering remedial education appears to be expensive in terms of unemployment, government dependency, and imprisonment; an echo of Breneman and Haarlow (1998) who claim that lack of remedial education increases the numbers of such areas. Steinberg (1998) refutes this, citing an absence of empirical data to support such claims.

An interesting affective factor also arises in remediation review concerning the negative or positive effects of peer interaction. Bettinger and Long (2006) hypothesize that lower achieving students (i.e. those in remedial courses) are negatively affected by the involvement with other lower achieving students versus the alternative of performing better when surrounded by higher achieving students. Martorell and McFarlin (2007) find this effect to be negligible in their study and not an important factor in one's success in college.

In light of the literature, remediation is clearly neither a pancea nor pandemic for higher education. Many factors are at play when it comes to understanding remediation, from cost to

effectiveness to socioeconomic implications and much more. Such factors can be further contextualized and understood with more studies and data on remedial education. Puerto Rico in particular has no studies or data published in peer reviewed journals concerning remediation, yet such courses are offered, and at times obligatory, in the state university system. Institutional policies greatly effect remediation from the standards of admission to content of remedial courses and more. Interestingly, as a result of institutional policies, some students who would require remediation at some institutions do not get placed in such courses at other institutions (Attewell et al., 2006). Whether remediation has positive or negative outcomes, most arguments and data show that the arguments are very close on either side of the argument. The data can even be manipulated with control or instrumental variables to change sides of the argument. The study by Attewell et al. (2006) demonstrates how close the arguments can be. Looking at data in one particular manner can lead to one result, such as noting that students at two-year institutions have a significantly lower graduation rates than their non-remedial peers at the same institution. Yet when a control for academic performance in high school is applied, the result is not significant. The study by Bettinger and Long (2006) also illustrates how remediation can lead to a less likely chance of degree completion, but when the same data are controlled for another variable, the results are reversed. In conclusion, the literature displays how remediation in higher education is a growing field of study. As a seemingly endless list of researchers and articles cry out, more needs to be done in this young field of study in order to understand the costs, content of remediation, effects of institutional policies, characteristics of the students, and effects of remedial courses.

## **Theoretical Framework**

Underlying the author's perspective on remediation is sociocultural theory. During and prior to one's language learning in higher education, effects of society and culture influence and determine the foundation, background, and development of language education. With establishment of a theoretical framework the research questions will be better understood, especially for the particularly important issue in remediation of context. A sociocultural theoretical framework will specifically broaden the implications of the first three research questions en route to illuminating the fourth. In subsequent chapters, an investigation of ESLAT and IGS pre-admission test scores will look for differences in performance between students who are labeled as non-remedial and remedial. But what factors may affect the development of students in reaching such outcomes of test scores and achievement?

As established in the literature review, language policies "constitute guidelines or rules shaping language structure, language use, and language acquisition" (Tollefson, 2008, p. 3). Resnick (1993) and other scholars have noted a failure of language policies in Puerto Rico; failures which can extend across the board of education, from elementary and secondary to tertiary levels of language education. Learning of English as an instrument is viewed favorably in Puerto Rico (Pousada, 1996 and 2008), which bodes well for education as English is recognized worldwide as imperative for education (Phillipson, 2009) especially in higher education (Shohamy, 2013). Then why have language policies failed in Puerto Rico if English is accepted for its instrumental value? As Pousada (2008) notes, societal bilingualism is not favored because of the well-established and non-negotiable status of Spanish in Puerto Rico (Pousada, 1996).

If English is valued in Puerto Rico for its instrumental value, but there is a long-established movement against learning English (Resnick, 1993; among others), explanations for the variances in student successes and failures in higher education must stem from previous levels of education and associative factors. One highly important factor in acquisition of a second language is the sociocultural context (Bogards 1996). Bogards (1996) elaborates such sociocultural contexts do not only affect the learner, but the teacher and the learning processes and outcomes as well. In Puerto Rico the sociocultural context of Spanish and English will have an impact on the acquisition of English. Vygotsky's Sociocultural Theory (SCT) supports the notion of sociocultural implications and the process and product of such effects.

Vygotsky's SCT is rooted in means of mediation for higher learning. Learning is mediated through higher order processes and one's mental state via symbolic mediation, which is primarily provided through language (Saville-Troike, 2006). Mediation is also witnessed through physical tools (outward interactions such as speech, eye contact, and gestures) and symbolic tools (inward interactions such as personal thought, feelings, goals, and motivations) in the SCT (Lantolf, 1994). Yet mediation does not simply involve only the learner, but rather teachers, institutions, sociocultural practices, attitudes, beliefs, media, etc. These sociocultural implications will affect learners in secondary institutions in Puerto Rico as they prepare for higher education and college entrance examinations.

Vygotsky theorizes sociocultural attributes can facilitate or impede second language acquisition, and are an instrumental force in the outcome of acquisition (Saville-Troike, 2006; Bown and White, 2010). Prior to admission into higher learning, students of this study had completed secondary education. In Puerto Rico, secondary education is offered through two means of education – public and private institutions. A fundamental part of language acquisition

and the SCT is the interaction and learning that one experiences in such institutions. Such insight will further the understanding of remediation and how it affects the socio-culturally situated lives of students. Social and cultural factors in such institutions will affect the learners' processes and outcomes in language acquisition; hence, results of English language acquisition and resulting college entrance scores. For the present study, this theoretical framework provides the foundation for understanding remediation in higher education and facilitates analysis of the research questions.

## Chapter 3: Methodology

### Methodology and Research Questions

The purpose of this study is to understand the characteristics, benefits, and effectiveness of remedial English requirements in higher education for students at UPRM. At said university, INGL 0066 is the remedial course, which is the precursor for basic English, INGL 3101. The following chart depicts the eras and offerings of INGL 0066 remediation at UPRM.

Table 3.1: Offering of remedial INGL 0066

<b>Period</b>	<b>Academic Year</b>	<b>Fall</b>	<b>Summer</b>
Status Quo	2008-09	Regular	Intensive
Status Quo	2009-10	Regular	Intensive
Status Quo – Fall Institute – Summer	2010-11	Regular	Institute
Institute	2011-12	Institute	Institute
Exit Exam	2012-13	Not offered	Not offered
Exit Exam	2013-14	Not offered	Not offered

To this end, the following research questions will be addressed:

1. Does the remedial higher education English course INGL 0066 improve students' performance in INGL3101?
  - a. What is the effect of taking the remedial English course in terms of pass/fail rates in the subsequent course, INGL 3101, for remedial students?
    - i. Of those who fail INGL 3101, what is the proportion of students who would have had to take remedial INGL 0066?
2. Through study of student ESLAT scores, what are the outcomes of student performance between the remediation (Status Quo) and non-remediation (Exit Exam) eras?

- a. Is there a performance difference in INGL 3101 between the remedial ESLAT group and non-remedial group?
3. Are students who are labeled “remedial” in English already disadvantaged in terms of IGS at admission?
  - a. Is there a correlation between IGS and ESLAT that predicts remediation?
4. Are there differences in performance between public and private secondary institutions of the studied population that would indicate the quality of English language education at the secondary level?
  - a. What are the descriptive statistics of public versus private secondary institutions in terms of
    - i. ESLAT scores?
    - ii. Pass and failure rates?
    - iii. IGS scores?

To address these questions, a secondary data analysis approach will be used. First, descriptive statistics will be reported in order to answer research questions one, two, and three. Then, Vygotsky’s Sociocultural Theory will be used as a framework through which to interpret the findings of the first three questions, and thus answer question four.

Per Smith (2012), secondary data analysis is, “where the researcher analyses data which has already been collected [and] [t]he analysis may involve the original, or novel, research questions, statistical approaches and theoretical frameworks” (p. 125). The study will involve a display of the numeric secondary data in connection to the theoretical framework in order to satisfy this approach. Smith (2012) elaborates on the promises of secondary data analysis in that

it “can be analysed from different empirical or theoretical perspectives and in this way provides opportunities for the discovery of relationships” (p. 126).

The foundation of the study uses descriptive numerical data. Descriptive studies derive information through description and presentation of data (Cohen, Manion, and Morrison, 2007). A descriptive presentation “make[s] no inferences or predictions” (Cohen et al., 2007, p. 504). Research questions one, two, and three will be answered descriptively. The descriptive data will be presented and then synthesized in light of the literature concerning remedial education and the use of English in Puerto Rico. Cohen et al. (2007) add that, “...the social world should be studied in its natural state, without the intervention of, or manipulation by, the researcher” (p. 20).

Research question four will analyze the descriptive numerical data in light of Vygotsky’s Sociocultural Theory. While the descriptive analysis does not make inferences or predictions (Cohen et al., 2007), the application of the theoretical framework will allow for insight into further factors of English acquisition in Puerto Rico and remedial English courses at UPRM. Situating the statistical data within this framework will allow for a comprehensive view of the situation. In turn, this permits the study to formulate a professional and apt summary of the study of INGL 0066 and its effects. The fourth research question will also point to gaps in the statistical data, resulting in concrete suggestions for future research.

### **Research Site**

Data will be analyzed from the records of the UPRM Registrar, the university’s course statistics program, and the UPRM English department from the years 2008 through 2013. More specifically, data will be obtained from two undergraduate English courses, INGL 0066 and INGL 3101. The former is a remedial (sometimes referred to as pre-basic by the university)

course and the latter the first course in a sequence of basic English courses at UPRM. Thus, the site was chosen for its context in both remedial courses and English language courses. The UPRM is also of value in the grand picture of higher education. This university is the premier science and engineering university in the whole of Puerto Rico. It is also the only land-grant, sea-grant, and space-grant university of its kind in Puerto Rico. Other factors make UPRM attractive as well, such as an affordable public institution, routinely ranked as having high quality education, availability of scholarships, and Pell grants (often known as Beca Pell, or simply Beca in Puerto Rico) for the vast majority of attending students.

To elaborate on the inclusion of the specific courses in question, the official course descriptions for the two courses are as follows, per the UPRM Undergraduate Catalogue (2013-2014):

INGL 0066: Pre-basic English. Zero credit hours. Three hours of lecture per week. Intensive training in basic language for students requiring remedial work in English.

INGL 3101: Basic course in English. Three credit hours per semester. Three hours of lecture per week, supplemented by work in the language laboratory, each semester. Prerequisite: Placement by examination or INGL 0066. This course is designed to meet the student's immediate needs, and to give him or her a command of the fundamental structure of the English language. The oral approach is used. Skills in reading and writing are developed. Students will be grouped according to their ability to use the language, and arrangements will be made to give additional help to those students who show poor preparation in English.

### **Sampling Strategies and Data Collection Techniques**

The two courses, INGL 0066 and INGL 3101, have been offered at various times; therefore, a collection of quantitative data from 2008 through 2013 will be amassed for

presentation and analysis. The data for said years will concern the fall semesters, when offered, of both courses.

Using the University's course statistics program (Horario B), with the help of the English department chair, the following statistics will be obtained for first and summer semester INGL 0066 and INGL 3101 from 2008-2013

- Sections
- Capacity
- Enrollment
- Failures
- Drops
- Class percentages
- Individual grades

The University's Office of Institutional Research and Planning (OIIIP according to its Spanish translation) will aid in obtaining the following statistics about students enrolled in INGL 0066 and INGL 3101 in the first semester for the academic years 2008 - 2013:

- IGS score at admission
- ESLAT score at admission
- Public or private secondary education
- Enrollment
- Failures
- Drops
- Individual grades

Through the aforementioned secondary data analysis, the data will be presented in simplified displays, such as graphs, with a description. This will attest to the proper presentation of a descriptive study, per Cohen et al. (2007).

### **Data Analysis**

Through secondary data analysis, the study will present meaningful data in a simplified, descriptive manner. This presentation of data will speak to the first, second, and third research questions. Smith (2012) notes that secondary data analysis works especially well for mixed methods research, such as this study presents. The study uses secondary data to draw a sample from a population for more detailed research of aspects including, but not limited to, contextual information, demographic characteristics, and noting trends over time (Smith, 2012).

The descriptive display of data offers concrete, factual statistics that is reported and presented throughout the duration of the INGL 0066 and INGL 3101 during the fall semesters of 2008 through 2013. Such descriptive statistics are presented and described in a number of relevant categories, including enrollment, failures, drops, percentages, individual grades, and admission test scores. The analysis of descriptive data does not make suggestions, but rather presents the data (Cohen et al., 2007).

Secondary data analysis also proposes the application of theory and theoretical approaches to investigate further details of the research (Smith, 2012). Through application of the Vygotsky's theoretical framework, the reported secondary data will give way to further understanding of the characteristics and effects of remedial education. With the framework of Vygotsky's sociocultural perspective, the data analysis will be able to theorize the social and cultural intricacies of the study's population and the factors related to remedial English at UPRM; thus, the theoretical application will address the fourth research question.

Per Cohen et al. (2007), such a process of qualitative analysis allows for sorting, synthesis, and review of the salient features of the subject at hand. The analysis will also include organizing and presenting the data by groups (each course, for example) and by issue (the realm of remedial language courses in higher education as a whole). In accordance with secondary data analysis, the descriptive statistics will be presented and the theory will be applied to the framework in order to investigate relationships and meaningful perspectives (Smith 2012).

### **Reliability and Validity**

As noted above, the secondary data analysis approach employs both descriptive and theoretical frameworks. A descriptive study will present statistical, concrete data without implying or making predictions of said data and thus upholding validity (Cohen et al., 2007). Meanwhile, a theoretical analysis will complement the reliability and validity of the research. The descriptive statistics from the two courses will allow for simple, concrete data while the theoretical analysis will aid in, “representing the complexity of the situations” such as public versus private secondary English education (Cohen et al., 2007).

The study encompasses data from a 6-year period which ensures an appropriate time scale for validity. This will allow for any patterns and anomalies to appear and be treated as such. The replication of the data over the time period and a steady context increases reliability in quantitative studies per Cohen et al. (2007). Furthermore, the data is recorded by official university sanctions, thus upholding descriptive validity in the factual nature of objective data, which subsumes reliability as well (Cohen et al., 2007). On the theoretical side of the study, reliability is maintained by selecting the same two courses for study in a context where the social factors are stable over the course of the study (Cohen et al., 2007). With the same research site, collection of data, and analysis of data, Cohen et al. (2007) note that reliability is supported.

## Data Cleaning

Data from OIIP are organized in two Microsoft Excel spreadsheets. One Excel spreadsheet contains data for INGL 0066, and the other INGL 3101. Both spreadsheets were reviewed for continuity and accuracy of data.

The INGL 3101 spreadsheet contains 4,097 original entries and was cleaned in the following manner:

- One (1) entry removed for ESLAT score of zero
- Eleven (11) entries flagged for IGS score of zero

One entry with an ESLAT score of zero was removed as it affected the underlying test score vital to the statistics of this study. The eleven entries that were flagged for an IGS score of zero remained intact during the study of ESLAT scores and associative statistics (such as pass/fail), as this did not affect the vitality of the descriptive statistics, but were removed during investigations involving IGS scores and correlations.

The INGL 0066 spreadsheet contains 1,087 original entries and was cleaned in the following manner:

- Seventeen (17) entries removed for ESLAT score of greater than 469, or for score of zero
- Eighty-four (84) entries removed for enrollment in second or summer semesters
- Five (5) entries flagged for IGS score of zero

Entries with an ESLAT score of zero were removed for noted reasons. Further entries, those with ESLAT scores of 470 or greater, were also removed due to their effect on the data set. Such scores were not classified as remedial and were thus removed. As previously noted, the study concerns data for fall semesters only, hence removal of spring and summer semesters. Once again, any entries with an IGS of zero were included in investigations that did not concern IGS.

## **Conclusion**

This study will use secondary data analysis to obtain an understanding of remedial (pre-basic) English language courses at the University of Puerto Rico Mayagüez. The descriptive data will be presented, followed by theorizing the results in light of the literature and UPRM context. The literature and theoretical framework will shed further light on the descriptive data, allowing objective, statistical secondary analysis of the awareness of remedial courses in higher education.

A collection of quantitative data from academic years 2008-09 through 2013-14 will be amassed from the fall and summer semesters of the aforementioned years for two courses, INGL 0066 (pre-basic/remedial) and INGL 3101(basic). The sample offers six years of data, which allows for any patterns or anomalies to appear and be treated as such. Data will show characteristics for each of the two courses including number of students enrolled, number of failures, and number of drops, and percentages. More data will provide a comparison of performance between the courses and between ESLAT test scores, as well as a comparison to the pass/fail rates of other English courses through the duration of the time period. Yet more data will display IGS admission test scores and secondary education institution.

With the quantitative data at hand, the objectivist nature of the research will complement the gap in the literature, specifically concerning remedial language courses in higher education in Puerto Rico. Students and curriculum change over time, but the objective state of the statistics does not. Either the student passed or failed. Either the remedial students did better or worse in the subsequent course. In direct relation to the research questions, the first three questions will be addressed by the descriptive data and the last question will be highlighted by application of the theoretical framework, all complying with the methods for secondary data analysis. This secondary data analysis study will assess the characteristics and effects of remedial language

courses in higher education and apply Vygotsky's Sociocultural Theory to the context. Such display, application, and synthesis will be presented in the next chapter.

## **Chapter 4: Results**

The results section will present the collected data. As noted in the methodology, a secondary data analysis is used for the present study. As such, the data will be presented here before being discussed and analyzed in the following sections. As Cohen et al. (2007) stipulate, a descriptive presentation “make[s] no inferences or predictions” (p. 504); thus, the data will be displayed, then analyzed in Chapter Five.

### **INGL 3101**

To begin, a primary concern of the study involved a comparison of the data between the Status Quo period and Exit Exam period. Statistics on enrollment, pass, and fail, divided into ESLAT groups, for the periods in reverse chronological order will be presented first.

Furthermore, this data will correlate to the statistics for INGL 3101.

Of particular note for the present study is the division of ESLAT groups. Those who scored 469 or lower on the ESLAT would have had to take the remedial course INGL 0066 during the Status Quo Period. These data will, in part, help to answer the first and second research questions. Notably:

- Is there a performance difference in INGL 3101 between the remedial ESLAT group and non-remedial group?

The data for the Exit Exam Period are as follows. The first semester of the academic year 2013-14 witnessed a total enrollment of 480 students. Of this quantity, 448 went on to pass, 16 failed, and 16 withdrew. In order to facilitate the first and second research questions, the data have been divided into respective ESLAT groups. The following table illustrates the overall enrollment per ESLAT group.

Table 4.1: Enrollment per ESLAT group during 1<sup>st</sup> semester of 2013-14

ESLAT 469 and below	ESLAT 470 – 569	Total
120	360	480
25%	75%	100%

The subsequent tables are also divided per ESLAT group for the aforementioned semester and present the pass/fail outcomes as a percentage of the total enrollment per respective ESLAT group.

Table 4.2: ESLAT 469 and below performance in INGL 3101 during 1<sup>st</sup> semester of 2013-14

Pass	Fail
105	10
87.5%	8.3%

Table 4.3: ESLAT 470 – 569 performance in INGL 3101 during 1<sup>st</sup> semester of 2013-14

Pass	Fail
343	6
95.2%	1.7%

Total enrollment in the academic year 2012-13 was 564 students. Of this number, 522 students went on to pass INGL 3101, 25 students failed, and 17 withdrew. The table below illustrates the breakdown per ESLAT group for the first semester of the academic year 2012-13.

Table 4.4: Enrollment per ESLAT group during 1<sup>st</sup> semester of 2012-13

ESLAT 469 and lower	ESLAT 470 - 569	Total
236	328	564
41.8%	58.2%	100%

The results for this semester are as follows. A total of 522 students passed the course and 25 students failed the course. The subsequent tables depict this per ESLAT group.

Table 4.5: ESLAT 469 and below performance in INGL 3101 during 1<sup>st</sup> semester of 2012-13

Pass	Fail
209	19
88.6%	8.1%

Table 4.6: ESLAT 470 – 569 performance in INGL 3101 during 1<sup>st</sup> semester or 2012-13

Pass	Fail
313	6
95.4%	1.8%

During the Institute Period, INGL 3101 in the first semester of 2011-12 was comprised of an enrollment of 476 students. A total of 442 went on to pass, 17 failed, and 17 withdrew. The overall statistics, divided into respective ESLAT groups, are provided in the following tables.

Table 4.7: Enrollment per ESLAT group during 1<sup>st</sup> semester of 2011-12

ESLAT 479 and lower	ESLAT 470 - 569	Total
146	330	476
30.7%	69.3%	100%

The pass/fail for this semester is further broken down into the following tables.

Table 4.8: ESLAT 469 and below performance in INGL 3101 during 1<sup>st</sup> semester of 2011-12

Pass	Fail
128	11
87.7%	7.5%

Table 4.9: ESLAT 470 – 569 performance in INGL 3101 during 1<sup>st</sup> semester of 2011-12

Pass	Fail
314	6
95.2%	1.8%

The enrollment and pass/fail data, divided by ESLAT groups, for INGL 3101 will continue with presentation of the Status Quo Period. The first semester of 2010-11 witnessed an

enrollment total of 560 students. Of this number, 517 students successfully passed, 22 failed, and 21 withdrew. An overview is presented below.

Table 4.10: Enrollment per ESLAT group during 1<sup>st</sup> semester of 2010-11

ESLAT 469 and below	ESLAT 470 - 569	Total
112	448	560
25%	75%	100%

The data is further elaborated in the following tables.

Table 4.11: ESLAT 469 and below performance in INGL 3101 during 1<sup>st</sup> semester of 2010-11

Pass	Fail
92	8
82.1%	7.1%

Table 4.12: ESLAT 470 – 569 performance in INGL 3101 during 1<sup>st</sup> semester of 2010-11

Pass	Fail
425	14
94.9%	3.1%

Continuing the order, the first semester of 2009-10 for INGL 3101 enrolled a total of 694 students. A group of 616 passed the course, 42 failed, and 36 withdrew. The subsequent tables show this information as divided per ESLAT group.

Table 4.13: Enrollment per ESLAT group during 1<sup>st</sup> semester of 2009-10

ESLAT 469 and below	ESLAT 470 - 569	Total
154	540	694
22.2%	77.8%	100%

Table 4.14: ESLAT 469 and below performance INGL 3101 during 1<sup>st</sup> semester of 2009-10

Pass	Fail
125	12
81.2%	7.8%

Table 4.15: ESLAT 470 – 569 performance in INGL 3101 during 1<sup>st</sup> semester of 2009-10

Pass	Fail
491	30
90.9%	5.5%

Thus concludes the appropriate data for INGL 3101. Note that data for INGL 3101 for the academic year 2008-09 is not necessary, as any effects of remediation during said year would have been due to remediation during a period not analyzed by this study.

### **INGL 0066**

The presentation of data shall continue with INGL 0066 in the same pattern as seen above. Remedial English, INGL 0066, was only offered as a regular course during the period given the title Status Quo. This period occurred during academic years 2008-09, 2009-10, and the first semester of 2010-11. Note that all students in INGL 0066 would have scored 469 or lower on the ESLAT, thus delineations such as the previous tables are not necessary. These data will assist in answering the second research question.

- Through study of student ESLAT scores, what are the outcomes of student performance between the remediation (Status Quo) and non-remediation (Exit Exam) eras?

In the first semester of 2010-11, a total of 283 students enrolled in INGL 0066. The following table illustrates the outcome.

Table 4.16: INGL 0066 during 1<sup>st</sup> semester of 2010-11

Fail	Pass	Withdraw	Total
19	259	5	283
6.7%	91.5%	1.8%	100%

Academic year 2009-10 witnessed 327 students enroll in the first semester of INGL 0066.

The table which follows depicts the results.

Table 4.17: INGL 0066 during 1<sup>st</sup> semester of 2009-10

Fail	Pass	Withdraw	Total
44	274	9	327
13.5%	83.8%	2.8%	100%

The final year of this study is the academic year 2008-09, which in INGL 0066, saw an enrollment of 368 students. The following table rounds out the data.

Table 4.18: INGL 0066 during 1<sup>st</sup> semester of 2008-09

Fail	Pass	Withdraw	Total
33	321	14	368
9%	87.2%	3.8%	100%

### **Failure Rate INGL 0066 versus INGL 3101**

The overall failure percentages are visualized in the following tables. Note the data for INGL 3101 is the overall failure percentage (i.e. data include both ESLAT groups – those scoring 469 and lower, as well as those scoring 470 – 569). This will cultivate the answer to the first research question and build a foundation of knowledge of INGL 0066 in order to understand its effects on INGL 3101

Table 4.19: INGL 0066 failure statistics

Academic Year	Number of Failures	Total Enrollment	Failure Percentage
2008-09	33	368	9.0%
2009-10	44	327	13.5%
2010-11	19	283	6.7%

Table 4.20: INGL 3101 failure statistics

Academic Year	Number of Failures	Total Enrollment	Failure Percentage
2009-10	42	694	6.1%
2010-11	22	560	3.9%
2011-12	17	476	3.6%
2012-13	25	564	4.4%
2013-14	16	480	3.3%

To view INGL 3101 through the lens of INGL 0066, the following table shows the failure percentages of the Institute and Exit Exam periods for those students who would have had to take INGL 0066 if it had been offered. In other words, the following table shows the failure rate in INGL 3101 for those students who scored 469 or lower on the ESLAT during the Institute and Exit Exam periods when INGL 0066 was not offered. This specifically address research question number one:

- Of those who fail INGL 3101, what is the proportion of students who would have had to take remedial INGL 0066?

The first table offers statistics for the failures in INGL 3101 of the ESLAT group who scored 469 or below (i.e. students who would have had to take remedial INGL 0066)

Table 4.21: INGL 3101 lower ESLAT group

Academic Year	Number of Failures	Total Enrollment (ESLAT 469 and below)	Failure Percentage
2012-13	19	236	8.1%
2013-14	10	120	8.3%

The second table offers data for the failures in INGL 3101 of the non-remedial students who scored 470 - 569 on the ESLAT exam.

Table 4.22: INGL 3101 upper ESLAT group

Academic Year	Number of Failures	Total Enrollment (ELSAT 470 and above)	Failure Percentage
2012-13	6	328	1.8%
2013-14	6	360	1.7%

**Transition from INGL 0066 to INGL 3101**

The following data address the first research question:

- What is the effect of taking the remedial English course in terms of pass/fail rates in the subsequent course, INGL 3101, for remedial students?

In the academic year 2009-10, a total of 154 students had taken INGL 0066. In 2010-11 that number was 112. The following table illustrates those students in the subsequent course, INGL 3101. That is to say, the table illustrates the success of students in basic English 3101 after having taken remedial English 0066.

Table 4.23: Effect of INGL 0066 in subsequent INGL 3101

Academic Year	Pass	% Pass	Fail	% Fail
2009-10	125	81.2%	12	7.8%
2010-11	92	82.1%	8	7.1%

**Admission Factor – IGS**

The following data will offer insight into the third research question:

- Are students who are labeled “remedial” in English already disadvantaged in terms of IGS at admission?

For remedial-labeled students (i.e. those who took INGL 0066 during the Status Quo period or marked a score of 469 or lower on the ESLAT during the Institute and Exit Exam periods), the range of IGS scores are provided below.

Table 4.24: IGS range for remedial-labeled students

Academic Year	IGS Range	Number of Students in Range
2008-09	239 – 370	363
2009-10	230 – 370	327
2010-11	230 – 370	283
2011-12	245 – 356	146
2012-13	245 – 358	236
2013-14	238 – 345	120

To verify if students who are labeled as remedial are already disadvantaged based on IGS, a comparison with non-remedial students would be necessary. The table below provides the IGS range of non-remedial students (i.e. those who scored 470 – 569 on the ESLAT).

Table 4.25: IGS range for non-remedial-labeled students

Academic Year	IGS Range	Number of Students in Range
2008-09	245 – 382	550
2009-10	237 – 368	540
2010-11	245 – 369	448
2011-12	225 – 364	330
2012-13	249 – 376	328
2013-14	249 – 372	360

The second part of the third research question will be examined through use of the following table for students in INGL 0066 and students scoring 469 or lower on the ESLAT:

- Is there a correlation between IGS and ESLAT that predicts remediation?

In order to understand the values of the correlations, the subsequent table offers information on reading the correlation numbers.

Table 4.26: Pearson's *r* correlation

Value of Pearson's <i>r</i> Correlation	Indication
.70 or higher	Very strong relationship
.40 to .69	Strong relationship
.30 to .39	Moderate relationship
.20 to .29	Weak relationship
.01 to .19	No or negligible relationship

The next table offers the correlations for the remedial group in terms of ESLAT and IGS scores.

Table 4.27: Correlation between ESLAT and IGS for remedial-labeled group

Academic Year	Correlation	Strength of Correlation
2008-09	0.30	Weak moderate
2009-10	0.27	Weak
2010-11	0.21	Weak
2011-12	0.26	Weak
2012-13	0.31	Weak moderate
2013-14	0.30	Weak moderate

In order to see if there is an indicator for remediation, a comparison of non-remedial students will help to complete the answer. The following table fulfills this need.

Table 4.28: Correlation between ESLAT and IGS for non-remedial group

Academic Year	Correlation	Strength of Correlation
2008-09	0.09	None or negligible
2009-10	0.02	None or negligible
2010-11	0.12	None or negligible
2011-12	-0.05	None or negligible
2012-13	0.08	None or negligible
2013-14	0.02	None or negligible

### **Public versus Private**

To finish the chapter of data results, this section will offer descriptive data concerning students' outcomes per their secondary education background. Specifically, data were obtained for whether each student attended a public, private, or other secondary institution. Data here will allow theoretical application to address the fourth research question:

- Are there differences in performance between public and private secondary institutions of the studied population that would indicate the quality of English language education at the secondary level?

The first data to be provided will display ESLAT scores per institution from INGL 3101 data throughout the six year period of study. These data will satisfy the first part of the sub-question:

- What are the descriptive statistics of public and private secondary institutions in terms of ESLAT scores?

Table 4.29: Public versus private ESLAT division in 2008-09

Private		
ESLAT 469 and below	ESLAT 470 - 569	Total
32	169	201
15.9%	84.1%	100%
Public		
ESLAT 469 and below	ESLAT 470 - 569	Total
124	378	502
24.7%	75.3%	100%

Table 4.30: Public versus private ESLAT division in 2009-10

Private		
ESLAT 469 and below	ESLAT 470 - 569	Total
21	151	172
12.2%	87.8%	100%
Public		
ESLAT 469 and below	ESLAT 470 - 569	Total
132	381	513
25.7%	74.3%	100%

Table 4.31: Public versus private ESLAT division in 2010-11

Private		
ESLAT 469 and below	ESLAT 470 - 569	Total
18	158	176
10.2%	89.8%	100%
Public		
ESLAT 469 and below	ESLAT 470 - 569	Total
93	285	378
24.6%	75.4%	100%

Table 4.32: Public versus private ESLAT division in 2011-12

Private		
ESLAT 469 and below	ESLAT 470 - 569	Total
21	106	127
16.5%	83.5%	100%
Public		
ESLAT 469 and below	ESLAT 470 - 569	Total
119	219	338
35.2%	64.8%	100%

Table 4.33: Public versus private ESLAT division in 2012-13

Private		
ESLAT 469 and below	ESLAT 470 - 569	Total
41	107	148
27.7%	72.3%	100%
Public		
ESLAT 469 and below	ESLAT 470 - 569	Total
192	213	405
47.4%	52.6%	100%

Table 4.34: Public versus private ESLAT division in 2013-14

Private		
ESLAT 469 and below	ESLAT 470 - 569	Total
18	97	115
15.7%	84.3%	100%
Public		
ESLAT 469 and below	ESLAT 470 - 569	Total
100	256	356
28.1%	71.9%	100%

The following data will present pass and failure rates for each institution type. Data for INGL 0066 is provided first, followed by INGL 3101 to illuminate any possible findings. This is in conjunction with the sub-question:

- What are the descriptive statistics of public and private secondary institutions in terms of pass and failure rates?

Table 4.35: INGL 0066 pass/fail per institution in 2008-09

Private			
Pass	Fail	Withdraw	Total
48	6	0	54
88.9%	11.1%	0%	100%
Public			
Pass	Fail	Withdraw	Total
272	27	14	313
86.9%	8.6%	4.5%	100%

Table 4.36: INGL 0066 pass/fail per institution in 2009-10

Private			
Pass	Fail	Withdraw	Total
35	1	2	38
92.1%	2.6%	5.3%	100%
Public			
Pass	Fail	Withdraw	Total
238	42	7	287
82.9%	14.6%	2.4%	100%

Table 4.37: INGL 0066 pass/fail per institution in 2010-11

Private			
Pass	Fail	Withdraw	Total
51	7	1	59
86.4%	11.9%	1.7%	100%
Public			
Pass	Fail	Withdraw	Total
202	12	4	218
92.7%	5.5%	1.8%	100%

Data will now be provided for INGL 3101 during the non-remediation years.

Table 4.38: INGL 3101 pass/fail per institution in 2012-13

Private			
Pass	Fail	Withdraw	Total
136	7	5	148
91.9%	4.7%	3.4%	100%
Public			

Pass	Fail	Withdraw	Total
377	16	12	405
93.1%	4.0%	3.0%	100%

Table 4.39: INGL 3101 pass/fail per institution in 2013-14

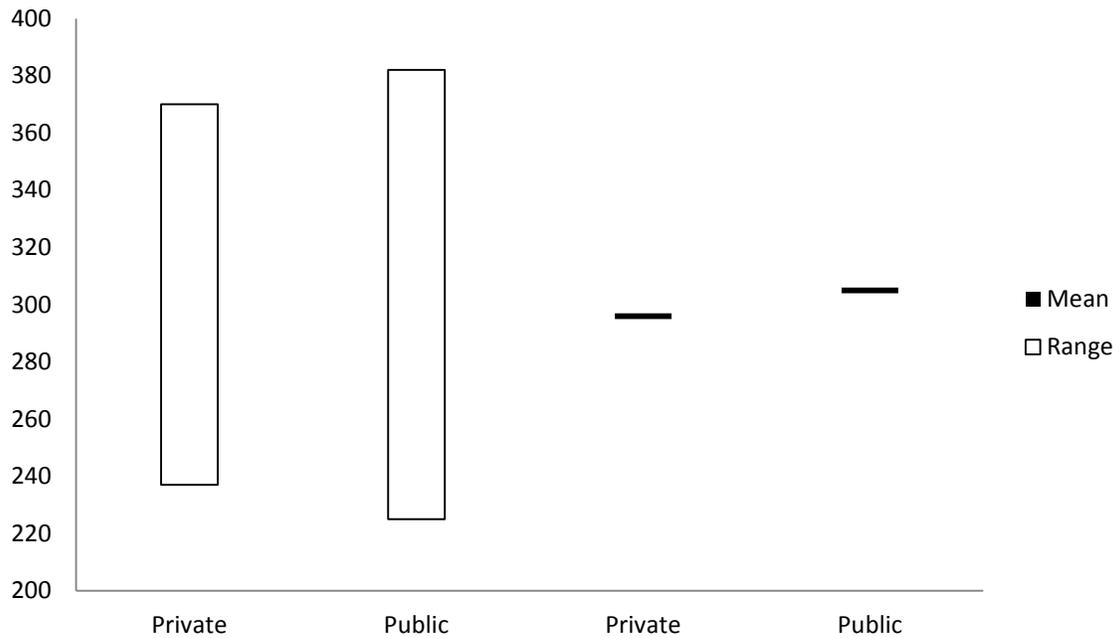
Private			
Pass	Fail	Withdraw	Total
107	4	4	115
93.0%	3.5%	3.5%	100%
Public			
Pass	Fail	Withdraw	Total
333	11	12	356
93.5%	3.1%	3.4%	100%

The final data for the fourth research question concerns correlations between institutions and IGS scores. The data will help identify:

- What are the descriptive statistics of public and private secondary institutions in terms of IGS scores?

Using data from INGL 3101 for the duration of the six year study period, 1033 students attended private secondary institutions and 2993 students attended public secondary institutions. The descriptive data follows.

Figure 4.1: Public versus private statistical IGS score range with median



Furthermore, the standard deviation of the IGS scores for public and private institutions are as follows:

Private Institutions:

- Standard deviation: 28.6

Public Institutions:

- Standard deviation 28.9

The data displayed in this chapter address the research questions. As this study uses a secondary data analysis method, the results are presented in a descriptive presentation with no inferences or interferences by the author. The next chapter will delve into the analysis of these descriptive data and allow for discussion and interpretation of results.

## Chapter 5: Discussion and Analysis

The previous chapter displayed the descriptive data of the present study. This chapter shall offer a display of data along with discussion and analysis. In the field of secondary data research, Smith (2012) highlights such data “can be analysed from different empirical or theoretical perspectives and in this way provides opportunities for the discovery of relationships” (p. 126). This chapter will provide different perspectives on the data to discuss and analyze the research questions, context at UPRM, and lead into discussion of future implications.

### Research Question #1

The first research question asks if the remedial English course INGL 0066 improves students’ performance in the subsequent basic English course, INGL 3101. The first part of the sub question posits:

- What is the effect of taking the remedial English course in terms of pass/fail rates in the subsequent course, INGL 3101, for remedial students?

The table provided in the previous chapter allows a preliminary look at the answer. In the academic year 2009-10, a total of 154 students (including 17 withdraws) took INGL 0066. In 2010-11 that number was 112 (including 12 withdraws).

Table 5.1: Effect of INGL 0066 in subsequent INGL 3101

Academic Year	Pass	% Pass	Fail	% Fail
2009-10	125	81.2%	12	7.8%
2010-11	92	82.1%	8	7.1%

Over 80% of the remedial students go on to pass the subsequent course, with a fail rate under 8%. This appears to be an overall positive effect in students’ progression of English language courses. In order to discover new relationships and put these data in the larger picture, a comparison of data are needed. The following table illustrates the success of students in INGL

3101 who would have had to take the remedial course, INGL 0066, had previous regulations been in place. That is, the following are data from the Exit Exam period when INGL 0066 was not offered; thus, students who scored 469 or lower on the ESLAT went straight into INGL 3101 without remediation.

Table 5.2: Remedial-labeled students directly into INGL 3101

Academic Year	Pass	% Pass	Fail	% Fail
2012-13	209	88.6%	19	8.1%
2013-14	105	87.5%	10	8.3%

A total of 236 students (including 8 withdraws) marked 469 or lower in the ESLAT exam for the first semester of 2012-13, followed by 120 total students (including 5 withdraws) in the first semester of 2013-14.

In comparison, failure rates were 0.3 – 1.2% higher and passing rates were 5.4 – 7.4% higher in the Exit Exam period versus mandatory remediation during the Status Quo period. The effect of taking the remedial English course is a marginally lower chance of failure, and a few percentage points lower chance of passing as well. Upon first analysis, it does not appear that INGL 0066 added significant improvement to students’ success.

The next part of the first research question asks:

- Of those who fail INGL 3101, what is the proportion of students who would have had to take remedial INGL 0066?

Two tables were provided in chapter four, which are reprinted here for discussion purposes. The first table offers statistics for the failures in INGL 3101 of the ESLAT group who scored 469 or below (i.e. students who would have had to take remedial INGL 0066), similar to the table above.

Table 5.3: INGL 3101 students previously requiring remediation

Academic Year	Number of Failures	Total Enrollment (ESLAT 469 and below)	Failure Percentage
2012-13	19	236	8.1%
2013-14	10	120	8.3%

The second table offers data for the failures in INGL 3101 of the non-remedial students who scored 470 - 569 on the ESLAT exam.

Table 5.4: INGL 3101 upper ESLAT group

Academic Year	Number of Failures	Total Enrollment (ELSAT 470 - 569)	Failure Percentage
2011-12	6	330	1.8%
2012-13	6	328	1.8%
2013-14	6	360	1.7%

In the first table we see that ten and nineteen students in respective years who failed INGL 3101 would have had to take remediation under previous requirements. In comparison with non-remedial students in INGL 3101, the Institute and Exit Exam periods witnessed only six students fail each semester. Slightly fewer non-remedial students failed INGL 3101 than remedial students, which is to be expected. So the question becomes, would these ten to nineteen students have benefited from INGL 0066? To discover a relationship, a comparison of this table could be made with the table depicting the failures in INGL 3101 after taking remediation. The students in this table under the academic years 2009-10 and 2010-11 would have previously taken INGL 0066. Students in the following years would not have taken the remedial course, but rather gone right into INGL 3101.

Table 5.5: Failures in INGL 3101 for remedial-labeled students

Academic Year	Failure Total	Total number of students scoring 469 and below on ESLAT	Failure Percentage
2009-10	12	154	7.8%
2010-11	8	112	7.1%
2011-12	11	146	7.5%
2012-13	19	236	8.1%
2013-14	10	120	8.3%

Twelve and eight students failed INGL 3101 in 2009-10 and 2010-11, respectively, after taking INGL 0066. Thus, there is not much difference between the total number or percentages of students who failed INGL 3101, whether they took INLG 0066 or went straight into INGL 3101.

Many previous studies, such as Martorell and McFarlin (2007), have noted that the effects of remediation “are small in magnitude and statistically insignificant” (p. 3). The data within remediation at UPRM align with such findings in the literature. Take, for example, the pass and failure rates in INGL 3101 for students who were or otherwise would have been labeled remedial due to an ESLAT score of 469 or below. Failure rates were 0.3 – 1.2% higher and passing rates were 5.4 – 7.4% higher in the Exit Exam period versus mandatory remediation during the Status Quo period. That is to say, when students who would have been remediated were “thrown right into the fire” of basic English course INGL 3101, only 0.3% to 1.2% more of them failed (this amounts to 2 – 11 number of students) than those who took remediation first.

Particularly this failure rate is insignificant, thus the effects should be framed within the larger picture. Is it worth the students’ and university’s time, resources, and money to make INGL 0066 remediation mandatory? With only that small of a percentage failing INGL 3101 as opposed to taking a semester of remediation first, perhaps not. Additionally, students who took INGL 0066 often had to wait until the subsequent fall semester for INGL 3101; thus, they missed

a valuable semester for continuing their English education. Perhaps, even, this could further impede their degree progress in terms of necessary English prerequisites and overall time to degree. As Bettinger and Long (2006) discover, students who took remedial courses are more likely to drop out of college and are less likely to graduate in four years as compared to their non-remediated peers. Needless to say, a myriad of factors need to be considered for such contexts where data show marginal hindrance and/or improvement for remedial students; a topic that should be investigated in a future study.

### **Research Question #2**

The second research question probes into ESLAT scores for comparison of remedial versus non-remedial students and resultant pass/fail in INGL 0066 and INGL 3101. The first sub question proposes:

- Is there a performance difference in INGL 3101 between the remedial ESLAT group and non-remedial group?

The following two figures represent the pass/fail statistics per ESLAT in 3101 during the six year period of study. The x-axis corresponds to the academic year and the y-axis corresponds to the percentage (%) pass or fail.

Figure 5.1: Passing rate per ESLAT group in INGL 3101

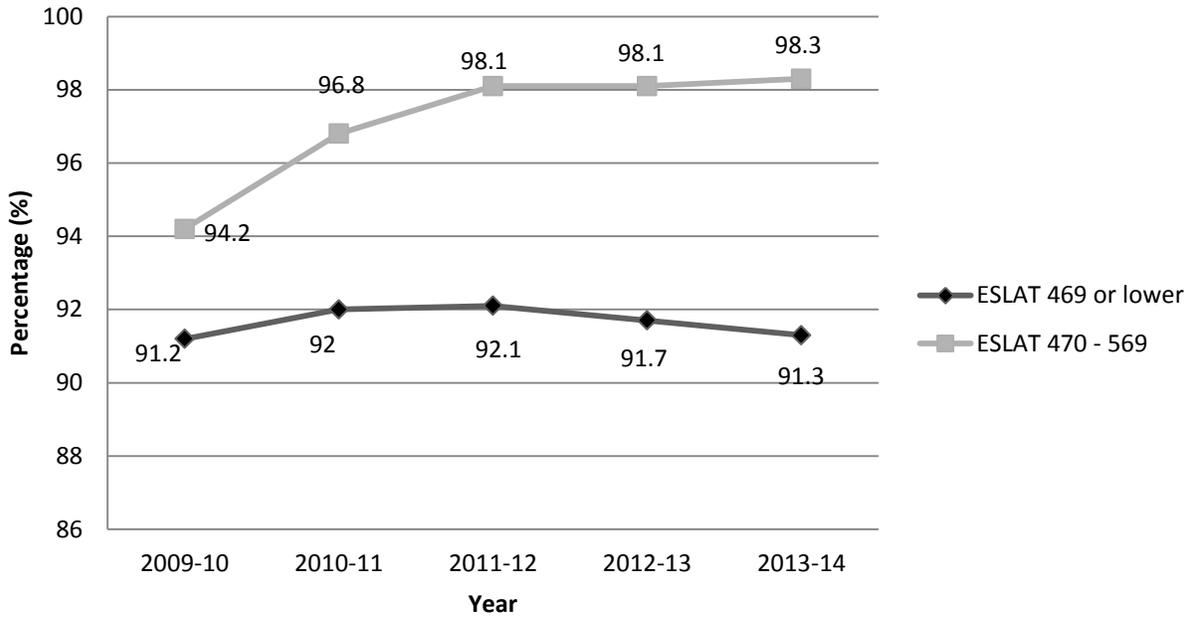
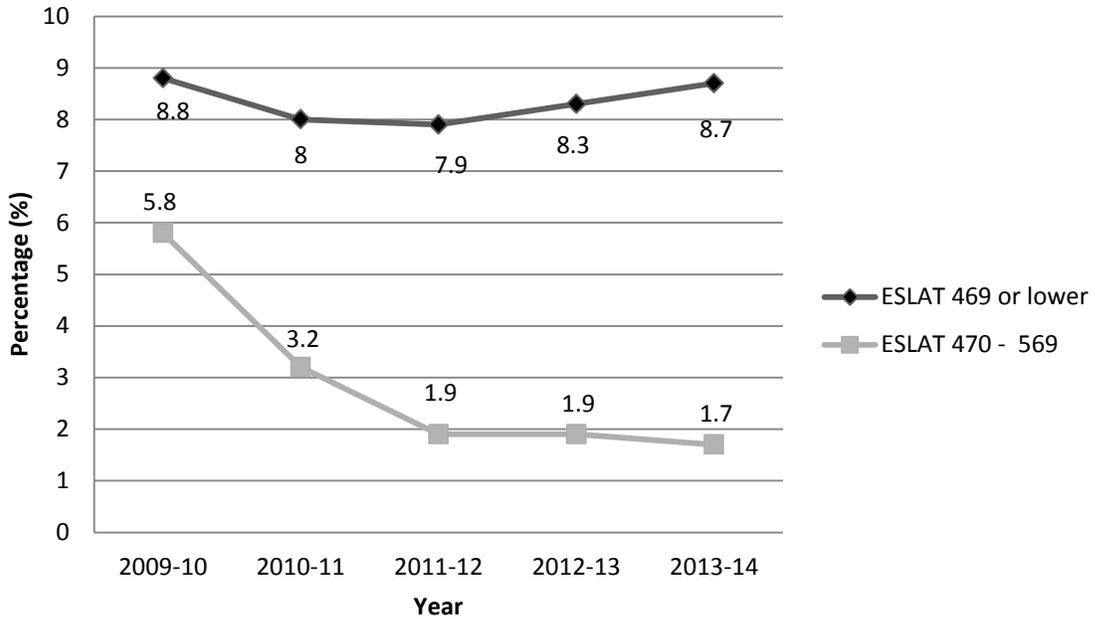


Figure 5.2: Failure rate per ESLAT group in INGL 3101

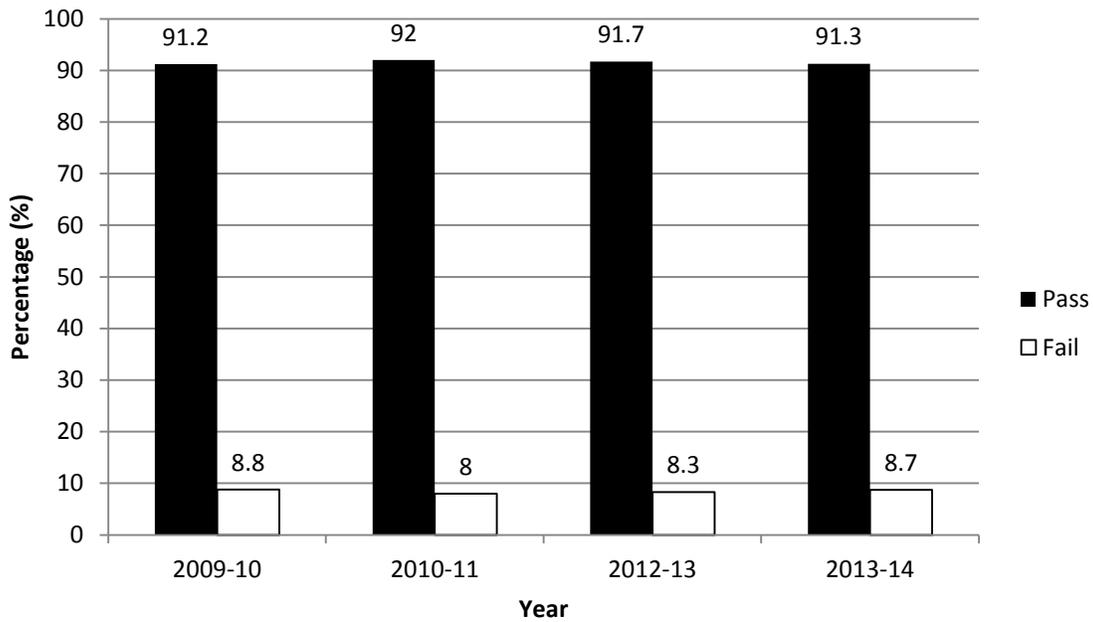


Upon observation, both ESLAT groups witnessed a passing percentage greater than ninety percent. The upper ELSAT group (scoring 470 - 569) slightly outpaced the lower ESLAT group

(scoring 469 or below) in all years. Overall, the upper ESLAT group had an average passing rate of 97.2% and a fail rate of 2.8%, while the lower ESLAT group had an average passing rate of 92.7% and a fail rate of 7.3% for INGL 3101 over the given years. To answer the research question, there is a slight performance difference in INGL 3101 between the ESLAT groups, but not by as much as one may have thought; 91% or more of the lower ESLAT group passed INGL 3101 every semester.

Furthermore, a comparison of the lower ESLAT group reveals interesting data.

Figure 5.3: Lower ESLAT performance in INGL 3101



Those who underwent mandatory remediation during the Status Quo period (2009-10 and 2010-11) had nearly identical statistics to those of the same lower ESLAT group who went straight into INGL 3101 during the Exit Exam period (2012-13 and 2013-14). These data shed further light on the effectiveness of INGL 0066 in that these data are barely distinguishable between positive and negative effects. Overall, those in the lower ESLAT group who went straight into INGL 3101 experienced the same pass and failure percentages as those who had remediation in

INGL 0066. These data are similar to many remedial studies in showing remediation to be of marginal or negligible benefit (see: Martorell and McFarlin, 2007 among others).

At UPRM, this study shows INGL 0066 to have little or no effect on the success of remedial students in the subsequent basic English course, and little or no difference in pass/failures for remedial students who were placed directly into INGL 3101 without remediation. Marginal or negligible benefits of remediation once again beg discussion of costs to students and institutions, among other factors such as time to degree and likelihood of drop out. Since Breneman and Haarlow (1998) initiated debate on remediation, many more studies have noted greatly varying costs of remediation depending on the context of students and institution (Costrell, 1998).

When remedial students who were placed directly into INGL 3101 saw negligible change in pass/fail outcomes compared to those who had remediation first, the effects of peer-to-peer interaction also arise. These remedial students may have been positively influenced by interaction with higher achieving students, such as Bettinger and Long (2006) hypothesize. Many curiosities arise, but the answer to the second research question of remediation at UPRM remains the same; there is little effect, whether positive or negative, in outcome of remedial-labeled students at UPRM in INGL 3101 throughout the studied periods.

### **Research Question #3**

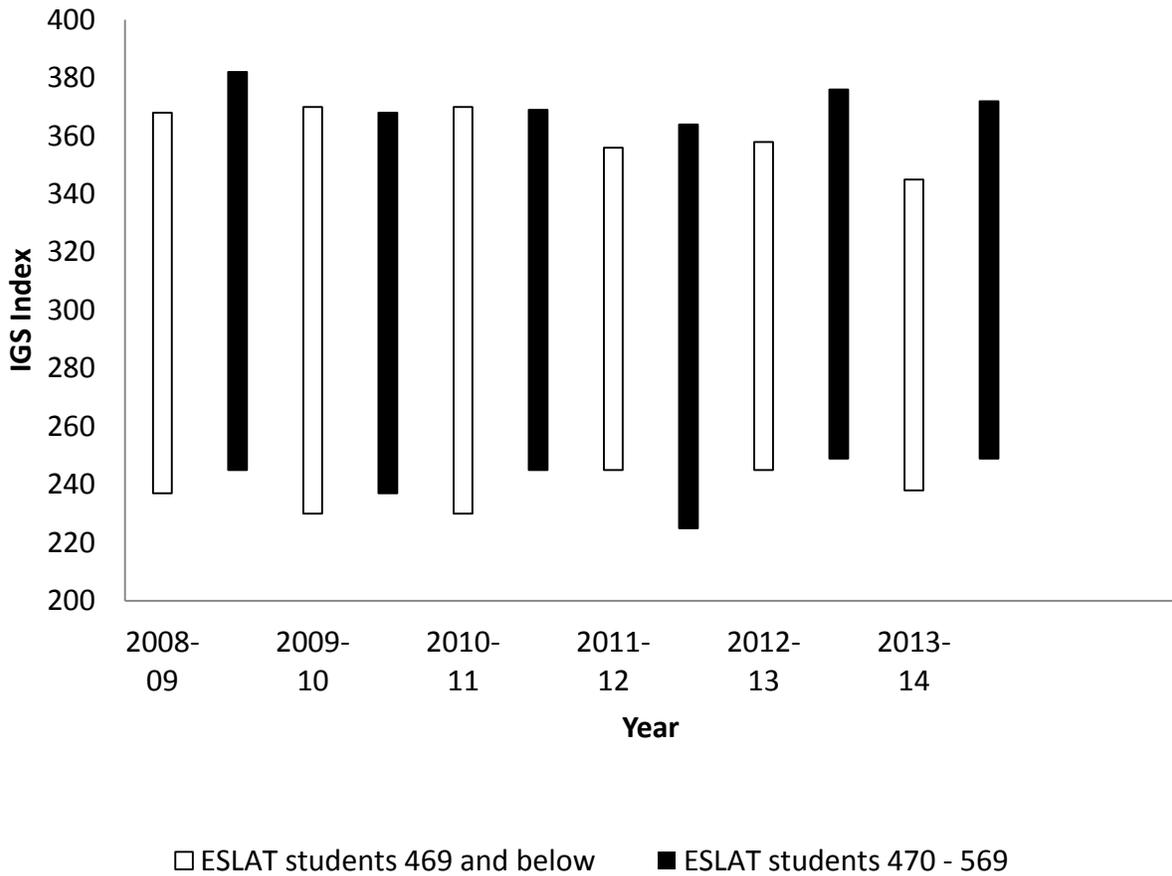
The third research question probes the area of predicting remediation. Upon acceptance to UPRM, students have two test scores – ESLAT and IGS. ESLAT scores have been studied in previous sections and chapters; thus, in the effort to discover relationships amongst data as Smith (2012) encourages for secondary data analysis, the third research question looks into possible relationships between ESLAT scores IGS. Índice General de Solicitud (translated: General

Application Index) is the score which determines if the student is eligible for their chosen major. Each department at UPRM has a different minimum IGS score for acceptance into their program, which also varies year to year. Hence, for admission into UPRM, one's IGS score is critical. As such, the research question proposes:

- Are students who are labeled “remedial” in English already disadvantaged in terms of IGS at admission?

Students who scored a 469 or lower on the ESLAT were labeled as remedial. In the Status Quo period, these students were enrolled in the remedial course INGL 0066. In subsequent periods, these students were placed directly into the basic course, INGL 3101 after passing the Exit Exam. In order to determine if these remedial-labeled students are already disadvantaged at admission, a comparison with non-remedial students is necessary. Students who marked a 470 – 569 on the ESLAT are not labeled as remedial. The range of IGS scores are presented in the following figure per remedial-labeled students and non-remedial students.

Figure 5.4: IGS range per ESLAT group



Thus, the range of IGS scores for both groups is very similar. Even with a significantly higher quantity of students scoring 470 – 569 on the ESLAT, the IGS scores remain remarkably close to the remedial-labeled group. As total numbers for both groups have decreased over the years, IGS scores hover around the same range. There does not appear to be much difference in IGS range for the two groups.

The second part of the third research question then takes this further in order to establish if there is a predictor for remediation. This offers the question:

- Is there a correlation between IGS and ESLAT that predicts remediation?

The following two tables offer a refreshment of data provided in the previous chapter. The first table illustrates correlations in the remedial-labeled group (scores of 469 and below on the ESLAT), while the second table illustrates correlations of the non-remedial group (scores of 470 – 569 on the ESLAT).

Table 5.6: Correlation between ESLAT and IGS for remedial-labeled group

Academic Year	Correlation	Strength of Correlation
2008-09	0.30	Weak moderate
2009-10	0.27	Weak
2010-11	0.21	Weak
2011-12	0.26	Weak
2012-13	0.31	Weak moderate
2013-14	0.30	Weak moderate

Table 5.7: Correlation between ESLAT and IGS for non-remedial group

Academic Year	Correlation	Strength of Correlation
2008-09	0.09	None or negligible
2009-10	0.02	None or negligible
2010-11	0.12	None or negligible
2011-12	-0.05	None or negligible
2012-13	0.08	None or negligible
2013-14	0.02	None or negligible

Correlations indicate that there are weak moderate to negligible relationships between ESLAT and IGS for both groups. In fact, the correlations are even smaller for the upper ESLAT group. Not only are the strengths of correlations for the lower ESLAT group weak moderate at best, but the relationships between ESLAT and IGS for the upper ESLAT group throughout a six year period indicate no or negligible relationship.

The results of the third research question are ground breaking for UPRM, Puerto Rico, and indeed literature concerning remediation as a whole. To the best knowledge of the researcher, there have been no studies published in peer reviewed journals in Puerto Rico which

investigate a correlation between ESLAT and IGS. Studies in the field of remediation at large have used pre-college test scores, such as ACT scores in Bettinger and Long's (2008) study in Ohio, but again, not in terms of investigating a correlation for remediation.

At UPRM, a six year period has indicated IGS scores are broadly within the same range for remedial and non-remedial labels; thus, a distinction for disadvantage students cannot be made. Furthermore, and contrary to popular belief, there is no correlation between ESLAT and IGS; hence, IGS cannot be used as a precursor for labeling a student as remedial.

#### **Research Question #4**

An investigation into test scores from public and private institutions may be able to allow theoretical insight into the quality of English education in said institutions. The results that have been presented include important previous levels of education and associative factors. As Bogards (1996) notes, one important factor in language acquisition is sociocultural contexts. Vygotsky's Sociocultural Theory (SCT) deals with sociocultural implications that affect the processes and products of language learning. These sociocultural contexts are found in mediation of language learning, affecting the internal and external environments of language learners. Thus, can the secondary data of the present study shed light on differences or similarities between public and private sociocultural learning institutions? Saville-Troike (2006) and Bown and White (2010) persist that Vygotsky's SCT attributes sociocultural factors to the success or impedance of language acquisition. Differences or similarities in student performance from public and private institutions could theorize important educational signals for success. To this end, data will describe the third research question:

- Are there differences in performance between public and private secondary institutions of the studied population that would indicate the quality of English language education at the secondary level?
  - a. What are the descriptive statistics of public versus private secondary institutions in terms of
    - i. ESLAT scores?
    - ii. Pass and failure rates?
    - iii. IGS scores?

In line with previous discussions, ESLAT scores were investigated for public and private institutions. The data provided in the previous chapter will not be replicated here for sake of discussion; however, one will note that private institutions saw a higher proportion of students score in the upper ESLAT group compared to public institutions throughout the six year period. So there appears to be positive effects in scoring higher on the ESLAT for private institutions, yet in the larger picture, the first and second research questions have already statistically proven a similar pass/fail rate between ESLAT groups. Additionally, the second research question displayed that the lower ESLAT group experienced quite similar pass and fail rates whether they received remediation in INGL 0066 or went directly into INGL 3101. While ESLAT scores may show differences in public and private institutions, the resulting outcomes show ESLAT scores not to be a considerable factor. Moreover, there is a disconnect between tests and properties of the SCT. The SCT is an interactive environment where the teacher and learner(s) interact to create meaning and build knowledge. Yet a test does not accurately assess this interaction, especially standardized tests such as the pre-admission exams and the Exit Exams. Examinations

do not allow for consideration of the SCT. From a SCT standpoint, examinations are not an appropriate tool to classify a learner as remedial.

As such, the discussion of public versus private turns to pass and failure rates in INGL 0066 and INGL 3101. For INGL 0066, the data given in the previous chapter display great variation. In 2008-09 private education witnessed a slightly higher pass and fail rates. In 2009-10 private institutions witnessed a failure rate of only 2.6% compared with 14.6% for public institutions. But in 2010-11 the results were reversed; private institutions witnessed a failure rate of 11.9% while public institutions saw only 5.5% of students fail. From these results, no concrete claims can be made about public versus private education. The data from INGL 3101 reveals interesting numbers. During the Exit Exam period, when INGL 0066 was not offered and all basic students were placed directly into INGL 3101, the data provide similar pass/fail rates.

Figure 5.5: Pass/fail per institution in INGL 3101 in 2012-13

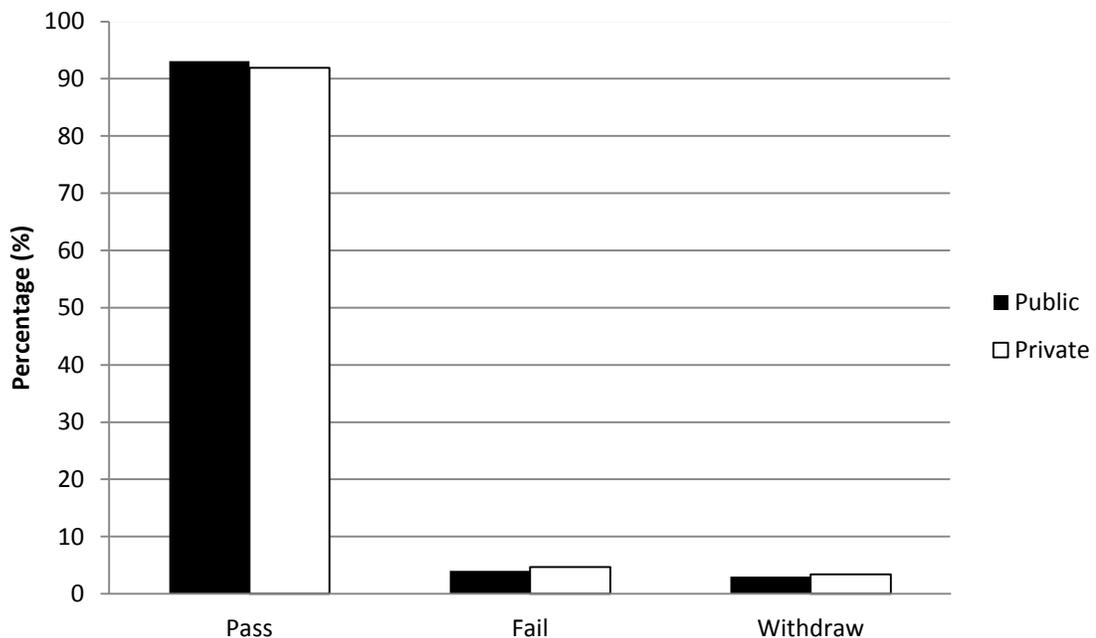
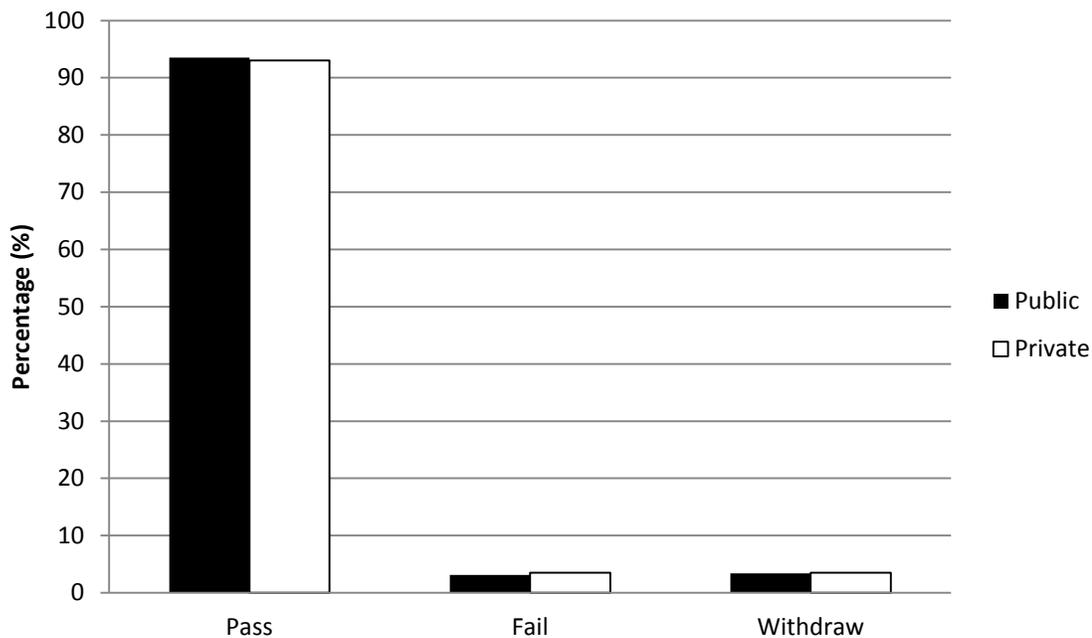


Figure 5.6: Pass/fail per institution in INGL 3101 in 2013-14



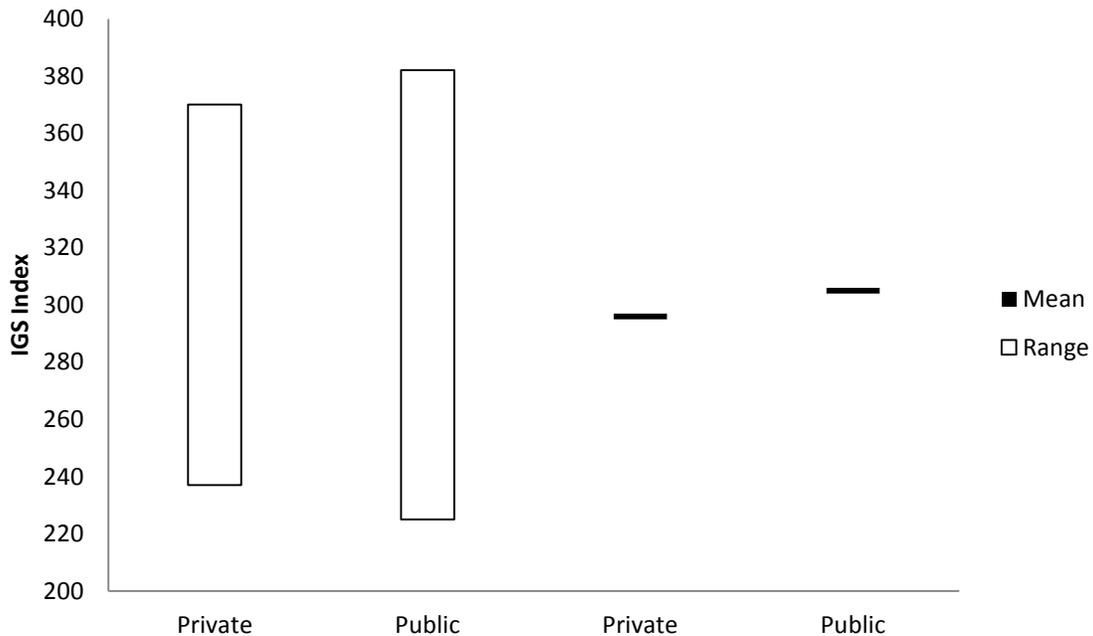
As the data for the second research question established, there was no performance difference for the lower ESLAT group whether they had remediation or went directly into INGL 3101. Similarly, these data exhibit nearly identical pass/fail rates between private and public institutions. Such data are not able to theorize a difference in education between the institutions, but perhaps can theorize there is no difference between private and public education for resultant outcomes in basic English.

The final theoretical factor for secondary education application is descriptive data of IGS score for each type of institution. ESLAT scores have shown a performance difference between public and private institutions, but answers to the previous research questions demonstrate little concrete evidence of difference. Correlations between ESLAT and IGS were then shown to be weak to negligible, but for the last theoretical application, one could investigate relationships between institutions and IGS. Using data from INGL 3101 for the six year period of study, thus including all students across the duration of the study, approximately one-third as many students

attended private secondary schools as public. One thousand thirty-three (1033) attended private high schools while two thousand nine hundred ninety-three (2993) attended public high schools.

The descriptive statistics showed little difference between private and public secondary institutions. The range of IGS scores for private institutions was 237 to 370, while public institutions witnessed a range from 225 to 382. Public institutions versus private institutions in mean IGS score was 304.8 and 295.8, respectively, with standard deviations a respective 28.9 and 28.6. Data of range and mean are illustrated in the following figure.

Figure 5.7: Public versus private statistical IGS range and median



With so little difference between the institutions, few concrete claims can be made concerning the sociocultural and overall ranking of education, other than the fact that theoretically there appears to be little variation between the institutions in English education results.

Theoretically speaking, private institutions appear to outpace public education in ESLAT scores. But test scores, particularly standardized examinations like the ESLAT, do not align with

assessment from an SCT perspective. Furthermore, overall IGS indexes showed very similar range and mean between the secondary institutions. Mixed results are seen when looking at pass/fail rates in INGL 0066, but data for the Exit Exam period revealed similar statistics between public and private institutions. This aligns with properties of the SCT, as INGL 3101 allows for necessary interaction between the instructor and learners. Oral presentations are one such form of assessment in INGL 3101 that parallels with sociocultural properties of the SCT, therefore allowing appropriate assessment of learner abilities in English.

As Martorell and McFarlin (2007) and other literature have noted, results of remediation are generally small and insignificant. Remarkably, so are the data on public versus private secondary education. Vygotsky's SCT posits sociocultural contexts, including personal and institutional qualities, can affect the outcome of language acquisition (Saville-Troike, 2006; Bown and White, 2010). Investigating student scores and outcomes in English at UPRM through a theoretical lens has offered a glimpse into the sociocultural institutions that influence students' language acquisition. Standardized exams are insufficient tools to assess learners' abilities to use and understand English in an interactive environment, but performance in INGL 3101, where such interactions are assessed through means including oral presentations, offers appropriate analysis of learners' abilities in English. Statistical data from INGL 3101 illustrate negligible differences between basic English students from private and public secondary education.

This chapter has provided discussion and analysis of secondary data for remedial and non-remedial labels in INGL 0066 and INGL 3101 at UPRM. In accordance with secondary data analysis as outlined by Smith (2012), data were presented and relationships were discovered. The research questions were answered in this chapter, and the subsequent chapter will conclude the present study and discuss future implications.

## Chapter 6 Conclusions and Implications

### Conclusions

Via secondary data analysis, the context of remedial ESL courses at UPRM has, for the first time, the possibility for concrete conclusions. Data were presented in Chapter 4 to allow one the opportunity to view statistical evidence without analysis and interpretation by the author, per Smith (2012) and secondary data analysis guidelines. Chapter 5 discovered relationships between data in connection with discussion and analysis of descriptive data again per Smith (2012) and a secondary data analysis approach. Each research question was answered and the conclusions will be briefly summarized here.

After remediation (i.e. INGL 0066), students experienced an 81.2% to 82.1% passing rate and 7.1% to 7.8% failing rate in the subsequent English course, INGL 3101. These numbers are marginally below the statistics for remedial-labeled students who went directly into INGL 3101. In the first semesters of the academic years 2012-13 and 2013-14, nineteen and ten students, respectively, who failed INGL 3101 would have had to take INGL 0066 under previous regulations. At a failure percentage of 8.1% and 8.3%, respectively, the numbers show that effects of remediation were marginal. Consistently throughout the six year period, whether students had remediation or not, over 91% of the students who were labeled remedial passed INGL 3101.

Critically, the pass and failure statistics in INGL 3101 for remedial-labeled students during the Status Quo period (mandatory remediation) were compared with the Exit Exam period (no remediation). The statistical evidence indicated nearly identical pass and failure percentages, regardless of having taken remediation or not. That is to say, remedial-labeled students who were

placed directly into INGL 3101 experienced negligible differences in the pass/fail outcome compared to those who took INGL 0066 prior to INGL 3101.

Furthermore, investigation of IGS scores revealed a similar range in scores between the lower scoring ESLAT group and the higher scoring ESLAT group. Prediction of ESLAT score based on IGS was statistically proven insignificant or negligible as a result of correlation. Finally, a theoretical perspective was used to compare public and private secondary English education. Data for INGL 0066 found mixed results, with numbers sometimes favoring public institutions to public institutions in other years. With previously mentioned data illustrating negligible effects of INGL 0066, the question turned to pass and failing rates in INGL 3101 for the recent two academic years, 2012-13 and 2013-14. Data showed nearly identical statistics between public and private secondary institutions. Thus, theoretically speaking, there seems to be little difference in outcome of English language results in higher education following private or public secondary education.

This research study and data shed light on a critical area at UPRM, and indeed in Puerto Rico. Tumultuous periods of remediation and non-remediation have offered statistical data for the investigation of characteristics and effects of English remediation at UPRM. These results will help administrators, professors, and students alike obtain a better understanding of higher education English remediation in the context of the University of Puerto Rico – Mayagüez. Puerto Rico recognizes the importance of English in connection with Spanish, yet English is not an essential part of domestic spaces (Pousada, 1996 and 2008). Thus, proficiencies in English will vary and spark debate for remediation. The present study answers a prevalent call for statistical data concerning remediation (Breneman and Haarlow, 1998; Bettinger and Long, 2006; Martorell and McFarlin, 2007; Bettinger and Long, 2008; Calcagno and Long, 2008).

Provided with statistical data, changes and improvements can be made with confidence at UPRM while continuing to pave the way for future studies and success.

### **Implications**

Since the onset of remedial education through the most current studies, researchers have noted the uncertainty in both the cost and effectiveness of remedial education. This is a lengthy period of uncertainty when studies from Brennehan and Haarlow (1998) to Martorell and McFarling (2007) and Calcagno and Long (2008) have looked at monetary costs and/or cost effects, while others have discussed a myriad of education factors. With every research article noting the lack of data and calling for more studies, this should at least spark questions concerning the investigation process of remedial education.

Paramount to this area is the context of remedial education. The cost and effectiveness of remedial education is supremely impacted by the particular context in which the institution and students are located. For example, the empirical study by Calcagno and Long (2008) was conducted at community colleges in Florida. Certainly this can be of benefit to locations that have community colleges, but much of the world does not have such institutions. Attewell et al. (2006) display that upwards of thirty percent more students enroll in remedial courses at community colleges than other institutions, a highly significant statistic. Studies in the United States of America also contain another peculiarity, the fact that programs there are most often immersion programs for English as a second language learner. Additionally, when such studies speak of English remedial education, this does not necessarily mean English as a second language but rather reading as a native speaker of English.

Costrell (1998) speaks to the dire importance of admission criteria on the cost and outcome of remedial education and notably that administrations, “often [have] little

understanding of the difficulties its admission policies impose on faculty and students” (p. 28). The influence of innumerable contextual details including, but certainly not limited to, population demographics, official and non-official languages, standards of K-12 education, and content of remedial courses affect the costs and results of such education. As Martorell and McFarlin (2007) observe, “the effect of remediation could vary across states” (p. 24) and go on to note that Ohio allows significantly more freedom to institutions to develop their own remedial policies while Texas has had numerous statewide policies for all higher education institutions. Even within one state Sengupta and Jepsen (2006) note that “[c]ommunity college demographics and course taking are diverse, especially compared with other higher education systems in California” (p. 20). If such variation exists in the United States, imagine the contextual factors in the worldview.

Such details are particularly important to future research in Puerto Rico and UPRM. The content of K-12 teaching could be investigated to obtain a better understanding of the student context and educational background. As the present study notes through application of sociocultural theory, statistical data offers little distinction between outcomes of private and public English language education. Cross (2010) notes the importance of such research in saying, “A sociocultural theoretical perspective on teacher practice provides the basis for a systematic, comprehensive, and theoretically robust framework that accounts for the social dimension of thought and knowledge” (p. 449-450). An exploration of content and further sociocultural details in both public and private secondary institutions would help increase understanding the status and results of English education in Puerto Rico. Likewise, content of the previously offered INGL 0066 remedial English course could be studied. The course was offered for some years prior to the scope of the present study, thus an analysis of content could prove vital for

understanding success and future implications in remedial English education. It is entirely possible and probable that certain methods and content of remedial instruction are more beneficial than others, as Bettinger and Long (2006, 2008) encourage for further studies in this area. In the present period, a pre-admission test is given to remedial students. The content of this entrance exam should also be studied. As years progress, more data will become available from this new period, thereby allowing research of validity and necessity of such an exam.

Within UPRM, and applicable to other universities, future studies could look at the remedial contexts of other departments such as mathematics. The remedial mathematics course at UPRM effects an even larger population of students than the present study. The pass and failure rates of INGL 0066 and INGL 3101 could be compared to other English courses and courses in other departments. Another area of interest would be transfer students. For congruency of student population and concerns mentioned in methodology, the present study did not include transfer students. Their educational background, especially in English, as well as success and standards could be studied to obtain an understanding of this important population of students.

Remedial language education is filled with details that make each context particularly unique. This would lead to the suggestion that each institution take into account their particular contextual factors for a proper investigation into remedial education. A review of the literature will help to orient the researcher to the many contextual details of remedial education and initiate the first step in assessing the context of the institution and the culture which the institution is situated within. An investigation like the study by Sengupta and Jepsen (2006) would be a useful second step to understanding the institution's demographics and linking such valuable

information to the literature and confines of remedial education. The lack of concrete data prompts the third step to collect data in light of the contextual factors.

The costs and effects of remediation are highly context-based. Furthermore, the impact of remedial education lies not just on the incoming factors and outgoing costs and effects, but on what lies in between as well. Steinberg (1998) and Costrell (1998), among others, remind one that costs of remedial education are not only in dollar amounts. Calcagno and Long (2008) elaborate, “[f]uture research should also focus on institutional policies, practices, additional services, and classroom strategies in order to explore differences in the effects of remediation by college and by particular ways of conducting remediation programs” (p. 34). Statistical data at UPRM have given new light to remediation at UPRM and indeed offered insight for other studies and contexts. As the present study has established, all students scoring below 570 on the ESLAT should be placed directly into INGL 3101. Now the focus may shift to practices and content of English courses in order to offer the highest quality education.

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## Appendix A

### Exit Exam Sample

**Instructions: Mark all the answers on the answer sheet.**

#### I. Vocabulary (25 points)

1. My sister was born \_\_\_\_\_ me and our brother. I am the oldest, he is the youngest and she is in the middle.  
a. down                      b. between                      c. high                      d. low
2. Jorge \_\_\_\_\_ to take a shower. He smells bad!  
a. moves                      b. leads                      c. provides                      d. needs
3. Please \_\_\_\_\_ voting for me for president. Think about it – it’s best for our people!  
a. ask                      b. consider                      c. read                      d. take
4. The city is going to \_\_\_\_\_ a new library. It will be ready by next summer.  
a. build                      b. live                      c. set                      d. stop
5. When you come to visit today, please \_\_\_\_\_ a cup of sugar. I don’t have any.  
a. bring                      b. pass                      c. drive                      d. receive
6. \_\_\_\_\_ your hardest on the exam; it is important to do your best.  
a. Wear                      b. face                      c. cover                      d. try
7. We go to the beach \_\_\_\_\_, so I know all the best places to swim.  
a. very                      b. over                      c. often                      d. ever
8. I don’t \_\_\_\_\_ what Iris says. She does not tell the truth.  
a. realize                      b. believe                      c. fill                      d. save
9. When we \_\_\_\_\_ the snake it was five feet long!  
a. measured                      b. listened                      c. occurred                      d. finished
10. I \_\_\_\_\_ the new candidate for mayor; I think he will do good things for our city.  
a. imagine                      b. figure                      c. support                      d. assume
11. My best friend and I \_\_\_\_\_ on everything; we never fight.  
a. address                      b. agree                      c. hurt                      d. attend
12. The \_\_\_\_\_ from the top of the mountain is beautiful; you can see for miles.  
a. view                      b. mind                      c. choice                      d. success
13. Leo knew if he worked hard he would have \_\_\_\_\_, and now he is a millionaire!

- a. animal                      b. success                      c. feeling                      d. deal
14. I feel a lot of \_\_\_\_\_ to be an engineer because my father, both brothers, and my aunt are all engineers.  
a. pressure                      b. staff                      c. firm                      d. charge
15. I paid for movie tickets for me and all three of my friends, so the total \_\_\_\_\_ was \$20.  
a. pain                      b. range                      c. cause                      d. amount
16. The storm was so \_\_\_\_\_; the skies were blue and then the rain came down a minute later.  
a. main                      b. hot                      c. sudden                      d. private
17. Michael was all \_\_\_\_\_ at the party. He didn't know anyone, and no one talked to him.  
a. open                      b. alone                      c. able                      d. recent
18. The \_\_\_\_\_ around here is fertile; many different plants grow here easily.  
a. call                      b. store                      c. earth                      d. authority
19. Our apartment only has one \_\_\_\_\_, so there is not very much natural light inside.  
a. window                      b. knowledge                      c. charge                      d. pain
20. Before you buy a car, you should \_\_\_\_\_ many different cars and how much money they cost.  
a. hurt                      b. compare                      c. attend                      d. replace
21. Don't \_\_\_\_\_ that plate! It's very hot!  
a. stick                      b. roll                      c. earn                      d. touch
22. It's important to take care of your \_\_\_\_\_; if you feel sick, you won't be able to do anything else.  
a. purpose                      b. owner                      c. health                      d. victim
23. Sara \_\_\_\_\_ the Spanish exam; she got a 45%.  
a. earned                      b. failed                      c. gathered                      d. ordered
24. I was in a lot of \_\_\_\_\_ from my broken leg. I cried every time I tried to walk.  
a. crowd                      b. guard                      c. pain                      d. tool
25. I'm not in good \_\_\_\_\_. It takes me about 15 minutes to run a mile.  
a. shape                      b. gift                      c. search                      d. device

## II. Reading (25 points)

Reading Selection # 1

Walmart raises the bar

(adapted from an article by Frances Ryan, Caribbean Business, 18 Aug 2011: S13-S14.)

¶1 ¶1 Walmart Puerto Rico, the largest local company and store, is going green and taking the island along on the journey. It **kicked off** its green program in June 2009. “We are transforming every aspect of our operation,” said a Walmart official. There are plans to replace 33% of Walmart’s local **fleet** of vehicles with trucks that are 30% more fuel-efficient and there is a local recycling project that included more than 50 million pounds of material last year. The recycling program has saved around 272,000 trees. It has also provided much relief to the **landfills** in Puerto Rico, which are already too full of trash.

¶2 Walmart Puerto Rico has reduced electricity use 21% since last year. They replaced air-conditioners, installed LED lights, and turn off many lights during the daytime. Even though it has had **tremendous** success in saving energy, Walmart’s energy costs are still high. Eventually, all Walmarts in Puerto Rico will use solar energy. All of that solar energy will be enough to power 400 houses a year.

¶3 Additionally, over 350 local farmers are now able to sell fresh products to Walmart – already 25% of Walmart’s fruits and vegetables come from local farmers. The real challenge is to get 50% of the fruits and vegetables sold in local Walmart stores from local producers.

¶4 Thanks to its farmer’s program and work with local companies, the company is also focusing on exporting Puerto Rico products to other Walmart markets. Currently, Walmart is working on three top export-product categories: tuna fish, Puerto Rican coffee to be sold under Walmart’s Great Value private label, and frozen root vegetables (viandas).

Vocabulary in Context

Select the word or phrase that is closest to the underlined words in the article.

26. **Kicked off** in ¶1 is closest in meaning to  
a. Pushed with feet ended  
b. started  
c. abandoned  
d.
27. **Fleet** in ¶1 is closest in meaning to  
a. group automobile  
b. small  
c. individual  
d.
28. **Landfill** in ¶1 means  
a. Place to keep large amounts of land to fill up trucks  
b. place to throw away garbage  
c. place to grow trees  
d.
29. **Tremendous** in ¶2 is closest in meaning to  
a. very little  
b. none  
c. terrible  
d. great

## Comprehension

Instructions: Select the best answer, and mark the appropriate letter on your answer sheet.

30. The main idea of this article is:
- Walmart Puerto Rico is lowering electricity use.
  - Walmart is more environmentally friendly than any other company in Puerto Rico.
  - Walmart is selling more and more local products.
  - Walmart Puerto Rico is doing many things to be more local and green.
31. What is the main idea of paragraph 2?
- Walmart is committed to using solar energy.
  - Walmart continues to work to lower electricity use.
  - Turning off the lights and using LED lights has saved a lot of energy.
  - Walmart has high electricity use.

Instructions: If the statement is true, mark **A** on the answer sheet. If the statement is false, mark **B**.

- Walmart's recycling program has saved about 272,000 trees already.
- Walmart plans to replace some of its vehicles with more fuel-efficient trucks.
- Currently 40% of Walmart's fruits and vegetables come from local farmers.
- Walmart is planning to export Puerto Rican tuna, coffee, and mangos.
- Walmart reduced its electricity use by 21% in one year.

## Reading Selection # 2

Local restaurant chain finds niche offering potatoes in Latino market  
(adapted from an article by James Ferre, Caribbean Business, 18 August 2011: 30.)

¶1 Local fast food chain The Hot Potato is among Puerto Rico's Top 400 Locally Owned Companies. Every week, the company's restaurants sell a truck full of potatoes, which adds up to about one million pounds every year. Customers' favorite topping? Cheese sauce.

¶2 The company's CEO, John Regis, was looking for an alternative to compete with the usual fast-food restaurants found in malls. When The Hot Potato opened in Plaza Las Americas in 1990, the restaurant was so successful that it **ran out** of potatoes in the first three days. Regis had to rush to local supermarkets in search of the large potatoes he needed. Since then, the company has secured large U.S. suppliers that can provide a constant supply of potatoes.

¶3 Part of the success is due to the fact that in Puerto Rico, baked potatoes are something of a **novelty**. They aren't part of local consumers' everyday diet. In fact, the company ended up closing six fast-food baked-potato concept restaurants in Florida alone because among U.S. consumers, baked potatoes, already a **staple** of their diet, don't generate the same interest as in Puerto Rico.

¶4 The company started a program to motivate employees called, "*Estás en las papas?*" The phrase literally translates to, "Are you in the potatoes?" However, in Puerto Rican culture it also means that a person is **well-off**, economically or personally. They created an acronym for *papas*, which is Spanish for potato. The 'p' **stands for** perseverance, the 'a' for positive attitude, the second 'p' stands for promoting teamwork, the second 'a' for acting quickly, and the 's' stands for excellent service. The program has helped the company succeed.

### Vocabulary in Context

Select the word or phrase that is closest to the underlined words in the article.

37. **Ran out** in ¶2 is closest in meaning to  
a. To run quickly      b. to have nothing left      c. to have too many      d. to make
38. **Novelty** in ¶3 is closest in meaning to  
a. Something new and interesting and repellent      b. something familiar      c. something strange      d. something written in a novel
39. **Staple** in ¶3 is closest in meaning to  
a. paper clip      b. fundamental part      c. exciting part      d. low-calorie
40. **Well-off** in ¶4 means  
a. a farmer      b. old      c. closed      d. rich
41. **Stands for** in ¶4 is closest in meaning to  
a. waits for      b. on two legs      c. represents      d. helps

### Comprehension

Instructions: Select the best answer, and mark the appropriate letter on your answer sheet.

42. The main idea of this article is:  
a. Potatoes are popular vegetables.  
b. Baked potatoes are an uncommon food in Puerto Rico.  
c. The Hot Potato is a very successful restaurant in Puerto Rico.

- d. The Hot Potato sells a million pounds of potatoes a year.
43. What is the main idea of paragraph 3?
- People like different foods in Puerto Rico than in Florida.
  - Baked potatoes are popular in Puerto Rico because they are an uncommon food there.
  - The restaurant did not do well in Florida.
  - People in the U.S. eat a lot of potatoes.
44. According to the article, which of the following is **not** an objective of the “*Estás en las papas?*” employee motivation program?
- Excellent service
  - Perserverence
  - Promoting teamwork
  - Honesty

Instructions: If the statement is true, mark **A**, if the statement is false mark **B** on the answer sheet.

45. Customers’ favorite topping is broccoli sauce.
46. The first The Hot Potato opened in Plaza Las Americas in 1995.
47. The Hot Potato restaurants get their potatoes from a supplier in the U.S.
48. The company closed six baked potato restaurants in Florida.
49. The Hot Potato company is one of Puerto Rico’s 400 most successful businesses.
50. The phrase “*Estás en las papas?*” has only one meaning.

### III Grammar (25 points)

51. The dogs in the neighborhood \_\_\_\_\_ after every car that passes by.
- runs
  - run
  - running
  - are run
52. \_\_\_\_\_ in trouble for coming home so late?
- Will he be
  - Will be
  - Will he is
  - Will he being
53. I’m frustrated because you \_\_\_\_\_ to me!
- am not listen
  - are not listening
  - are not listen
  - am not listening
54. My brothers \_\_\_\_\_ how to sit quietly.





74. a.) Zulma I listened to talk on the phone.  
talk.

b.) I listened to Zulma talk on the phone.  
talk.

c.) On the phone Zulma I listened to

d.) I listened to on the phone Zulma

75. a.) Scary movies wants to watch Jeff tonight.  
to watch.

b.) Tonight Jeff wants to watch scaries movies.  
tonight.

c.) Tonight Jeff wants movies scary

d.) Jeff wants to watch scary movies

## Appendix B

### Department Letter of Request to Chancellor

March 13, 2012

Dr. Jorge Rivera Santos

Chancellor

President of the *Junta Administrativa*

Dear Dr. Rivera Santos:

The purpose of this letter is to request dispensation from JA Certification 10-11-129 for the equivalent of INGL 0066 (Pre-Basic English), now being offered as *El Instituto de Fortalecimiento en Inglés*. The dispensation of this certification will allow the Department of English a three year window to conduct research on the effectiveness of Pre-Basic English. As a Department we wish to lower the entrance level for INGL 3101 (Basic English) from a score of 470 on the ESLAT to 200, temporarily. It is of the informed opinion of both the ESL Sector within the Department of English as well as the teaching faculty within the Department, that such a decision is in the best interests of our students as well as our administration, until we are proved otherwise by empirical data collected within the Department.

As you are aware, in April of 2011, Certification JA 10-11-129 was passed which now makes INGL 0066 effectively nonexistent for administrative purposes. Its equivalent is now offered in

conjunction with the DECEP at a cost of \$150 for each per student. Unfortunately, when the *ad hoc* committee on Pre Basic Courses (both Math and English) met and decided to take such action, they only took into consideration data regarding the success of our summer institute sections. However, neither the director of the department or the INGL-0066 course coordinator was consulted on the matter. If we had been consulted, we would have been able to tell the committee that the success of the summer program was indeed true, but that it would be unrealistic to offer a summer course to all students entering the university who test into INGL-0066. Furthermore, much of the data used in the reports came from two summers institutes where students' tuition was paid for by a USDA Grant and not by the students themselves. Additionally, the curriculum used in those two special summer sections curtailed specifically to the Agriculture students who were enrolled and paid for by the USDA grant.

While JA 10-11-129 has worked out very well for the Mathematics Department, who has had no problem filling their sections, the Department of English has struggled to get students to pay the \$150 to enroll in the course in the summer and fall semester. Despite mailing advertisements and sending emails to the 250 incoming freshman throughout the summer of 2011, only 20 students enrolled in our summer section forcing us to cancel one section. In the fall semester, because the Registrar could no longer directly enroll freshman in a DECEP course, we were only able to recruit a total of 25 students to take two sections and thus we had to cancel the third section due to low enrollment.

Thus at the time of writing, there are approximately 185<sup>1</sup> students who have not taken the course, or passed the exit exam, and therefore cannot take the INGL 3101 (Basic English). If we

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<sup>1</sup> Approximately 20 students have passed the "exit exam" which was offered both in the summer and throughout the fall semester of 2011.

continue at this rate, next year we will double the number of students who are not able to register in INGL 3101. This is not only problematic for the students, but also for the administration due to the logistics involved in the creation of sections and the professor's workload. Due to this situation, in the fall 2011, the Department of English had to close six INGL 3101 sections because students did not take INGL 0066 in the summer and therefore never were able to enroll in the subsequent class. The sections that were offered were hardly filled and provided \$0 in revenue to the Department as all funds were used to pay for the instructors.

More recently, the Department has been blessed with the generosity of "El Proyecto Acceso al Éxito de la Vicepresidencia de Asuntos Académicos" grant which has agreed to pay the tuition for all of the students who are currently in the system who have not passed the Pre-Basic exit exam or the Pre-Basic English Institute. It is our hope that we are able to take advantage of these non-recurring funds and get as many students out of the system as possible. That way, newly accepted students in the fall semester will move directly into INGL 3101 (Basic English) so that we can conduct our study and make decision regarding the future of Pre Basic and English remedial classes based on empirical data.

Please see attached information that further supports our request.

We appreciate your consideration,

Sincerely,

Kevin S. Carroll, Ph.D.

Interim Director

Approved by: Juan López Garriga, Ph.D.

Dean of Arts and Sciences

## Appendix C

### Department Letter of Justification to Chancellor

March 13, 2012

Dr. Jorge Rivera Santos

Chancellor

President of the Academic Senate

Dear Dr. Rivera Santos:

The Department of English hereby requests dispensation from Certification 03-26 approved by the Academic Senate on April 29, 2003. This petition is requested in order to conduct a three-year study to collect empirical evidence that will serve to evaluate systematically the effectiveness of the course INGL 0066 (Pre-basic English). After the three year study, the Department of English will decide what is best for our students.

The following are the recommendations made by the certification and the position of the Department of English along with those from the English as a Second Language (ESL) Sector (within the Department) who oversees the curriculum and assessment of INGL 0066 Pre-basic English (and its equivalent) course:

1. “Que no se modifique la Certificación 99-15 ni los acuerdos del Departamento de Inglés sobre los cursos MATE 0066 e INGL 0066, respectivamente.”

**ESL Sector and Department of English Position:**

While statistics in 2003 showed that INGL 0066 (Pre-basic English) had a 60% pass rate, a major curricular revision has taken place since then. The English as a Second Language (ESL) Sector worked on a curricular revision from 2005-2010. This committee is composed of experts in the field of curriculum and instruction and ESL. The revisions included the curricular alignment of objectives across the Basic English track (INGL 0066, 3101, 3102, 3201, 3202). Based on the data from the study, it was concluded that INGL 0066 and INGL 3101 had the same goals and objectives and in fact, the number of grammar points that had to be covered in INGL 0066, as originally designed, was larger than the number of grammar points for students taking INGL 3101. In other words, INGL 0066 was more difficult to pass than INGL 3101. Similarly, the reading and writing objectives of INGL 0066 were very similar to those in INGL 3101. Therefore, students had to take a course that was more difficult than the course it was a pre-requisite for and that did not count for their course load because of its “remedial” status in the academic catalog.

Historically, the placement of students in English Basic courses (Nivel de Ubicación) has been the departments’ prerogative. Annually, the Registrar communicates with the Director of the Department of English to inquire as to whether or not the entry-level requirements should be changed. Given the changes to the curriculum based on a careful revision by the ESL Sector, the Department of English should be given the opportunity to merge both populations in order to study the effectiveness of INGL 0066.

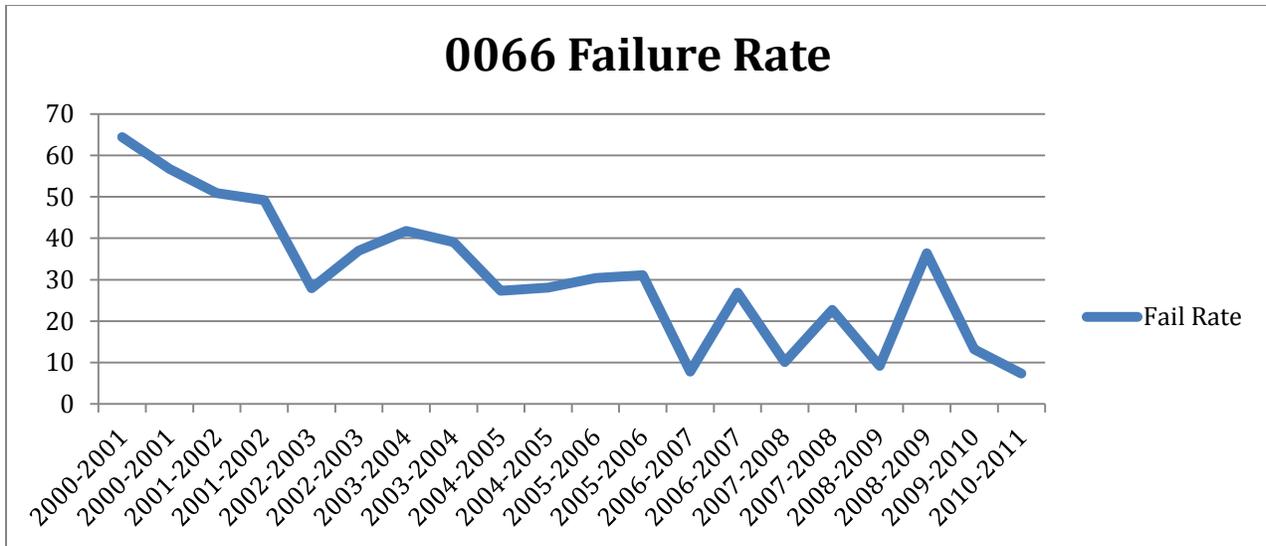
2. “Que los cursos remediales MATE 0066 e INGL 0066 y los esfuerzos relacionados sean evaluados sistemáticamente por los departamentos concernidos y que éstos sometan un informe anual al Decanato de Asuntos Académico, donde se evaluará la efectividad de los mismos. Que en los cursos MATE 0066 e INGL 0066 incluya la evaluación de los instructores de estos cursos.”

**ESL Sector and Department of English Position:**

Unfortunately the only data that was collected and analyzed to evaluate the effectiveness of INGL 0066 was data from the Summer Institutes. These institutes were successful because students were able to pay for the course and they were taking the course under different conditions than in the regular semester course. Those students who failed were able to register in INGL 0066 during the semester because the department had the control over the course.

Also, there were two groups of students who were able to take the Summer Institute from 2007-2009 paid by USDA funds from a past grant that was held in the Department of English. These students were able to take the course in the summer because they did not have to pay for it themselves.

Regular semester data was not considered either. Data from the regular INGL 0066 course taught during the semester shows that after the changes to the curriculum in the fall 2005, students were passing the course at a higher rate than in 2003 as can be seen in the figure below.



3. “Que se viabilice el que estos cursos se ofrezcan a los estudiantes de Nuevo ingreso durante la sesión de verano previa al primer semestre de su primer año académico, como parte de una actividad más general sobre adaptación a la vida universitaria.”

### ESL Sector and Department of English Position

As a result of the Academic Senate Certification 10-11-129 we have had great difficulties recruiting students to take our courses in the summer. For students who take INGL 0066 in the summer there is a high success rate. However, the majority of students who need the course have never registered in the summer. We speculate that this is due to cost of tuition, room, and board in the summer. In the past, when INGL 0066 was given by the department over 400 students were admitted who had to take the course and we were only able to fill a maximum of four sections in our most successful summer, representing less than 25% of those who needed the course. With far fewer students being accepted into the university who have a score of under 470 on the ESLAT (250 in 2011 versus an average of 349 for the years 2007-2010) it is unrealistic to believe that we can convince a sizable population to enroll in the summer institute.

Furthermore, it has been our experience throughout the first semester of the 2011-2012 academic year that students, especially freshman who are not as versed on the registration process, do not register for the Pre-Basic Institute and they do not study enough for the exit exam and therefore are stuck in a stage of limbo.

### **The Study**

In order to collect data and systematically evaluate the effectiveness of INGL 0066, the cutoff score for INGL 3101 needs to be changed from 469 to 200. In this way, all students who start as freshman in 2012-2013 who would have been Pre-basic students could be placed in INGL 3101 (Basic English). According to the literature on remedial courses and language studies, this population benefits from being able to take classes with their peers who are more proficient in the language. By segregating students and labeling them as remedial, students are not only unable to improve their language skills, but are also less motivated to do so. This also creates problems in terms of retention and graduation of students.

It is worth noting that the Department of English is not trying to eliminate INGL 0066. What we are proposing is to place all students who would have taken pre-basic directly into INGL 3101 for three years while we collect empirical data to assess if the pre-basic requirement has an effect on success in INGL 3101. What the Department of English is hoping to do is to systematically evaluate the effectiveness of the course by collecting empirical evidence during a three year period. In the future, if our data suggests that we need to keep INGL 0066, we will do so, and more than likely either raise or lower the cutoff score given our empirical findings.

It is important to understand that the adoption of this proposal will allow the researchers to conduct the study, and will also raise the admissions standards. Students will have to take and pass the Basic English (INGL 3101) to meet their degree requirements.

Please see attached information that further supports our request.

Thank you for your consideration.

Sincerely,

Kevin S. Carroll, Ph.D.

Interim Director

Approved by: Juan López Garriga, Ph.D.

Dean of Arts and Sciences

## **Appendix D**

INGL 3101 Syllabus

**University of Puerto Rico, Mayagüez**

**English Department**

**INGL 3101 1<sup>st</sup> Semester 2011**

**Section 050 11:30-12:20; Section 061 12:30-1:20**

### **1. General information**

Instructor:

Office:

Office hours:

Phone:

E-mail:

### **2. Course Description**

This course is designed to improve students' speaking, listening, reading, and writing abilities in English while also expanding vocabulary and increasing grammatical accuracy. The purpose is for students to build on their current knowledge so they can successfully use English. This course is a prerequisite for English 3102.

The course structure is 3 hours of lecture and workshops per week and 15 hours of laboratory work online.

### **3. Textbook, supplies, and other resources**

*The Omnivore's Dilemma (Young Reader's Edition)* by Michael Pollen (2009). ISBN# 978-0-8037-3500-2. Available through Amazon or by special order with your instructor.

(Approximately \$10.00)

Materials for reading and grammar will be available electronically.

A monolingual dictionary of your choice

### **4. Course goals**

To address its purpose, INGL 3101 focuses primarily on developing students' ability to understand written and spoken English by improving reading, writing, and speaking skills. Attention is also given to vocabulary learning strategies and grammar. The course focused mainly on reading and writing for academic purposes. The following course goals are also addressed:

Students will be able to:

- Communicate effectively when reading, writing, and speaking in English.
- Think critically.
- Work collaboratively with peers in small groups and as a class.

### **5. Course Objectives**

This course follows a skills-based approach to reading, writing and speaking.

At the end of the course, students should be able to:

### **Reading Skills**

- Preview (e.g. scan for specific information, skim to get main idea of a text)
- Highlight important or relevant information in a text
- Identify the main idea in a text
- Find evidence in a text
- Recognize text organization
- Understand information in graphics
- Interpret information in graphics
- Use graphic organizers to organize information when they read a text
- Explain the content of a reading to someone else
- Identify the writer's purpose/audience
- Read independently and comprehend authentic materials in academic disciplines and various genres
- Read and identify different genres (e.g. research article, newspaper articles, short stories, young adult novels, poems)

### **Vocabulary Learning Skills**

- Use a monolingual dictionary
- Use and understand glosses and glossaries
- Understand common collocations and cohesive devices
- Understand and recognize polisemy (words that are spelled in the same way, but have several meanings)

- Find the definition of a word in the text
- Use strategies to increase vocabulary learning such as keeping a word bank to continue learning vocabulary independently or the use of conceptual maps

### **Writing Skills**

- Use pre-writing strategies such as Venn Diagrams and graphic organizers
- Write a paragraph with a topic sentence and supporting details
- Use transition words appropriately
- Write coherent paragraphs
- Recognize different rhetorical modes such as narration and description
- Choose appropriate verb tenses and lexicon when writing simple and complex sentences in English

### **Speaking Skills**

- Ask and answer informal questions in English
- Give 1-3 minutes informal presentations in English to classmates based on prompts
- Deliver a 2-3 minutes formal presentation to the class using notes

### **Grammar Points and Objectives**

- Identify and use the following verb tenses when writing and speaking in English:
  - Simple present
  - Present continuous
  - Simple past
  - Past progressive using time clauses
  - Past continuous

- Future using will/be going to/if and time clauses

- Identify and use *Wh* and *How* questions in writing and speaking
- Identify and use comparatives and superlatives
- Monitor your own writing and speaking in English

## **6. General requirements and specific policies**

All students must:

- attend class regularly and punctually;
- participate in class, group, and pair tasks in class in English;
- complete on time all assignments in class and as homework;
- take the final exam and all class tests and quizzes;
- keep all graded assignments as a record of progress;
- take primary responsibility for learning (e.g., ask questions or get help when necessary);
- demonstrate (through class assignments) their knowledge of the topics covered in class.

## **7. Policies regarding absences**

- Students who miss a class and have an appropriate excuse (e.g., a doctor's note) may be excused.
- Students who miss a test and have an appropriate excuse may be given a make-up.
- Students who do not participate or bring required materials to class may be marked absent.

## **8. Instructional strategy**

The course instructor will explain and model how to work on the reading, vocabulary, and grammar points listed in the course syllabus. You will often work in groups or pairs so that we can learn from each other and practice together.

## **9. Evaluation**

The final grade for the course is broken down as follows:

- 10% laboratory (Tell Me More)
- 30% three partial exams
- 20% final exam \*
- 10% writing assignments
- 30% (quizzes, homework, group work, oral reports/presentations)

The grading curve for INGL3101 is as follows:

- A = 90 – 100
- B = 80 – 89
- C = 70 – 79
- D = 65 – 69
- F = 0 – 64

\*The final exam is departmental. Students cannot make up this exam unless they have a valid excuse (medical excuse, military orders, and court orders are examples of valid excuses). The

final exam also includes a writing component based on the novel that students read. They take this part of the exam the last week of class.

## **10. Instructors' responsibilities**

INGL 3101 instructors will:

- prepare for and teach assigned sections in such a way that students cover the material of the course and have an opportunity to meet its stated objectives if they work as instructed;
- hold required number of office hours and make special arrangements where necessary and possible to meet with students who cannot meet during official office hours;
- keep attendance records for every class and report these records to the registrar's office when requested;
- treat students respectfully and ensure that students do the same to each other and to the instructor.

## **Vocabulary List**

Students must also learn the common irregular past tense verb forms and their meanings (your instructor will provide you with a list).

## **Writing assignments**

Writing is an integral part of this course. You will have to write in class about specific issues or topics. You will also have to hand in other types of writing assignments such as pre-writing activities and graphic organizers. Some of these you will do in class and some of these you will do as homework. Your professor will explain the instructions for each one of the written assignments.

## **Attendance Policy**

Attendance at this university is mandatory. You will be allowed to make up work that you missed during an illness or emergency if you provide appropriate documentation.

## **Homework Policies**

All homework must be turned in on time. Late assignments will not be accepted and will receive a grade of 0 points.

## **Laboratory instructions and policy**

Students are required to complete 15 hours in the Tell Me More program, found at <http://www.tellmemorecampus.com>. Your username and password are both your student number. If you have technical difficulties with the program, please see Mr. Albert Cruz in CH-326. You must complete the 15 hours by the last day of classes.

## **Special Accommodations**

**According to Law 51** students will identify themselves with the Institution and the instructor of the course for purposes of special accommodations. For more information please call the Student with Disabilities Office which is part of the Dean of Students office (Chemistry Building, room 019) at (787)265-3862 or (787)832-4040 extensions 3250 or 3258.