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EVALUATION OF NES AND NNES STUDENTS' PERCEPTIONS OF NES AND NNES INSTRUCTORS IN ENGINEERING

BY

CARRIE N. WELLS

THESIS

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Advisers:

Professor Randall Sadler, Chair Professor Bruce Litchfield

ABSTRACT

In response to the continually growing population of internationals at the University of Illinois in Urbana-Champaign, the population of international Engineering students has also grown, with it, the number of international TAs/instructors. The previous literature on native English speaking students' perceptions of Non-Native-English-Speaking instructors has shown that language barriers and accents have been a cause for difficulties within the class between instructors and students. Thus, this paper aims to look at the relationship between students and instructors, specifically Non-Native-English-Speaking instructors who come to the university as professors and TAs and determine if there are similar difficulties within the Engineering department between its students and instructors. The method of research for this study included surveying as well as interviewing Engineering students, past and present, to determine if these students have had any difficulties in learning due to accent/language barriers. Thus, this research looks at the perceptions that Native-English-Speaking students (NES) as well as Non-Native-English-Speaking students (NNES) have towards Native-English-Speaking teachers (NEST) and Non-Native-English-Speaking teachers (NNEST). In comparing these two groups of students and instructors, the results showed that both NES and NNES students within the Engineering department have a preference for NESTs due to language barriers/difficulties both among Native English speakers as well as Non-Native English speakers. This paper also recommends solutions to these language barriers such as workshops or classes for instructors who have been rated lower among student rating, more intentional pairing between Native and Non-Native English speaking TAs with professors, as well as more intentionality from the instructor at the beginning of the semester to alleviate some of the problems that may arise due to language misunderstanding. More research should follow that focuses specifically on Native and Non-Native English speaking instructors and their perceptions of how language has impacted their instruction as well as the students' comprehension.

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CHAPTER 1: INTRODUCTION

At the University of Illinois, the number of international students has been rising continually on a yearly basis, with the number of international students equaling over 10,000 in the year 2015, which is more than doubled from 2006, as seen in Figure 1 (Division of Management Information, 2015). The increasing numbers of international students equates to an equally large number of non-Native-English-Speaking (NNES) students who are joining the campus, in addition to Native-English-Speaking (NES) students who already attend. Over the course of five years, with the number of international students attending this university doubling, as well as the number of students who come from NNES backgrounds also increasing, this means that those students who are coming to the University of Illinois (Illinois) are not only attending traditional courses, but many of these NNES students are receiving grants and funding through various programs, such as Teaching Assistantships (TA) and/or Research Assistantships (RA).

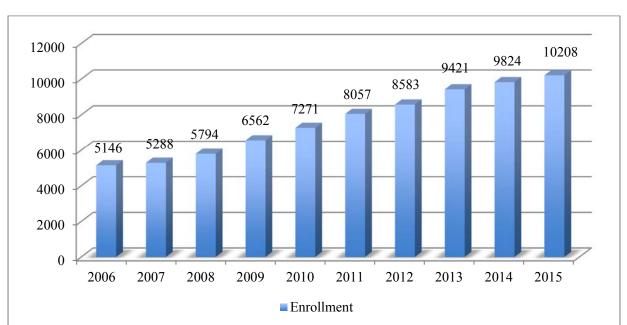
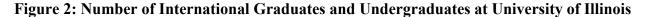
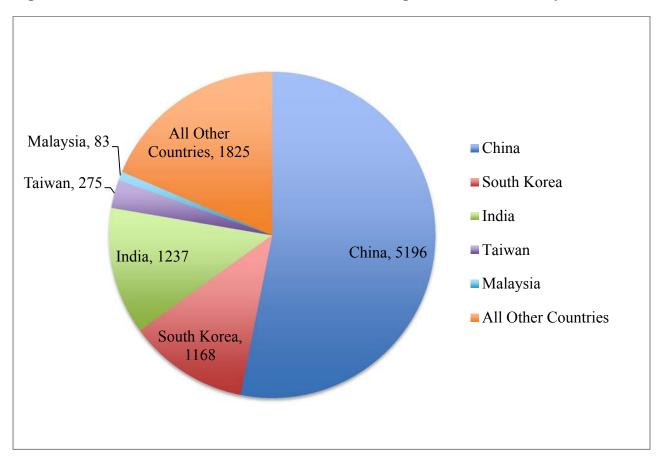


Figure 1: Number of International Students in Attendance at University of Illinois

Thus, a large number of international students are receiving teaching assistantships and being put into positions of authority within classrooms; combined with the rising number of international professors who are entering the University of Illinois, this begets a greater number of Non-Native-English-Speaking teachers (NNESTs) who are teaching in University of Illinois classrooms (Division of Management Information, 2015). The number of Chinese students (5,196) as of fall 2015 was over half of all international students at the University of Illinois. This number was divided between graduates and undergraduates with 3,070 undergrads and 2,126 graduates among Chinese students (Figure 2).

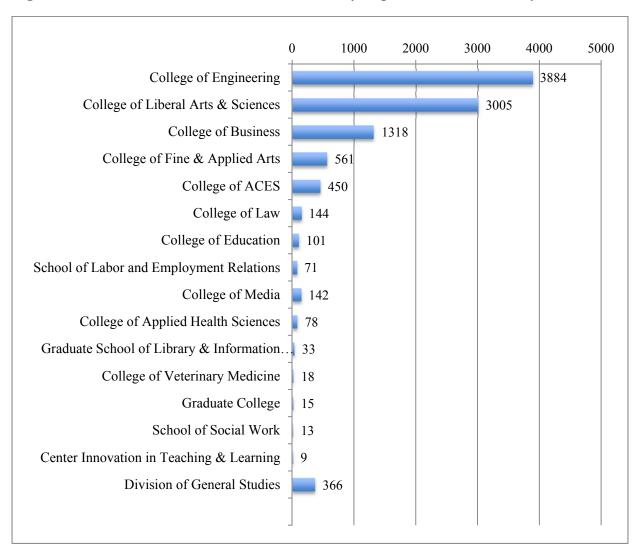
Looking at the second greatest number of international students, the number of Indian students, whose native language is Hindi, equaled 1,237. South Korean students comprised the third largest group of international students. The number of South Korean students, whose native language is Korean, equaled 1,168 students. These were the three major international groups in attendance at the University of Illinois in fall 2015. For the remainder of international students in attendance, the numbers were not as substantial as for the above three major groups; there were only 275 Taiwanese students; 136 Indonesians, 118 Singaporeans, and 103 Brazilian students in attendance. The remainder of the other countries had smaller and smaller numbers of total students who attend, although there were students from 113 countries outside of the United States at Illinois.





Thus, the greatest number of international students in attendance at the University of Illinois were from China, India, and South Korea as the majority. These students' majors were significantly represented in the College of Engineering, which Figure 3 shows has the greatest number of international students, with a total of 3,884 students, both graduate (2,062) and undergraduate (1882), among all the programs (International Student & Scholar Services, 2015). These majors are significant in regards to this study, for they show the great number of international students who are majoring in engineering. Also, in looking at the number of international students in graduate positions within Engineering, the number of students who have received TA-ships in order to pay for their education has risen among international graduate students.





In addition, by looking at the international faculty and staff, although it includes both TAs and non-students, such as professors and instructors, the number of international staff and faculty among internationals is represented within the College of Engineering at almost 22% of the staff and faculty, the largest percentage among all the colleges on campus. Overall, among the 2,032 international faculty and staff on campus, 451 of those faculty and staff are represented in the College of Engineering, again, with the top three major countries representing the highest number within the College of Engineering, with 798 faculty and staff from China, 195 from India, and 157 from South Korea (ISSS, 2015).

By looking at the percentage of TA-ships among international students, specifically

Chinese, Indian, and Korean students, one can see the great influence that Non-Native-EnglishSpeaking students have in engineering classrooms on the University of Illinois campus.

Obviously, engineering classrooms have exposure to more than just persons from these three
major countries, but by observing the large number of students represented from these countries,
one can see the immense influence that NNES have within the College of Engineering.

Obviously, there are a great number of NES international students as well as NNES international
students who are instructors within Engineering, yet the majority who will be discussed within
this study come from countries where the national language is not English.

Therefore, in looking at this focus of international instructors within Engineering, one will be able to determine the perceptions that students (both NES and NNES) have of their international instructors. When studies research NES and NNES instructors, they often gather their research from English as a Second Language (ESL) students (Kelch & Santana-Williamson, 2002, Moussu, 2010,) and often have focused on ESL students' perceptions of Native-English-Speaking Teachers (NESTs) and Non-Native-English-Speaking Teachers (NNESTs) in an English as a Foreign Language (EFL) context (Al Omrani, 2008; Alseweed, 2012; Kasai, Lee, & Kim, 2011; Ma & Ping, 2012; Meadows & Muramatsu, 2007). Research has been done in the field looking at NNES students' perceptions of instructors as well as NES students' perceptions of instructors (Dewaele & McClosky, 2015, Rubin & Smith, 1990), specifically within a second-language-learning English classroom; many students have responded in regards to instructors' accents and how that affects their instruction. Of NES students who have been surveyed, many perceive NNESTs as lacking in proficiency, fluency, and cultural knowledge (Todd & Mousso, 2006; Pojanapunya, 2009; Mousso, 2010); however, these responses are all surrounding

instructors within ESL classrooms; there is a lack of research from Non-Native and Native students alike who are not in ESL classrooms, but instead, find themselves in a field where many of the instructors may come from diverse backgrounds, specifically, engineering.

Thus, this research aims to look at the gap regarding NES and NNES students' perceptions of both NESTs and NNESTs within the College of Engineering at the University of Illinois. In looking at students' perceptions of their instructors based on their field, I want to determine if NES students who are more often exposed to NNESTs will have a more positive or negative experience in their classroom compared with students who are exposed less/rarely exposed to NNESTs in their classroom experience. I also seek to determine if NNES students have a more positive or negative outlook towards their instructors who are also NNES. In addition, I want to determine if NES students who, over time, have had a greater exposure to NNESTs in their engineering courses have a more positive or negative outlook towards their instructor/instruction. Also, I want to determine if students, NES and NNES, have different receptions (both positive and negative) regarding NESTs compared to NNESTs; by determining if both types of students they have had different reactions, this could what solutions will effectively meet the needs of the students.

CHAPTER 2: LITERATURE REVIEW

In looking at the previous literature that has focused on this type of work, the focus of the literature has primarily been on NNES students' perceptions of native and non-native instructors within ESL/English classes. The students have most often been within the context of a language-learning classroom either in an ESL (English as a second language) context or within an EFL (English as a Foreign language) context. Thus, the following is a review of relevant literature that takes into consideration several different facets of positive and negative relationships between Native-English-Speaking and Non-Native-English-Speaking students and their instructors.

NNES Students' Perceptions of NES Instructors in an EFL Context

When looking at students within an EFL context, the students' responses towards their instructors have varied based on the country in which the research has been done. NESTs have traditionally been perceived as the most desirable type of teacher within an EFL context.

Medgyes (1994) states that native speakers' linguistic competence represents an "advantage...so substantial that it cannot be outweighed by other factors prevalent in the learning situation, whether it be motivation, aptitude, perseverance, experience, education, or anything else" (1994, p. 342). Thus, regardless of the actual effectiveness of their instruction, native English speakers are the most sought-after instructors, for they are believed to be the best. The bias that surrounds this belief is so intense that "expertise is assumed to extend to the teaching of the language. They not only have a patent on proper English, but on proper ways of teaching it as well" (p. 388).

Rao (2010) looked at Chinese students' perceptions of their Native-English-Speaking teachers in an EFL context at the University of JXNU, interviewing 20 third-year students who

were majoring in English at JXNU University. Through an open-ended questionnaire, the students discussed their "perceptions of EFL teaching offered by NES teachers, the benefits that NES teachers bring to EFL classrooms, conflicts in NES teachers' EFL teaching, and improvements that NES teachers could make in their classroom performance" (p. 59). It must be noted, however, that the majority of the teachers within this study were novice teachers (87%), which may have impacted the students' responses. Yet this is important to also observe in comparison with the study that I have done, for many of the instructors within the College of Engineering may also be novice teachers; as Teaching Assistants, they may be teaching for the first time in their own careers.

In general, the students' responses regarding their NES teachers was positive, appreciating benefits such as native language authenticity, authentic pronunciation and intonation, critical information about the usage of the language, a communicative environment, NES's instruction about cultural familiarity and cultural knowledge, as well as new methodological insights that NES instructors introduced to the students, such as advanced teaching methods, initiating classroom interaction, and the use of visual aids and pictures. The study also highlighted the negatives of having NES instructors, such as the instructors' insensitivity to students' linguistic problems, ignorance towards the students' mother tongue, conflict in teaching—the difference between the NES' teaching style and the students' learning style, unfamiliarity with local cultural and educational systems, too casual of a behavior in the classroom with the students, as well as failure to match their instruction with the school's expectations (p. 60).

Alseweed and Daif-Allah (2012) came up with similar conclusions when looking at students of Saudi Arabia within an EFL context, yet this study had a greater population of

students (169) in the Preparatory Year Program (PYP) between the ages of 18–22 at Qassim University; they responded through use of a questionnaire, interviews, and classroom visits. The questionnaire was given to students on a basis of 14 statements dealing with "listening, speaking, pronunciation, reading, vocabulary, writing, and grammar" (para. 27). The second part focused on the students' preference towards NESTs or NNESTs within the university; students were asked to choose the answer of either an NEST or an NNEST.

When looking at the results, the students responded to various elements within the study; when observing language skills, the majority of students revealed a preference for NESTs when dealing with listening, pronunciation, and speaking, with the percentage of students being 88%, 86%, and 81%, respectively. So, many studies reveal students' beliefs that NNEST cannot compare in regards to listening, speaking, and pronunciation (Moussu and Braine, 2006); NESTs far outweigh NNESTs in regards to the above stated skills. Yet, when looking at writing and grammar at the university level, students had a greater preference for NNESTs, remarking that NESTs were not as fervent about writing out everything on the board and seemed to downplay certain grammatical rules if it did not influence direct communication (para. 31). Arva and Medgyes (2000) observed that the mechanisms within language acquisition were more greatly understood by NNESTs and thus, they had a deeper knowledge of effective writing as an NNEST rather than NESTs did.

However, the pendulum swung back over to a preference for NESTs when it came to reading and vocabulary. This preference stems from the Saudi students' belief that NESTs could help them to improve their vocabulary as they provide a greater scope of synonyms and antonyms than an NNEST might be able to provide. Also, NESTs are able to provide additional cultural background information that could assist these students in their learning and

advancement in more than simply language, but a holistic understanding of the culture behind the language. This can be attributed to the number of students who want more than to simply learn a language. They want to be able to communicate with their Native-English-Speaking professors in different classes other than their language courses, thus showing a complete grasp of the language rather than just the performance of language. This was also proven through observations as Alseweed and Daif-Allah noted that NNESTs were "product-oriented in their teaching where mastery of language structure is always given more importance than language usage" (2012, para. 41). They also noted certain advantages that NESTs held within the classroom:

"They could stimulate students' curiosity to learn about the English-speaking people and their culture. Secondly, they always welcome students' questions and appreciate their input for the purposes of encouraging them to practice the language, establishing effective rapport with students and developing cross-culture awareness. Thirdly, they caused the students to be highly motivated for students were forced to use the foreign language as a means of communication. Finally, they could help students develop linguistic competence as well as linguistic self-assurance by giving them the chance to speak without being interrupted or blamed for any grammatical mistakes" (2012, para. 43).

The students were also appreciative of the relaxed manner in which many of the instructors dealt with classroom management issues within the classroom, as well as their instructors being friendly, inviting, and informative. Unfortunately, the authors also noted that many times, although the NEST instructors created a positive, natural environment, they would oftentimes make grammatical errors and/or ignore grammatical questions that they didn't seem to hold the

answer to. Within this study, with every piece of language (grammar, pronunciation, writing, etc.) involved the overwhelming majority of students (78%) still holding a higher preference for NESTs, regardless of the faults that NESTs showed, such as their lack of thorough grammatical instruction, avoiding grammatical questions they didn't hold the answers to, and making grammar errors while teaching. This is worth considering in regards to my research, for I will be able to see if engineering students also have similar positive and negative viewpoints towards NESTs and NNESTs in regards to their own instruction as it applies to engineering.

Kourieos and Evripidou (2013) also studied students' perceptions within an EFL context; however, this study focused mainly on the effective instructional practices by EFL teachers as viewed by Cypriot students, rather than looking at both positives and negatives.

The findings of this study revealed three major sections: 1) personal and interpersonal skills, 2) subject-matter knowledge, and 3) approach to language teaching. Within the interpersonal skills, the major characteristics that students shared were vital for an EFL teacher included (in order of their ranking): being friendly to their students, being eager to help students in and outside of the classroom, taking into consideration students' difficulties with Foreign Language, treating students fairly regardless of achievement, and their effort to show praise to the students (Kourieos & Evripidou, 2013, p. 4). When asked about subject-matter knowledge, the students responded that the important elements included: having a broad vocabulary in the foreign language, having a sound knowledge of grammar, using the foreign language competently, and being familiar with language learning theories (p. 5). And, lastly, when asked what was considered integral in teacher's language teaching, the most significant elements were: frequently using other materials, exposing students to real-life topics, allowing students to work in pairs and small groups, and creating activities that require students to interact in the foreign

language (p. 6). Overall, this study showed students who desire instructors who are capable, yet incredibly caring and very conscientious of the needs of the students and are able to meet those needs through real -life conversation and topics.

In relation to the previous study, students not only have viewpoints about the characteristics they find most valuable within an instructor, but they also have specific preferences in regard the instructor's accent in an EFL context. Arboledo and Garces (2012) investigated the significance of having a foreign accent within an EFL classroom context, deeming the impact that an accent has on students within the classroom. In this article, Arboledo and Garces studied the impact of having an accent, which insinuates that the speaker is not a Native-English speaker (although that, in itself, is a big assumption, since accents abound within the United States) and thus, did not learn English as their first language and maintain some type of accent that bursts forth when said person speaks. Many of the subjects interviewed who were EFL instructors with an accent (even places where the native language is English, such as Australia) were turned down for positions as an EFL instructor due to the fact that they were not Native English speakers. As one can imagine, this causes greater consternation and frustration amidst those who have a passion and a drive to teach English, yet may not necessarily have had English as their first language.

The study consisted of a very small population of participants: 16 EFL instructors (8 Colombian instructors and 8 foreign instructors) and 16 EFL students who were of various levels of language learning, various nationalities (8 Colombian and 8 foreign students) and various first languages, many of which were *not* English. The study was a 5-scale questionnaire that students were asked to complete, asking the perceptions that ESL students have towards non-native or accented ESL instructors. (2012, p. 51). The responses of the students in regards to

characteristics that they were asked were important of an EFL teacher were comparable to the Saudi students' characteristic list (Alseweed and Daif-Allah, 2012), including: easygoing, language knowledge, teaching to the needs of the students, knowledge of the students' L1 (native language), and a love for what they did. When surveyed, the students' responses varied based upon the question being asked; when asked for an overall preference of having a NEST versus a NNEST, 7 out of 8 of the foreign students preferred an NEST, whereas all 8 of the Colombian students preferred an NEST (Arboledo & Garces, 2012, p. 58). Thus, in looking at the overall preference, the overwhelming majority of students surveyed found that they preferred a Native-English-speaking teacher, yet when asked a different question, the responses shifted. The students were told to "circle the characteristics you consider important in an EFL teacher," and among the foreign students, the main responses were good pronunciation (100%), speaking with a native-like accent (although "native-like" does give the impression that having English be the native language is not necessary in this case; 25%), as well as knowing the language no matter the accent (37.5%). When surveying the eight Colombian students, the main responses included good pronunciation (100%), speaking with a native-like accent (75%), and knowing the language no matter the accent (12.5%). Therefore, although some of the percentages were somewhat low, this question gives the impression that students would prefer NESTs, yet if they don't have the option, they would at least prefer that the pronunciation of the instructor is good.

Also, when surveyed on the question "Would you prefer a native English teacher for the beginning levels of your instruction?" over 80% said yes, while the other 20% did not deem it necessarily vital for the beginning levels of classes. Overall, the students' responses to this study seem to show that they felt pronunciation was critical, and they did believe that having an NEST

greatly enhanced their learning experience. So, although meaningful, the accent of the instructor should not be the main measurement in regards to an instructor's proficiency.

Just as important as the accent, one must also consider the teaching methodology and approach an EFL instructor brings to his/her classroom. By looking at the pedagogy of instructors, one may also see how some EFL instructors can aid their own instruction within the classroom and, in some ways, "supplement" their accented teaching through quality teaching methods. Thus, the next survey takes note of the necessity of vital pedagogy by looking at the approaches of EFL teachers among Thai and Serbian students. Radić-Bojanić, Topalov and Sinwongsuwat (2015) completed a comparative study between these two sets of students to determine the teaching methods found most valuable within an EFL context. The authors noted initial differences between NESTs and NNESTs simply based on their native language; when one views a native English teacher in an EFL classroom, more confidence exudes from that instructor simply based on the fact that they can use the language more spontaneously, which translates into being more flexible and innovative, and focus more on fluency in the classroom rather than accuracy (Alseweed, 2012). Their language proficiency gives them a "superior position when it comes to providing learners with increased exposure to comprehensible input in the target language" (Radić-Bojanić, Topalov & Sinwongsuwat, 2015, p. 754). Thus, the comparison initially shows the confidence with which one uses the language.

This study was composed of over 500 students from both Prince of Songkla University in Thailand as well as University of Novi Sad in Serbia. These students were not English majors, which is a major draw, for it may provide implications to findings that may reflect the students here at the University of Illinois, as the majority of students being surveyed are also not English majors, but instead Engineering majors. The overwhelming majority of students researched

(81%) were females, which reveals limitations within the study due to the fact that women may focus on certain attributes among an EFL instructor that males may not particularly care to focus upon. The questions that were given the highest ratings on the survey showed great statistical differences between Serbian and Thai students, which could have implications towards what are considered to be valuable assets between varying cultures among EFL instructors.

However, even taking the statistical differences into consideration, the assets that students found most significant among their EFL instructors included the following:

- The teacher provides sufficient authentic examples of spoken English for real-life communication.
- I find the frequency of the class teacher speaking in English appropriate.
- I find the frequency of the class teacher speaking in Serbian/Thai appropriate.
- The teacher gives me plenty of opportunities to speak English in class.
- The teacher always creates learning opportunities in class for me, which I would miss otherwise.
- The teacher provides an appropriate, accurate assessment of my performance.
- The teacher helps me learn how to learn to communicate effectively in English.
- I like my teacher's style of teaching and giving feedback.
- I like my teacher's English pronunciation.
- My teacher understands well what he/she is teaching.
- The teacher's teaching styles are well adaptive to my needs, wants and class situations.
- The teacher knows me and provides input I can handle.

These attributes were the most highly regarded in connection with both sets of students, although the greatest differences between the two sets of students was "I find the frequency of the class teacher speaking in Serbian/Thai appropriate," where the Serbian students agreed to this statement, yet was almost double the number of Thai students who agreed to this statement. This was attributed mostly to the fact that the majority of Thai instructors were Native-English-speaking instructors and few knew how to speak Thai, which led to the other response that caused the most discord between the two groups of students, which was "I find the frequency of the class teacher speaking in English appropriate" where the Serbian students deemed the amount appropriate, yet the Thai students felt that the instructors were not speaking enough in

their native language, which we can often attribute to the students who were in the beginning levels of English proficiency, who very often depend upon explanation in their native language in order to better understand the foreign language.

The last item that yielded the most differentiation between the two groups of students was the opportunities students were given to speak English in the classroom (p. 759). The Serbian students produced a high mean, which displays their overall satisfaction with the amount of English they were given the opportunity to speak, whereas the Thai students gave a much lower rating for this question. This could also be connected with the high yield of NEST within their classrooms, which not only affected the frequency of English being used in class, but also the number of opportunities they were given to speak English. Again, because they have Native-English-Speaking instructors, Radić-Bojanić, Topalov, and Sinwongsuwat remarked that "they [the students] opt not to volunteer and not to speak out in order to save face and avoid a threatening situation and public assessment, preferring to become involved in group work rather than individual speaking and to rely on peer help rather than teacher help" (p. 759). Students preferred to save face rather than be embarrassed in front of a Native-English-speaking instructor whose language is ahead of theirs.

Overall, this study found the students' responses to the survey emphasized teacher involvement (methodology), speech and communication (versus writing and grammar) as well as the informal (versus formal) environment. In looking at these attributes within these two classrooms, one can purport that EFL teachers are valued for more than just their methodology, but also the environment they create in the classroom, the emphasis they give to their students' needs, and the number of opportunities instructors give to their students to speak English within the classroom.

NNES Students' Perceptions of NNES Instructors in an ESL Context

In conjunction with NNES students' perceptions of their Native-English-Speaking instructors in their home countries, a great deal of research has been done studying Non-Native-English-Speaking students' perceptions of Non-Native-English-Speaking instructors in an EFL context. Many assumptions have been previously made in the EFL context that NNES students prefer NESTs in their home country for they provide a relaxed environment, a wide knowledge of the language, a greater amount of real-life communication within the classroom, and authentic language spoken in the classroom (Alseweed, 2012; Kelch & Santana-Williamson, 2002; Radić-Bojanić, Topalov & Sinwongsuwat, 2015; Rao, 2010). However, research for NNES students who have NNESTs in an ESL context pales in comparison; there simply has not been as thorough coverage for NNES students' perceptions of NNESTs in an ESL context. This could be attributed to the fact that many English programs within the United States seem to have a small number of NNESTs hired within these Intensive English Programs (IEP). A study by Mahboob, Uhrig, Newman, and Hartford (2004) showed that less than 8% of IEP instructors were NNESTs, thus giving cause for such little research being conducted on this specific group. Also, many of the programs here in the U.S. reflect the hiring practices of English Institutes internationally: the hiring practices include the criterion of "native English speakers" only need apply, which is yet another setback in regards to this study group.

Of the research that is present for NNES students, or as I shall now call them, ESL students' perceptions of NNESTs, the opinion overall at the beginning of the semester seems positive (Moussu & Braine, 2006, Medgyes, 1994) where the majority of students believe they can learn just as well from an NNEST as an NEST (Moussu, 2010, Alseweed, 2012). Also, most

students disagree with the belief that NNESTs have difficulty understanding and responding to their students (Moussu, 2010; Moussu & Braine, 2006) and view having an NNEST as a positive experience that will provide better understanding of various cultures of the world. Plus, many expressed a positive view of their NNEST, showing respect and admiration for what they do. Other students expressed the viewpoint, however, that although their NNEST may know a great deal about another culture, there is no comparison regarding the degree that a NEST knows about U.S. culture as opposed to an NNEST. Also, when looking across cultures (Braine, 2006; Medgyes, 1994), students who seemed to score their NNESTs the lowest pre-semester were Korean and Chinese students, whereas Brazilian and Spanish students rated their NNESTs a great deal higher. At the conclusion of the semester, the NNEST students seemed to rate the NNESTs just as high if not higher when asked the same questions about their instructors. There are several factors that may play into this outcome of the results. This could be attributed to the students already entering the class with a positive outlook and, thus, it was easy for the instructor to maintain that positive outlook throughout the remainder of the semester. Additionally, the students may have had positive experiences with their NNESTs in their home countries and, it follows that they expected to have just as positive an experience here in the states when being instructed by an NNEST. Lastly, one may attribute the positive experience to students being instructed by someone from their home country and, thus, they might already have a positive outlook simply because their instructor originates from the same country.

Students also have remarked that NNESTs are beneficial in an ESL context because they can have more empathy towards ESL students since they have been in their shoes. They understand the struggles that come with learning a language and are intrinsically cognizant of the needs of the students, simply because they have also dealt with the same struggles as they

learned the language (Kelch & Santana-Williamson, 2002; Medgyes, 1994; Moussu, 2010). NNESTs are also seen as incredibly advantageous for they exemplify for the students that they, an NNEST, who also had the same struggles when learning the language, have now mastered the language, thus their students will have the ability to do the same thing. For other students, NNESTs are positive because they create an almost "symbiotic" relationship where the student knows that they and the instructors can be learning new ideas, new language, and new skills together. They have now become a team in some senses, for they are "fighting in the trenches" together (Kelch & Santana-Williamson, 2002, Medgyes, 1994).

NNESTs Perceptions in an EFL/ESL Context

In addition to the students' perceptions of their instructors, one is cognizant of the perceptions the instructors have within their own classrooms, both in an EFL/ESL setting, as well as in other classrooms (such as in Engineering), where the focus is not specifically on their linguistic ability, as they may not be teaching English, yet they are still held to a certain standard when it comes to communicating the specific information to their students. However, one must also take into account the personality of the instructor, the personality of the students, the context of the instructor, the education of the instructor, as well as many other factors which must be taken into consideration when looking at the instructors' perceptions of their instruction (we are all our own greatest critic).

Ates and Eslami (2012) reported on Liu's (2005) study, which focused on four graduate teaching assistants (GTAs) and their perceptions of their own instruction within the classroom, revealing findings that are none too surprising. The instructors stated that they were "unable to demonstrate linguistic advantage over NESs in the areas of vocabulary, idioms, accuracy, and fluency in speaking" (Ates & Eslami, 2012, p. 101) Thus, the GTAs lost confidence within their

own classroom and were intimidated by their own students. This feeling of fear and intimidation seems to be a continual theme found among International Teaching Assistants (ITAs), who find themselves in a classroom teaching for perhaps the first time and surrounded by a room full of NES students who most likely know more about the English language than the ITA does. One of the participants in the study implied that ITAs also have a more difficult time teaching in any context, for many of the students come with a pre-disposition towards the efficacy of the instructor and have already decided whether this instructor will give quality instruction or not. Also, due to the students' predisposition to have a difficult time understanding their instructor, this provides a greater amount of frustration, anxiety, and feelings of inadequacy within the instructor, which will, undoubtedly, amplify any difficulties they are having in the classroom. Other instructors believe that students may use their linguistic ability as an excuse for lack of preparation for class and incomprehension in regards to assessments (Ates & Eslami, 2012)

NNESTs may also run into issues of classroom management, as students may have less patience with them and therefore be willing to disrespect their instructor in the classroom. Also, NNESTs noted that their classroom management may stem from their method of instruction in regards to language. For example, as some instructors have noted that they speak more slowly in order to ensure that they are speaking correctly and clearly, their students may quickly become bored within the lecture. Also, as some instructors may have particularly thick accents while lecturing, students may consistently be asking for their instructor to repeat certain parts of the lecture, thus, wasting even more time in the classroom. Thus, the communication factor is not difficulty understanding a concept in class but, instead, difficulty understanding the actual language used in class (Gan, 2013).

However, NNESTs are also cognizant of what advantages they can bring to the table. Although they may not be as confident or relaxed as an NEST may be, NNESTs can empathize very well with their students' learning difficulties (as they have also been through them) and understand the homesickness that many of their students may be facing. NNESTs can also relate to their NNES students because they also have experienced "culture shock" and can help students to deal with the this culture shock in practical ways. NNESTs also have the benefit of being admired and respected by their NNES students, for the instructors are prime examples of ESL students who have faced similar difficulties, yet are now successful role models who have become "successful" second language users (Medgyes, 1994; Moussu, 2006).

Unfortunately, this is not something with which NES students can connect, so the advantages of an NNEST working with NES students may not be as significantly beneficial at first glance. Although the NES students may not connect with the NNEST in regards to culture shock or language learning, NNESTs are beneficial for NES students as well, for they bring with them a cultural knowledge that their NES students may not have previously had. For example, NES students can benefit not only from NNESTs in regard to cultural awareness but, additionally, students can learn how to adjust to non-native accents and fill in "syntactic gaps" (Kim, 1996). Yet, even with these advantages, one can see the various struggles that NNESTs must deal with to be able to effectively teach their students.

Overall Implications & Limitations

Overall, the rating and perception of students regarding both NESTs and NNESTs have several influencing factors: many ESL students' perceptions are influenced before they even meet their teacher, for they have general assumptions about both NNESTs, as well as specific countries. For example, students from certain countries, specifically Korean, Japanese, Thai, and

Chinese students possessed more negative viewpoints of their NNESTs, yet they also possessed more negative viewpoints towards NESTs as well, giving both groups of instructors less positive ratings. Conversely, students from other countries, for instance Portuguese, French, Spanish, Arabic, and Turkish students, gave both NNESTs and NESTs higher ratings overall. It is unknown if this acceptance of, or prejudice against NNES ESL teachers may have been influenced by a traditional view of language teachers in different countries.

Luksha and Solovova (2006) remark that NESTs and NNESTs have "certain intrinsic advantages and disadvantages" that are influenced by their personalities as well as their abilities in the classroom. Classroom subjects also seem to influence students' viewpoints towards their instructors, with a preference for NNESTs among grammar and writing classes, whereas NESTs were given preference when it came to listening and speaking classes (Cheung, 2002; Mahboob, 2003.) Although students' preferences towards specific types of teachers (NESTs or NNESTs) for specific subjects may be leaning away from that trend, many students still connect NESTs with better instruction for pronunciation and speaking, whereas NNESTs are known for their writing and grammar instruction. Additionally, any preferences for NESTs or NNESTs by students seem to shift once they have had exposure to those specific types of teachers, both positively and negatively. Moussu (2010) introduced the variable that time presents as students have more exposure to their instructor. The study revealed that, among students who had an NEST, the percentage of students who, at the beginning of the semester had answered in the affirmative to the statement, "I can learn English just as well from a NON-NATIVE English teacher as from a NATIVE English teacher" (15%) was nearly the same at 18% agreeing by the end of the semester. An even stronger increase in the affirmative to this question came from students who had an NNEST at the beginning of the semester, with 29% agreeing at the

beginning of the semester; the percentage had increased to 42% agreeing by the end of the semester (p. 760–761).

Thus, based upon the research, one can see that there is not as intense of a preference for NESTs. Students seem to be aware of the attributes and disadvantages that both groups of instructors bring to the table. Thus, one can reflect that students may be more positive towards NNESTs than they may have been in previous studies. However, although there is a great deal of research focusing on students who are learning languages in both EFL and ESL contexts, the research is quite limited in regards to the opinions and viewpoints of students who are *not* studying English. Therefore, the responses may vary when researching engineering students on their perceptions and viewpoints towards their NES and NNES instructors, for they are not looking for their instructors to teach them linguistic skills, but are focused much more greatly towards STEM (science, technology, engineering, mathematics) skills, which may have different variables when dealing with those whose native language is English and those for whom it is not.

Although there has been a great deal of time and effort spent towards the research of NNES students about both NES and NNES instructors, a significantly smaller amount of time has been devoted to Native-English-Speaking students' perceptions of instructors and, more specifically, their accents. When using the word "accent," one must be aware that a person's accent does not automatically put them into the NNEST group, for there are several countries, such as India or Nigeria, where English *is* one of the official languages. Thus, when I research students' perceptions of NNEST, one must acknowledge and continually be aware that some of the instructors who are being viewed by their students as Non-Native English speakers, are, in fact, Native English speakers. However, because of the style or the thickness of their accent, they are essentially put into the same grouping as someone whose Native language is *not* English. So,

for the sake of this study, those different groups will be put together and considered to be one group: NNES.

When looking at the research that surrounds Native-English-Speaking students' perceptions of Native vs. Non-Native-English-Speaking instructors, the research is still new and eontinually being developed. There is a smaller pool of research from which to gather information, yet from the research that has been conducted, one must consider both sides of the eoin; up to this point, we have only focused on NNES' viewpoints towards both NESTs and NNESTs, due to the fact that Native-English-Speaking students are not being taught English as a second language and, thus, are not being researched when dealing with students' perceptions towards NESTs and NNESTs. Additionally, the research is incredibly limited in regards to engineering students' perceptions of their NESTs and NNESTs. Thus, this research will continue the conversation amidst international instructors and engineering departments in regards to the needs of students (as well as instructors) and if those needs are being met both from their NESTs, as well as their NNESTs. Hopefully, we can begin to discuss the specific needs that both engineering students and instructors have in regards to the most optimal education for everyone involved.

Research Questions

There are several questions that this research hopes to answer. Due to the lack of research conducted specifically towards engineering students and their perceptions of both native and non-native instructors within engineering, the questions given to the students were fairly specific, yet the questions given during the interviews were a great deal more broad, allowing students to respond openly and honestly, and allowing the future questions to be directed based upon the focus within the students' responses.

The first major question this research hopes to answer is: 1) What are students' perceptions towards their NNESTs specifically within Engineering in comparison with their NESTs within Engineering? In other words, how effective have they found their instruction to be? Has the presence or lack of an accent influenced their perception of their instructor? Has their instructors' English proficiency had any influence on their reception of the content within the class? It can be expected that many Native-English-Speaking students tend to have a preference for Native-English-Speaking instructors (Moussu, 2006). Thus, gaining insights towards NES students' views towards their NESTs/NNESTs can help explain deeper cultural needs within the University that may not yet have been met previously.

The second major question this research hopes to answer is: 2) Are there solutions to any cultural disparities between the teacher and the student that impact the learning environment within Engineering? To elaborate, are there certain methods that can create deeper cultural understanding and awareness from both the students and instructors within Engineering that will produce a more effective learning environment? Specifically, can NES students become more receptive towards NNEST through cultural awareness programs, projects, or even cultural awareness classes/conversations?

Also, a third question that this research wants to delve into is the reception of NNESTs by NNES students. 3) Although many international students have a deep understanding of being a second language learner within an EFL context, do they give deference towards international instructors who find themselves in that very same context? Or, as Luksha and Solovova (2006) suggest, are they unwilling to give consideration towards NNESTs because they are in a Native-English-Speaking institution, and therefore, would prefer to have NESTs that are a reflection of the native language of the institution?

The final research question this research hopes to look into is the solutions to any problems that may arise between NNESTs/NESTs and NNES/NES students. 4) What are the solutions to problems that may arise due to the lack of thorough communication between instructor and student? More specific queries related to this question are: Would cultural awareness classes be a benefit for the student, the instructor, or both the student and the instructor? What can we create/produce/develop that will change the cultural tension that is often found between NESTs/NNESTs and NNES/NES students and bring about cultural understanding from both sides? All these questions help to bring understanding to the research in regards to the language difficulties that may be evident to engineering students and instructors, but perhaps have not been fully addressed through previous research. This comparison between the two groups could be valuable to help analyze the reasons for their perceptions. Overall, it is hoped that the responses to the questions this research will address will help to provide an outline of the language and culture problems as well as solutions regarding its relation to education within engineering.

CHAPTER 3: METHODS

Methodology

The methodology for this research project was based upon the following items: the type of problem being researched, the purpose of the final research, and the basis of the data. The problem being researched involves several variables, including student attitudes, instructors' self-perceptions, as well as other variables which may or may not influence the outcome of the research, such as the participating students' first language, their country of origin, their level of English proficiency, their expected grade within the class, and their level of multi-cultural experience. Other variables that might affect the results of this study may include the location of the survey, the time when the students filled out the questionnaire, the language of the researcher who administers the questionnaire, as well as the amount of experience students have had with instructors of both native and non-native backgrounds.

Thus, in order to accommodate the number of variables and attempt to create an unbiased and fair survey, many groups of people were included within this research: students of both Native and Non-Native-English-Speaking backgrounds, students of both undergraduate and graduate levels, Native-English-Speaking and Non-Native-English-Speaking engineering instructors, as well as participants who have had greater and lesser degrees of experience with Native and Non-Native-English-Speaking instructors.

Thus, the greater the number of participants, the better, for it allowed the resulting statistics to be compelling, discernable, and allowed for a more normalized distribution of results. A mixed-methods research project with both a questionnaire and focus groups were determined to be the most effective for answering the questions to the problem being investigated.

Instruments and Procedure

The first portion of this study consisted of a questionnaire-based survey (c.f. Appendix A: Questionnaire) administered to 191¹ current and former engineering students at the University of Illinois at Urbana-Champaign. Participants had the option of taking either a paper-and-pencil survey or an online-based survey. The students surveyed consisted of both domestic and international undergraduate and graduate students. The questionnaire consisted of two sections: one section inquired about the students' background information, including gender, nationality, native language, major, department of study, and year of study. The second section consisted of 35 questions focused on the effectiveness of their teachers' instruction within Engineering classes at the University. The questions inquired about both the effectiveness of Native-English-Speaking instructors they currently have or have had within Engineering at the University, as well as the effectiveness of Non-Native-English-Speaking instructors they currently have or have had within Engineering. Three questions queried the amount of travel each student has done on a personal level (the frequency of their travel outside of the United States, as well as the purpose behind the travel). The final questions gave the students a chance to remark on their past (or potential) grade received from their Native and/or Non-Native instructor, as well as their preference in general towards a Native or Non-Native instructor within their Engineering courses. Before the questionnaire was completed by the students, the researcher had given brief instructions that there were no wrong or right answers. The researcher also emphasized that the students should answer all questions based on their own personal beliefs, opinions, and ideals. The students were given ample time to complete the survey, which took each student approximately fifteen minutes to complete.

1

¹ Not all respondents chose to answer every question.

The second portion of this study emphasized a qualitative approach; data were collected via a number of personal interviews, whose aim was to go into deeper interpretations of responses made to the survey, painting a clearer picture of individuals' feelings and perspectives, provide additional anecdotal evidence, provide qualitative data, and possibly add to the quantitative findings. Seven interviews were carried out among a specific group of current and past engineering students. The interviews lasted between 30 minutes to an hour and were conducted face-to-face, via telephone, or via email. Face-to-face interviews were conducted in a private location, allowing students to share their perceptions and opinions freely; all interviews were done during a convenient time and a place compatible with their schedules.

The interviews (c.f. Appendix B: Interview) included questions related to the research questions. These questions paralleled the student questionnaire, but also gave students a chance to clarify or elaborate on the perceived quality or shortcomings of their engineering instructors, as well as gave them a chance to remark on the opinions and beliefs that engineering students hold towards instructors due to their Native or Non-Native-English-Speaking instructor status, as well as the type of instruction they give/gave within their Engineering classes and the value of the education received.

All interviews were conducted in spring 2016, with a total of seven participants interviewed. All responses and information provided by the participants were recorded or documented, and the researcher assured interviewees that there were no clear-cut answers being sought during the interviews. In addition, the interview format allowed the interviewer to probe for further clarification, giving the interviewees the opportunity to elaborate on their perceptions related to the effectiveness or value added of NEST/NNEST instructors and the impact they had on their education as a whole. Once the interviews had been completed, the researcher viewed

the qualitative data in a global sense and explored any common themes or trends throughout the responses in order to connect with the quantitative results given by the students.

CHAPTER 4: ANALYSIS OF STUDENT SURVEY

Introduction

For this project, the sample surveyed consisted of 191² engineering students at the University of Illinois at Urbana-Champaign, both graduate and undergraduate level, plus a few students who graduated within the past several years. The students also varied in their cultural backgrounds; many were native English speakers, while others were Non-Native-English-Speaking international students. Those who were both Native English speakers and not American were grouped into the Native English speaking category in regards to responses. While students' levels of experience with both NESTs and NNESTs within the College of Engineering varied, their responses contained many similarities. This chapter documents the perceptions these students—both graduate and undergraduate, male and female, domestic and international, Native and Non-Native-English-Speaking—had towards their Native and Non-Native-English-Speaking instructors in Engineering.

Student Background Information

The students who participated in the study came from various levels of their education, various levels of language proficiency, as well as various cultural backgrounds. Of the students interviewed, all had experience with instructors in their major from both Native and Non-Native-English-Speaking backgrounds. The following summarizes the participants within the study.

The final sample consisted of 191 participants, including 80 males and 81 females (30 participants did not report their gender), of which 44% were Chinese (n = 71), 21% American (= 34), 9% Korean (n = 15), 4% Indian (n = 7), 2% Middle Eastern (n = 4) 19% other (n = 30), as well as 30 participants who did not disclose their cultural background. Forty-four percent of the

31

² Although 191 students took the survey, every student did not respond to every question.

students' native languages were Mandarin (n = 71), while for 27% of the students, their native language was English (n = 44); 9% spoke Korean (n = 14), while 20% reported speaking other native languages (n = 32). In regards to education, the participants who responded were Master's students (45%, n = 72), while 38% (n = 62) were undergraduates, 10% (n = 16) Ph.D. students, and 7% (n = 11) were post-docs or had already graduated. Again, 30 participants did not choose to acknowledge their level of educational experience.

Student Survey Responses

Participants answered a number of questions in regards to their perceptions about both their Native-English-Speaking instructors as well as their Non-Native-English-Speaking instructors for engineering courses at the University. The following responses have first been separated by NES students' responses, then NNES students' responses, followed by a comparison of NES and NNES students' responses. Thus, through the various responses given by Native English speakers and Non-Native English speakers, males and females, and even specific international groups with one another, we are able to get an idea of what the perceptions are within the College of Engineering towards various types of instructors.

NES Students' Responses Regarding Native-English-Speaking Instructors

Students were asked to make an appraisal of their instructors overall and give a general rating (on a 7-point Likert scale, where Very Ineffective = 1 and Very Effective = 7) of all their instructors during their time at Illinois. Many students acknowledged that their overall ratings included some quite effective professors/instructors, while others were very ineffective. Yet, while considering the overall effectiveness of NESTs in Engineering (see Table 1), Native-English-Speaking students' attitudes and responses reflected a view of NESTs in a fairly positive light (n = 44; M = 5.6; SD = .787): no students rated NEST's instruction as Very Ineffective,

Ineffective, or Somewhat Ineffective. Students' ratings began at the midpoint with 14% (n = 6) of students rating NESTs as "Neither Effective nor Ineffective," 18% (n = 8) giving the rating of "Somewhat Effective," a majority (64%, n = 28) rating instructors as "Effective," and 5% (n = 2) rating instructors as "Very Effective." Students were given a follow-up, open-ended question, "Why did you rate your instructor that way?" to which many responded that their instructors were "engaging, clear, easy to follow." One student said instructors were "always thorough on their explanations and engaging in their presentations and clear delivery."

Although the ratings were holistically positive, a few students remarked that some instructors were effective, while others were lacking in their ability to provide quality instruction and that it "had nothing to do with speaking." Student responses varied greatly regarding the relation between the instructors' overall teaching pedagogy (ability to convey information effectively, style of instruction, etc.) in comparison to their language proficiency. For example, a small percentage (11%, n = 5) acknowledged that language efficiency does not necessarily equate with effective pedagogy, while the majority of students believed proficiency of language impacted instructors' effectiveness of instruction (88%, n = 39). There was little to no difference between the ratings of males' responses compared to those of females.

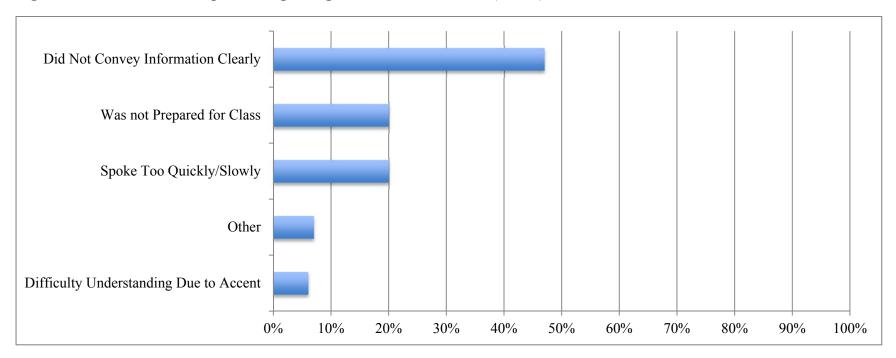
When NES participants were asked if they had any problems with their NES instructors, 61% (n = 27) of participants indicated that they had had no problems with their instructors overall, while 38% (n = 17) replied that they did have problems with their instructors. In a follow-up question, students who had responded, "Yes," were instructed to select all issues that applied to their instructor. Almost half (47%, n = 8) of respondents indicated that the main difficulty was that their instructor "did not convey the information clearly," stating that many instructors had too lofty ideas and were not able to effectively transfer those ideas into an

instructional method that the students could understand, they were not effective in their teaching pedagogy, and at times did not seem prepared for class (see Figure 4). The rest of the problems encountered with NES instructors were attributed to "speaking too quickly or slowly" (21%, n = 3), "difficulty understanding due to accent" (7%, n = 1), "was not prepared for class" (14%, n = 2), and the remaining (7% n = 1) giving other reasons for their difficulty.

Table 1: NES Students' Perceptions of NESTs' Effectiveness (n = 44)

Gender	Ineff	ery ective 1)	Ineffective (2)		Somewhat Ineffective (3)		Neither Effective nor Ineffective (4)		Somewhat Effective (5)		Effective (6)		Very Effective (7)		M	SD
	n	%	n	%	n	%	n	%	n	%	n	%	n	%		
Males	0	0	0	0	0	0	3	12	4	16	16	64	2	8	5.7	.802
Females	0	0	0	0	0	0	3	16	4	21	12	63	0	0	5.5	.772
Overall	0	0	0	0	0	0	6	14	8	18	28	64	2	5	5.6	.787

Figure 4: NES Students' Responses Regarding Problems with NESTs (n = 17)



NES Students' Responses of Non-Native Instructors

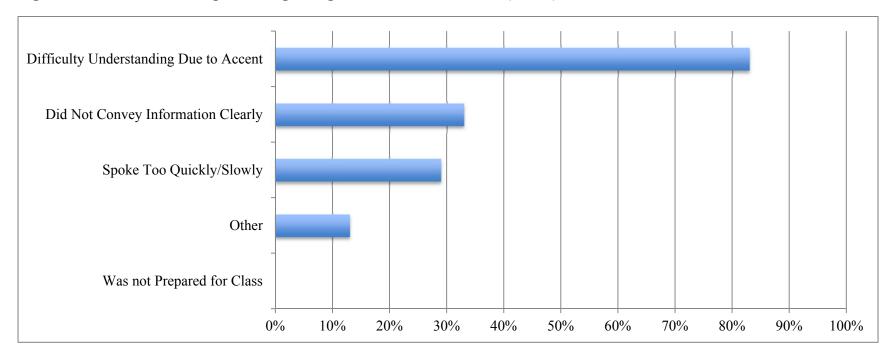
The next question was regarding the effectiveness of NNESTs in Engineering (see Table 2). Their responses were slightly different than their responses towards NESTs (n = 44; M = 4.7; SD = 1.31). A few students (5%, n = 2) rated their NNESTs' teaching as "Very Ineffective," 2% (n = 1) rated their instructors "Ineffective," 7% (n = 3) rated them "Somewhat Ineffective," while 18% (n = 8) were neutral, rating NNESTs as "Neither Effective nor Ineffective." Conversely, 34% each rated NNESTs' teaching as "Somewhat Effective" (n = 15) and/or "Effective" (n = 15). No participants ranked instructors "Very Effective." When asked to submit open-ended responses as to why they rated their NNESTs in this way, many students indicated their instructors were "very hard to understand," and provided "terrible communication." A few participants gave positive ratings, stating that their NNESTs were "very well educated in their field of study," and possessed "strong content understanding." However, although these positive remarks were provided, with every positive remark, an equally negative remark was provided: while one participant remarked that their NNESTs possessed "strong content understanding," another stated the NNESTs had "difficulty in explaining complex concepts in an understandable way."

Again, a few students maintained that their instructors' skill was not determined by their language proficiency, but instead by their teaching skillset and content knowledge. However, the percentage of participants who gave overall positive responses towards their NNESTs decreased, plus a fewer number of participants differentiated between teaching pedagogy and language proficiency as being determining factors to teaching effectiveness. In regards to male and female participants, a greater number of males (44%, n = 11) gave the rating of "Somewhat Effective" as opposed to females, who tended to lean towards "Effective (53%, n = 10), which translates that females in this instance gave a more favorable rating towards the instructors.

Table 2: NES Students' Perceptions of NNESTs' Effectiveness (n = 44)

Gender	Very Ineffective (1)		Ineffective (2)		Somewhat Ineffective (3)		Neither Effective nor Ineffective (4)		Somewhat Effective (5)		Effective (6)		Very Effective (7)		Mean	SD
	n	%	n	%	n	%	n	%	n	%	n	%	n	%		
Males	2	8	0	0	2	8	5	20	11	44	5	20	0	0	4.5	1.358
Females	0	0	1	5	1	5	3	16	4	21	10	53	0	0	5.1	1.197
Overall	2	5	1	2	3	7	8	18	15	34	15	34	0	0	4.8	1.309

Figure 5: NES Students' Responses Regarding Problems with NNESTs (n = 24)



When participants responded to the question of problems with NNESTs in the classroom, 55% (n = 24) admitted to having problems with an instructor while he/she was teaching, while 45% (n = 20) responded that they had encountered no problems with NNEST instructors in the classroom. Of those who affirmed having a problem with an instructor, in a follow-up question (see Figure 5 above), 82% (n = 18) stated their issue was "difficulty understanding due to accent," while 32% (n = 7) stated the problem was that the instructor "spoke too quickly/slowly," and 27% (n = 6) responded that their difficulty was the instructor "did not convey information clearly," 14% (n = 3) responded with "other" problems towards the instructor, namely that there were cultural differences between the instructor and the students, instructors mumbled, and the instructors thought too loftily in their concepts, leaving the students behind. Thus, the major difference between NEST and NNEST being that more students rated difficulty in understanding due to accent as a factor for having a problem with their NNEST rather than their NEST.

NNES Students' Responses Regarding Native-English-Speaking Instructors

In regards to Non-Native English speakers' ratings of NESTs' effectiveness, on a 7-point Likert scale, where Very Ineffective = 1 and Very Effective = 7, NNES students' ratings of NESTs (see Table 3 below) had a wider range of responses (n = 124, M = 5.5, SD = 1.272) throughout the scale compared to those of NES students. While NES participants didn't rate any instructors in the first three (lowest) categories, a few NNES participants put NESTs in those categories, with 3% (n = 4) rating NESTs as "Very Ineffective," 2% (n = 2) marking them as "Ineffective" and 3% (n = 4) rating their instructors as "Somewhat Ineffective." Although a small number of respondents responded in those categories, they made a great difference in the standard deviation of responses (SD = 1.272) compared to the responses NES participants reported (see Table 1 above). Also, NNES participants had a much smaller response within

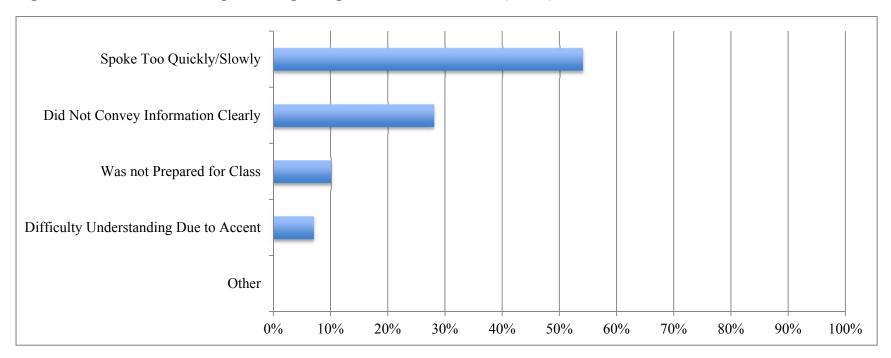
"Neither Effective nor Ineffective," where only 2% (n = 2) of the students responded in this category, whereas 14% of NES participants had placed their instructors in this category. Within the "Somewhat Effective" category, 19% (n = 23) responded, whereas 61% (n = 76) responded that their instructors were "Effective," and 9% (n = 11) gave the rating of "Very Effective." The NNES and NES participants' ratings for the final three categories of NEST effectiveness were nearly parallel, yet there was a greater spread of NNES students who leaned towards "Very Effective," with a small percentage of the responses leaning towards the first three "Ineffective" categories. Females gave a closer rating between "Somewhat Effective" (27%, n = 16) and "Effective" (48%, n = 30), while a greater number of males (71%, n = 38) gave the rating of "Effective" rather than "Somewhat Effective" (11%, n = 6). The rating of "Very Effective" had a higher response among females (13%, n = 8) as opposed to males (6%, n = 3).

Regarding the question of NNES participants who had problems with their NESTs, 66% (n = 85) of this population marked "No." But for the 31% (n = 39) of NNES participants who marked "Yes," their main problem was related to the speed of speech: 54% (n = 21) indicated that the instructors "Spoke too quickly/slowly" (see Figure 6 above). In addition, 28% (n = 11) reported that the instructors "Did not convey information clearly," 10% (n = 4) reported that their instructors were not prepared for class and 8% (n = 3) struggled with an instructor's accent.

Table 3: NNES Students' Perceptions of NESTs' Effectiveness (n = 124)

Gender	Ineff	Very Ineffective (2)		Ineff	Somewhat Ineffective (3) Neither Effective nor Ineffective (4)		ive nor ective	Somewhat Effective (5)		Effective (6)		Very Effective (7)		Mean	SD	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%		
Males	2	4	0	0	2	4	2	4	6	12	37	71	3	6	5.1	1.269
Females	2	3	2	3	2	3	1	2	16	27	29	48	8	13	4.9	1.436
Overall	4	3	2	2	4	3	3	2	22	19	74	61	11	9	5.0	1.365

Figure 6. NNES Students' Responses Regarding Problems with NESTs (n = 39)



NNES Students' Responses Regarding Non-Native-English-Speaking Instructors

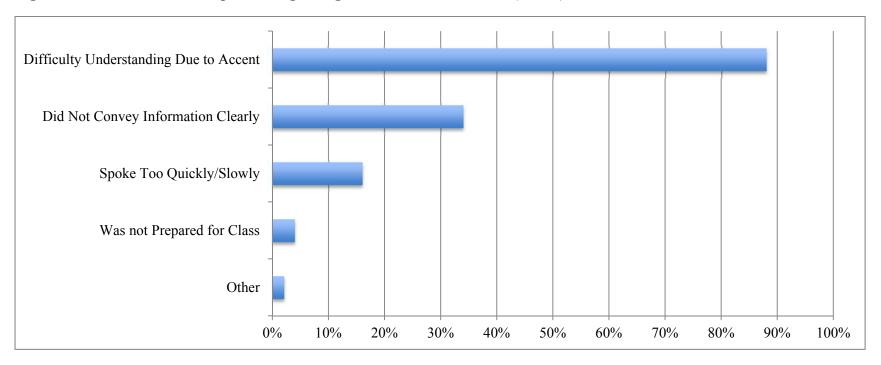
NNES participants also rated the effectiveness of NNESTs within the College of Engineering. Again, the NNES students' ratings of the NNESTs had a greater standard deviation (n = 117; M = 5; SD = 1.365) than the previous responses, similar to the rating of NESTs by NNES participants. The rating of NNESTs was more widely spread in comparison with the rating of NESTs, which, although a greater standard deviation, was still focused primarily on the last three categories of "Somewhat Effective" to "Very Effective," whereas, in Table 4, one can see that participants rated more NNESTs as "Somewhat Ineffective" (13%, n = 15) and "Neither Effective nor Ineffective" (9%, n = 10). Also, participants gave a higher "Somewhat Effective" rating towards NNESTs, with 30% (n = 35) rating NNESTs in this category, while only 36% (n = 42) rated instructors as "Effective," significantly lower compared to the 61% (n = 76) rating NNES participants gave NESTs. The rating of "Very Effective" stayed nearly the same at 8% (n = 11) in comparison with NESTs. Ratings between males and females were much closer to one another for "Somewhat Effective" and "Effective," yet "Somewhat Ineffective" had a bit of a deviation between genders; 18% (n = 11) of females gave this rating as opposed to only 6% (n = 3) of males, while 13% (n = 7) of males rated their instructor as "Neither Effective nor Ineffective," and only 3% (n = 2) of females gave this rating.

NNES participants who experienced difficulties with their NNESTs were nearly split in half: 52% (n = 60) of participants experienced no problems with their instructors, whereas 48% (n = 56) indicated having problems. Of those who experienced problems, the overwhelming majority (88%, n = 49) had difficulty with NNEST's accents; 16% (n = 9) believed their instructor spoke too quickly/slowly, and, because they could mark more than one category within this question, 34% (n = 19) also believed their instructor did not convey the information clearly enough; only 4% (n = 2) marked that their instructor was ill-prepared for class (see Figure 7).

Table 4: NNES Students' Perceptions of NNESTs' Effectiveness (n = 117)

Gender	Very Ineffective (1) Ineffective (2)			Somewhat Ineffective (3)		Neither Effective nor Ineffective (4)		Somewhat Effective (5)		Effective (6)		Very Effective (7)		Mean	SD	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%		
Males	1	2	2	4	3	6	7	13	14	27	23	44	2	4	5.1	1.269
Females	1	2	2	3	9	16	2	3	20	34	18	31	6	10	.9	1.436
Overall	2	2	4	4	13	11	10	9	34	30	42	37	9	8	5	1.365

Figure 7. NNES Students' Responses Regarding Problems with NNESTs (n = 56)



NNES participants who experienced difficulties with their NNESTs were nearly split in half: 52% (n = 60) of the participants experienced no problems with their instructors, whereas 48% (n = 56) remarked having problems. Of those students who experienced problems with their instructors, the overwhelming majority (88%, n = 49) of participants had difficulty with NNEST's accents (16% (n = 9) believed their instructor spoke too quickly/slowly, and, because they were able to mark more than one category within this question, 34% (n = 19) also believed that their instructor did not convey the information clearly enough; only 4% (n = 2) marked that their instructor was ill-prepared for class (see Figure 7).

Comparison of NES and NNES Students' Perceptions

Throughout the previous results, NES and NNES participants have shown variations in a few of their responses towards their instructors, but other factors to consider that determine their responses towards their instructor(s) may also include how well traveled students are, the students' year of education at the University (which would most likely have fostered increased exposure to other cultures and languages via interactions with other students, their engineering classes, and various academic experiences), plus extended exposure students may have had to other cultures (study-abroad programs, trips to different countries, moving to different countries with their families, etc.). These factors play into my theory that students who have traveled more have had more exposure to other cultures, and those further along in their studies have theoretically have been exposed to a greater number of internationals and NNESs, and thus might be more accepting of NNESTs as instructors. But to prove or disprove this theory, NES and NNES students must be compared to determine if they fit into these various categories.

Students' Frequency of Travel

The first factor—frequency of travel (see Table 5 below)—reveals that although NES students travel outside of the U.S., NNES students tend to travel more. In response to the "Never" category on a 5-point Likert Scale, the percentage of NES participants was double that of NNES participants (16%, n = 7 vs. 8%, n = 9, respectively). The percentage for NNES participants (24%, n = 28) for the "A Moderate Amount" category was double that of NES participants (11%, n = 5). Both NES (18%, n = 8) and NNES (17%, n = 20) were nearly equal for the "A Great Deal" response, whereas, for the "Rarely" category, NES (27%, n = 12) again nearly doubled the response of NNES (15%, n = 18). NNES also had a higher percentage of participants respond to "Occasionally" with 36% (n = 43), in comparison to NES's 27% (n = 12).

Students' Level of Education

Another factor that may need to be taken into consideration is the level of experience that students have had with NNESTs. One can assume graduate students have potentially traveled more and overall had more life experiences than undergrads, and could potentially have had more exposure to NNESTs than undergrads based on their age and number of years. In this research, there is a significantly lower number of NES undergraduate students (30%, n = 13), whereas the majority of NES participants are graduate students (55%, $n = 25^3$). In the case of NNES students, the numbers are slightly more even: 42% (n = 49) of the participants are NNES undergraduates, whereas 59% (n = 64) of the respondents are graduates (see Table 6 below)⁴.

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³ The remainder of NES participants had graduated (14%, n = 6) or were post docs (2%, n = 1).

⁴ The remainder of the NNES participants had graduated (3%, n = 4)

Table 5: NES vs. NNES Students' Frequency of Travel Outside of the United States

	Gender	Never		Rai	Rarely		Occasionally		A Moderate Amount		at Deal	Mean	SD
	-	n	%	n	%	n	%	n	%	n	%		
Native English Speakers	Male	3	12	8	32	7	28	1	4	6	24	2.8	1.091
	Female	6	21	6	21	8	29	5	18	3	11	2.8	1.389
	Total	9	17	14	26	16	30	6	11	9	17	2.8	1.234
Non Native English Speakers	Male	4	7	8	15	18	33	17	31	8	15	3.5	1.274
	Female	5	8	9	15	25	40	11	18	12	19	3.2	1.155
	Total	9	8	18	15	44	37	20	17	28	24	3.3	1.209

Table 6: NES vs. NNES Students' Year in School

	Gender -	Unde	rgrad	Mas	ter's	Pł	ıD	Post	-Doc	Grad	luated	Maan	SD
	Gender	n	%	n	%	n	%	n	%	n	%	Mean	
Native English Speakers	Male	7	28	12	48	2	8	0	0	4	16	4.8	1.930
	Female	15	52	6	21	4	14	1	4	2	7	4	2.071
	Total	23	41	18	33	6	11	1	2	6	11	4.4	2.059
Non Native English Speakers	Male	23	40	22	40	8	15	0	0	2	4	4	1.806
	Female	27	41	32	50	2	3	0	0	2	3	3.8	1.874
	Total	50	42	54	46	10	8	0	0	4	3	3.9	1.842

Students Who Have/Have Not Lived Outside of Their Home Country

A final factor that should be considered within this study is the percentage of students who have/have not lived outside of their home country. Obviously, participants who are Non-Native-English speakers who are attending the University of Illinois *have* lived in a country outside their home country, because they moved to the U.S. in order to attend school. But upon discussing with some participants why they chose "No" as their answer, their response was that they had not lived outside of their home country previous to attending school. Many did not consider school as choosing to live in another country, such as some may consider a move for family or job opportunities, but instead choosing to attend school in another country as simply attending school that happens to be in another country. Thus, keeping all that in consideration, the percentage of NES participants compared with NNES participants are quite opposite of each other. The number of NES participants who have lived outside of their home country stands at 33% (n = 18), while the number of NES participants who have *not* lived outside their home country is 67% (n = 36; see Table 7 below). Transversely, the percentage of NNES participants who have lived outside of their home country is 69% (n = 82), while the NNES participants who have not lived outside of their home country stands at 31% (n = 37).

Table 7: NES vs. NNES Students Who Have Lived in a Country Not Their Home Country

	Candan	Y	es	N	lo
	Gender	n	%	n	%
Native English Speakers	Male	9	36	16	64
	Female	9	32	19	68
	Total	18	33	36	67
Non Native English Speakers	Male	36	67	18	33
	Female	45	71	18	28
	Total	82	69	37	31

The participants were asked the question: "In your major, would you prefer to be taught by an NES or an NNES?" Due to previous studies discussed in the literature, certain assumptions

were made about what the answer to this question would be; yet, the actual response of the participants was somewhat surprising. In response to the participants' preference of an NEST or an NNEST within the College of Engineering giving instruction within major classes, NES students had a preference for NESTs at a rate of 88% (n = 46), while their preference for NNESTs was only at 12% (n = 6, see Table 8).

Table 8: NES vs. NNES Preferences to Be Taught by NESTs or NNESTs

	Candar -	NE	EST	NNEST		
	Gender -	n	%	n	%	
	Male	23	92	2	8	
Native English Speakers	Female	22	85	4	15	
	Total	46	88	6	12	
	Male	45	85	8	15	
Non Native English Speakers	Female	48	84	9	16	
	Total	95	85	17	15	

In the same regard, NNES students gave nearly the same preference for NESTs. Quite a large number of NNES participants (85%, n = 95) listed a preference for NESTs, while a mere 15% (n = 17) expressed a preference for NNESTs. This response reveals that regardless of the students' native language, there is a tendency to prefer a Native English speaker when it comes to engineering instruction within the classroom. Many of the students gave open-ended responses as to the reason behind this preference, stating NESTs were "easier to understand," and possessed "better communication skills." When Non-Native-English-Speaking participants were asked the same question, their responses were nearly identical; a large portion of the students' responses included that NESTs were simply "easier to understand," and "speak fluently" with no problems. Other NNES stated that was the reason they chose to come to the United States as opposed to going to a university in their home country—"It's an English-speaking country...that's why I came to Illinois," one participant stated.

CHAPTER 5: ANALYSIS OF STUDENT INTERVIEWS

Introduction

For the current project, I interviewed a total of seven participants who still attend the College of Engineering at the University of Illinois at Urbana-Champaign, or have recently graduated from Illinois within the past few years. Of the participants interviewed, each one brought a unique viewpoint to the table, yet there were many similarities within their responses. This chapter records the ideas that these participants shared with me about their unique educational career in the College of Engineering at the University of Illinois.

Student Interview Background Information

The participants who were interviewed came from a variety of different backgrounds and engineering majors at Illinois, thus, providing various experiences and input in regards to their responses. The participants are a combination of students who still attend the university (both seniors), while the remainder of the group has graduated; some graduated five years ago, others graduated in the past six months. It was valuable to interview students who have already graduated, for they are able to give a more holistic view of the program than a student who still has not completed all of their major courses. The group was comprised of various majors and levels of education; two of the participants had graduated from Computer Engineering; two of the participants are currently in Civil Engineering; and the remaining two both received their doctorates from the University: one in Aerospace Engineering, the other Engineering Mechanics. Thus, the group has three "levels" of experience: two who still attend the university, two who have graduated with Bachelor's Degrees, and two who completed their doctorates in the engineering program. In regards to background, three of the participants are male, and three are female. Of those who are male, they are all American, two being Caucasian American, the third

African American. The female participants are Nigerian, Trinidadian-Tobagonian, and Hispanic American. Two grew up bilingual, one an NES, and another whose native language is Mandarin. I have numbered Interviewees as Interviewee 1-7. The following is a brief description of each Interviewee:

- Interviewee 1 is a male African American graduate who received a Bachelor's in Computer Engineering. His native language is English.
- Interviewee 2 is a female Trinidadian-Tobagonian graduate who received her PhD in Aerospace Engineering. Her native language is English.
- Interviewee 3 is a female Hispanic student who is studying Civil Engineering. Her native languages are Spanish and English.
- Interviewee 4 is a female Nigerian student who is studying Civil Engineering. Her native language is English.
- Interviewee 5 is a male Anglo American graduate who received his PhD in Theoretical and Applied Mechanics. His native language is English.
- Interviewee 6 is a male Anglo American graduate who received his Bachelor's in Computer Engineering. His native language is English.
- Interviewee 7 is a female Chinese graduate who received her Bachelor's in Civil Engineering. Her native language is Chinese.

Interviews

The purpose of the interviews was to delve more deeply into the research questions and allow students to candidly answer the questions that they may not have felt the freedom to discuss at an end-of-the-year evaluation of instructors. Many students felt as though this was a difficult topic to discuss, for in some ways, it opens up a cultural divide that many students may not have felt was "politically correct" to bring up at the end-of-the-year evaluation (i.e., ICES forms, which students are asked to use to evaluate their instructors at the end of the semester). For these students to bring up the language barrier or accent as a problem, they may have felt

that they were not being open-minded or accepting of other cultures by complaining about accents, and thus, left such a sensitive issue off the evaluation form overall. Yet, within these interviews, the participants were encouraged to be as open and honest as they could be, for this kind of candid discussion is one that brings about change in attitudes and open discussions that may be very much integral in order for students and teachers to have the most efficacious learning experience possible.

Effectiveness of Instructors

One major research question deals with the effectiveness of instructors, both NEST and NNEST, and if the lack of or presence of an accent has influenced the students' reception of the content of the class. The response to this question by the interviewees was divided; all participants acknowledged that instructors with heavy accents influenced their learning experience; yet, the way in which it influenced their experience was completely divided. Half the participants acknowledged that the presence of an accent influenced their reception of the content and hindered their learning, while the other half reasoned that the presence of an NNEST made them pay attention more than they originally would have, thus helping them to learn more.

The participants who acknowledged that accent influenced their reception of the content remarked that it had more to do with the surrounding environment of the class in conjunction with the accent rather than just the accent. One participant stated that the combination of an instructor with an accent, who tends to mumble (due to lack of confidence with language), who also has a classroom full of 100 students who are not being quiet—negatively impacted their learning experience, for they were unable to comprehend several of the lectures due to these factors. Another participant agreed that there is a large difference between when an NNEST is in front of a large lecture hall in comparison with one-on-one contact with a student:

"In front of a crowd, two factors are detrimental—(1) some NNESTs get nervous and hence are even harder to understand than usual, and (2) it is awkward/impossible to interrupt them and ask them to repeat themselves in a large-group setting. Neither of these factors are in play when speaking to them one-on-one." – Interviewee #5

While these factors were at play among some of the participants, others responded that the accent may have actually been beneficial, for the heavy accent made it more difficult to understand and, thus, participants were not able to "zone out" as easily as they might have been able to do with an NEST. This in and of itself may be quiet beneficial, for if students are able to just "zone out" with NESTs, perhaps it is more effective for them to have an instructor that requires more concentration and thinking. The participants felt that they were almost required to give more attention to the lecture and the class in order to understand the content within the class. One participant, remarked:

"We spent hours after class going through the textbook. It was a group effort, because nobody understood what was going on. We had one guy who you could barely understand what he was saying; all his Rs were just rolled into one and eventually they let him go...they didn't renew his contract. For that class, we would just write whatever he had on the blackboard and figure out as a group afterwards what he was teaching." – Interviewee #2

This participant went on to say that although this may have proven more difficult in regards to understanding the lecturer, she found that she worked much harder in this class in order to grasp the content. Although it may have been based out of confusion and fear of failing the course, she still proceeded to adapt to the surroundings and work with her classmates to learn the materials just as well, if not better than she may have done so if she had understood the instructor's language with no problems.

Another participant agreed, stating that the type of class was also a factor in regards to understanding a professor more thoroughly. When classes focused on equations and numbers rather than written language, some participants seemed to be able to gain the knowledge a bit

more thoroughly, revealing, "Numbers are universal. Conversely, for a course like, say, physics, words become more crucial in understanding complicated phenomena." The participant continued, giving an example of two distinct professors that provided completely different educational experiences:

"I had a Chinese professor whose English I could simply not decipher, yet I still got something from the course since only equations and numbers were drawn on the board. On the other hand, I had an advanced dynamics (more physics) professor from Russia whose English was equally unintelligible. I got zero from that course. Nothing. I want my money back." – Interviewee #5

Thus, according to the participants, the overall success of the course is also influenced by the content that is being studied within the course.

Programs for Cultural Sensitivity

When the participants were asked if there should be some type of program or training for students and/or instructors, which deals specifically with my second research question, the majority of students answered in the affirmative, yet with specific conditions. Students remarked that they could see a class specifically for instructors who may have thicker accents than others be very beneficial. One participant stated:

"How do you gauge proficiency? Most times you need to know the material. There's this competition... you have to make a compromise....because if all the people have a strange accent, then who do you hire.... But these people are very competent, very knowledgeable. What I would suggest is to have some sort of program for new professors where they get to practice...same as where grad students have to take English classes.... take something where professors can practice communicating effectively."—Interviewee #2

These types of classes may look like a pronunciation course, such as ESL 110 or 510, but interviewees recommended a short course that is specifically for instructors. Participants remarked that if instructors were required to take a course that focused on the way they present (lecture) and explain content, this would be beneficial for the instructor, who might have less

stress and worry over their language, as well as students, for whom any improvement in their instructors' presentation skills could also be beneficial to students.

In addition, many students communicated their frustrations over NNESTs' inability to actually *teach* the information to the students. One participant even disclosed, "If they were not prepared to teach the discussion (unfortunately common), the whole class was confused. The TA could not predict points of confusion for the students because they did not prepare well enough" (Interviewee #6), while another participant confessed, "Class was mostly not easy to follow. The instructor assumed too much about the background and prior knowledge of students" (Interviewee #1). Thus, interview participants agreed that a pronunciation course was not the entirety of the problem; along with a course that works towards pronunciation for instructors, participants suggested the course would also need to teach basic pedagogical skills and teaching methods that could improve the overall transfer of information from instructor to student.

Additionally, when asked about providing a cultural sensitivity course for students in order to help students better understand their instructors, although the participants thought this was a nice idea in theory, they did not think this would have much of an impact on the receptivity of the students in regards to their instructors' native language and/or accent. Many participants thought that a cultural sensitivity course would not be enough to help students suddenly understand an accent with which they previously had difficulty. One participant noted:

"Every student is different and has difficulty understanding certain accents more than others, just like every teacher is different and may have a slightly different accent depending on what place in India they originate from, or what province in China. A class can't teach you the nuances of every single accent." –Interviewee #7

Although participants felt that a cultural awareness course might be slightly beneficial, overall, they questioned the effectiveness this would have in regards to the language/accent difficulties that students have: "Students won't immediately understand an Indian accent by having a class

on cultural awareness...the way they start to understand a person is just by spending time with that person," one participant remarked (Interviewee #4). Thus, although a cultural awareness class may remove biases from one cultural group to another, it would not solve the problem of language misunderstanding found between instructor and student.

As suggested by Interviewee #4 above as well as other interview participants, their solution, instead of cultural training, would simply be: time. As students attend class, befriend people from other countries, and learn to listen to various accents and decipher language in that way, their comprehension skills regarding NNEST's language will significantly improve.

However, within the interviews, more than one participant admitted that if the solution to understanding NNESTs better were spending more time with that instructor in class, then there might be a problem, for he admitted that he would often skip class if he had any difficulty understanding the instructor: "I relied on the books and documents they would give us a lot, which are really good; that's the nice caveat. The whole teaching, listening, lecture—most people don't really get into that much" (Interviewee #1).

Another participant shared similar methods when it came to difficulty understanding the instructor's language and instruction:

"Books, books, books. It was just the stuff the classes provided...online stuff and textbook stuff that totally covers it. I think a lot of people need classes, but I didn't. I skipped, especially the civic stuff...I skipped classes more that have great online information." – Interviewee 6

This also leads into my third research question that asks if NNES students are more receptive or have a greater understanding towards NNESTs because they have both dealt with similar situations in regards to learning a new language, new accent, and new culture. Based on the responses by the participants in the interview as well as the survey, this rings true 50% of the time. Several NNES students responded that, although they themselves are non-native speakers

with accents, they still had difficulty with instructors who were also non-native speakers with accents. Namely, they struggled with cross-cultural accents. One Asian participant disclosed, "Some Indian accents are hard to understand" (Interviewee #7), while another NNES participant stated,

"The instructor messed up her English, and it make it difficult to understand the concept and calculations. Pretty much it makes everything becomes more complicated, since we don't only have to understand the subject, we literally have to decipher what she's trying to say."—Interviewee #4

Thus, regardless of the fact that both the students and the instructors are NNES, there is still a language/accent barrier between various cultures within the NNES divide.

This brings us to the final interview question asked of participants, which asks for solutions to the problem of language barriers/difficulties between NNES/NES instructors and NNES/NES students. When I brought up the idea of cultural awareness classes, again, the interviewees were skeptical about the efficacy of such a program, and if it would be beneficial to students and/or instructors. A female bilingual participant responded, "I personally am always skeptical of taking mandated classes like 'cultural awareness' or [classes] on diversity and stuff because it seems awkward to try and make someone learn something that probably needs to be learned through experience..." (Interviewee #3)

Other solutions offered to alleviate the language barrier/difficulties by participants included more communication from the instructor to the students:

"Express at the beginning of a course that if anyone is having trouble they should feel free to let to the instructor know that they are having trouble...because I think sometimes students feel uncomfortable talking about their problems to instructors."—Interviewee 3

Therefore, feasible options might include students having more one-on-one conversations with their instructors about difficulties they are having in class in regards to language barriers/accents.

Another easily implemented suggestion made by an interviewee involved pairing NNEST professors with NEST TAs, and vice versa. In this way, students who are having difficulty with an NNEST's accent would have recourse, and could meet with a NEST TA to get clarification regarding concepts about which they were having difficulty understanding.

CHAPTER 6: DISCUSSION

Findings

Research Question 1: What are students' perceptions towards their NNESTs specifically within engineering in comparison with their NESTs within engineering?

In looking at the results, there are several salient findings that should be noted. Although there are several students who remarked on various issues they had with their instructor, the complaints directed towards the instructors had little to nothing to do with their language proficiency. The students had more problems with the instructors' teaching style and methodology, complaining that instructors were not prepared for class and did not convey the information clearly to the students, with only a few complaining about the instructors' speed of speech (too slow/quick) and one stating that there was difficulty in comprehension due to the instructors' accent.

As a whole, as can be seen by Table 9 below, both NES and NNES students seemed satisfied with NEST instructors, believing them to be effective teachers, which is consistent with previous findings (Medgyes,1994). NES students were satisfied with the instruction of their NES instructors, with the majority stating that their teaching was effective, somewhat effective, or very effective; no instructors received a rating of "ineffective" or less. NES students found their instructors engaging, passionate, and effective teachers, who were easy to understand and thorough in their explanations. Of those who did not find their instructors as such, the complaints had more to do with teaching competency and preparedness for the instruction, rather than any issue of the instructors' language barrier/accent within class. Of students who did have issues with their instructors, they solved the problem generally through asking questions in class or attending office hours in order to get a more thorough understanding and answer to whatever question they may have had. The pattern throughout these findings was consistent with previous

research that showed NES students' general satisfaction with NESTs, yet obviously due to the limited research in regards to engineering instructors, these results are merely a reflection of what had already been proven within ESL class research.

The findings in regards the second half of this research question were a bit more interesting (Table 9). NES students remarked upon their perceptions of NNESTs within the engineering department, and the results were a bit distinctive in comparison; overall, the satisfaction of NNESTs among the NES students was not as high as the NEST rating. While there were no students who found the instruction of NESTs to be ineffective, these ratings emerged among NNESTs: over a third of the NES found NNESTs' instruction to be ineffective or neither ineffective or effective. Another third of the students rated the instruction as somewhat effective, while the final third gave the rating of effective. The patterns show throughout this rating that the students were divided into thirds their general satisfaction with their NNEST engineering instructor with a third being dissatisfied, a third being neither satisfied or dissatisfied, and a third being satisfied. These results reflect the research that was conducted among ESL classrooms (Moussu, 2006) and NES students' lower satisfaction rating towards their NNESTs in the classroom. These results correlate overall with the general lower satisfaction ratings given by NES students towards their NNEST instructors. What was surprising within these results was the responses given by the students in regards to their dissatisfaction. Many of the students remarked upon the instructors' accent and how difficult it made the class. While I had expected a few of these findings, my assumption had been that students who were attending university in 2015 would be much more open and accepting of all cultures as compared to students 15-20 years ago. I assumed students would be accepting of all accents and cultural diversity, deeming it perhaps as a slight problem, but not one that inhibited

or negatively impacted their learning and/or caused a reaction. However, this was not the case. The majority (82%) of NNES students stated having problems with their NNESTs due to difficulty understanding their accent and preferred to have an NEST because of their pronunciation and speaking skills, as was reflected in the literature review with Moussu and Braine's research results (2006). Although I had expected some students to respond in this way, I had not expected such a great response of students to cite difficulty with accent as a barrier in the classroom. This is significant in that it very clearly determines NES students' viewpoints towards their instructors' accent, with very few stating their struggle with their professor being other issues, such as how the instructor conveys information (although there were a small percentage who stated this as an overall problem).

NNES students ratings of their NESTs and NNESTs was a bit more surprising to me, as my expectation had been that they would rate their NNESTs higher due to the connection that students may feel with their instructor, who has also had to move to a new country, practice their L2 language, and have more difficulties due to language barriers and accents, reflected in the study by Kelch & Santana-Williamson, 2002. In a word, I presumed empathy. Yet, regardless of students' cultural affiliations, NNES students rated their NESTs and NNESTs somewhat similarly to NES students, with 61% of the population of NNES students rating their NESTs as effective, in comparison with 64% of the population of NES students rating their NESTs as effective. NNES students also gave NNESTs similar ratings of effectiveness as NES students with NNES students giving an effectiveness rating of 37%, while NES students gave their effectiveness rating as 34%. Thus, NNES students gave only a slightly higher rating towards NNESTs than their NES counterparts, many stating that the accent made their comprehension of

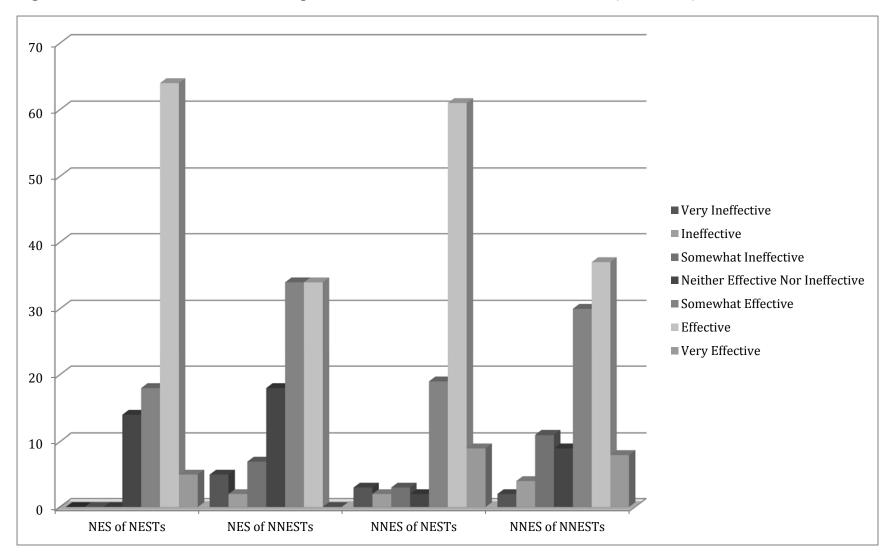
their NNESTs difficult at times, which is consistent with the findings by Arboledo and Garces (2012) regarding NNES students' preference for NESTs due to lack of a language barrier/accent.

While there are disparities between the two groups (NESs and NNESs), it's important to note that there were no NES students who made any overt remarks against NNESTs; no student said that NNESTs should not be teaching their courses, or that NNESTs do not belong within an English speaking university as an instructor, which is consistent with Moussu's (2010) study that many students believe they can learn as easily from an NNEST as they can an NEST. Although NES students clearly had a preference for NESTs as their instructors, no NES student surveyed remarked on the need for *only* NESTs to be instructing them within engineering. It is interesting to note that in comparison, there were a few NNEST students who responded when asked "Why would you prefer a Native English Speaking Instructor?" that "That's why I came to UIUC," "It's an English Speaking Country," and "It's the reason why I came here." Therefore, some of the NNES students seem to expect that since they are in a native English speaking country, that they should be receiving instructors who speak the native language. This, however, did not seem to be the expectation among NES students.

Table 9: NES and NNES Students' Perceptions of NESTs' and NNESTs' Effectiveness (n = 168)

	Ineff	Very Ineffective (1)		ective 2)	Somewhat Ineffective (3)		Neither Effective nor Ineffective (4)		Somewhat Effective (5)		Effective (6)		Very Effective (7)		M	SD
	n	%	n	%	n	%	n	%	n	%	n	%	n	%		
NES Males of NESTs	0	0	0	0	0	0	3	12	4	16	16	64	2	8	5.7	.802
NES Females of NESTs	0	0	0	0	0	0	3	16	4	21	12	63	0	0	5.5	.772
NES Overall of NESTs	0	0	0	0	0	0	6	14	8	18	28	64	2	5	5.6	.787
NES Males of NNESTs	2	8	0	0	2	8	5	20	11	44	5	20	0	0	4.5	1.358
NES Females of NNESTs	0	0	1	5	1	5	3	16	4	21	10	53	0	0	5.1	1.197
NES Overall of NNESTs	2	5	1	2	3	7	8	18	15	34	15	34	0	0	4.8	1.309
NNES Males of NESTs	2	4	0	0	2	4	2	4	6	12	37	71	3	6	5.1	1.269
NNES Females of NESTs	2	3	2	3	2	3	1	2	16	27	29	48	8	13	4.9	1.436
NNES Overall of NESTs	4	3	2	2	4	3	3	2	22	19	74	61	11	9	5.0	1.365
NNES Males of NNESTs	1	2	2	4	3	6	7	13	14	27	23	44	2	4	5.1	1.269
NNES Females of NNESTs	1	2	2	3	9	16	2	3	20	34	18	31	6	10	.9	1.436
Overall NNES of NNESTs	2	2	4	4	13	11	10	9	34	30	42	37	9	8	5	1.365

Figure 8. NES and NNES Students' Perceptions of NESTs' and NNESTs' Effectiveness (%, n = 168)



Research Question 2: Are there solutions to any cultural disparities between the teacher and the student that impact the learning environment within engineering?

The findings of this question were a bit more open-ended as several of the students seemed to shy away from solutions such as cultural awareness classes, believing them to be ineffective or forced, thus causing a greater disparity between cultures when they are "encouraged" to connect with one another. Thus, the findings of this question are lackluster, for many students acknowledged that there are cultural disparities between teachers and students who represent various cultural backgrounds, yet any intentional attempts to connect the two would seem fake and disingenuous. Thus, for many of the students, the solution to cultural disparities cannot come from within the classroom via cultural awareness classes or programs, but instead, must be fostered over time through various more organic methods, such as roommates being put together who represent two contradistinctive cultural backgrounds. This is one way that cultural understanding can take place as students must find a way to live and communicate within the same space, making connections with one another simply by existing near one another. Obviously, they acknowledged that even methods such as this can be outright avoided by some, yet others may lean towards such a simple solution to alleviate cultural misunderstanding/division. Also, participants gave other suggestions to the cultural disparity problem by using the professors as ambassadors to create a space for deeper cultural awareness. Students get to know each other through taking classes together, being lab partners together, working on projects together, and if students are intentionally placed within cultural diverse groups by their instructors, this will provide another venue for students to make cultural connections that had previously been naught. The final suggestion to this question of cultural disparity solutions was simply allowing time: time for students to get to know students from various cultures, time for students to gain exposure to other cultures and time to have a deeper

understanding of language/culture/tendencies. While these suggestions may not be ground-breaking to the general population, the students felt that these solutions may actually create a culture of acceptance, understanding, and cooperation, rather than forced friendship. This question may not seem as significant in comparison with the other research questions I have proposed, yet this question is the catalyst towards eliminating the language barrier not only from student to student, but student to instructor as well. The more exposure students have with a specific culture *outside* of the classroom, the greater understanding students will have once they come into contact with that specific culture *inside* the classroom.

Research Question 3: Although many international students have a deep understanding of being a second language learner within an EFL context, do they give deference towards international instructors who find themselves in that very same context?

Entering into this research, my assumption was that international students, specifically NNES students, would have a great level of compassion and understanding towards NNESTs who may struggle through language at one point in time, or who may have a harder time giving instruction within the classroom due to linguistic challenges that naturally arise among L2 speakers. Yet, upon looking at the results of the study, NNES students did not seem to be as forbearing when it came to the language barriers/accents that NNESTs possessed, with nearly half (48%) of the students saying that had problems with their NNESTs and over 87% of those students who did have problems remarking on the difficult they have understanding their instructor due to their instructors accent. In regards to non-native English speakers rating other non-native English speakers, it seemed to be a higher percentage of students who rated their instructor than I had expected.

Additionally, NNES students overwhelmingly stated that they would prefer to have a Native English speaker as their instructor rather than a Non-Native English speaker, which again, was somewhat surprising. As a woman, I am familiar with being in one type of minority group

who may not always get the experiences as equally as perhaps a man would. Thus, I am used to advocating for women in roles or positions that would elevate them to a higher level of leadership (that is justifiably earned, of course); my mistaken assumption going into this research was that NNES students would advocate for other NNES instructors in roles and positions of leadership that would elevate NNES into positions of stature and influence (in hopes that they would also have someone who would support and advocate for their advancement in positions of leadership, such as professoriate), yet that does not seem to be the case. NNES students unequivocally prefer an NEST in comparison with an NNEST, many of them stating that NESTs' instruction is simply easier to understand and has higher clarity. Thus, even if the instructor speaks the same Native language, or has dealt with similar problems and difficulties in learning a new language and adjusting to a new culture, NNES students would prefer an NEST as their teacher. Upon further consideration, this is understandable, for students who attend university want to have the most rewarding, effective educational experience possible, and if they believe that an instructors' language in any way hinders the comprehension of a certain concept within a class, or an entire class in general, then their preference for an instructor who will provide the least amount of challenges to the students' learning experience will most often be preferred, regardless if the student does or does not feel compassion for the instructor who may be going through some of the same ESL difficulties with which the students are dealing.

Research Question 4: Are there solutions to any problems that may arise between NNESTs/NESTs and NNES/NES students?

The final research question dealt with solutions to the potential problems that may arise when NNESTs/NEST and NNES/NES students come into contact. Obviously, based on the research, the group of students who had the most difficulty overall was NES students who had difficulty with their NNESTs, while NNESs students having difficulty with their NNETs was in

second place for the most difficulty, thirdly being NES students who did *not* have problems with their NESTs rating next, with NNES students rating their problems least with NESTs. Therefore, the group that needs a solution to this language barrier/accent difficulty the most is NES students and NNESTs. NNESTs actually rank highest in needs analysis because they were ranked the largest group that students, both NES and NNES, had struggles with. Also, when participants were asked about possible solutions for this language barrier/accent problem, the solutions were majorly directed towards NNESTs taking language classes, pronunciation classes, and/or public speaking classes to improve their language and/or presentation within their instruction.

Also, a few participants brought up a simple solution to this language issue between student and their NNESTs: if a course has a Non-Native English speaker as a professor, there should be at least one TA for that course that is a Native English speaker. This may solve many of the short-term problems for students, for the students who may struggle with their NNEST can simply go to their TA's office hours and ask follow questions for any part of the lecture or information that did not make sense to the student; the hope is that the TA is knowledgeable enough to answer any questions that the students have regarding comprehension difficulty or lack of understanding within class/lecture. Obviously, this solution may not always be possible, for the TAs could very well be Non-Native English speakers as well and the students may have the same difficulty understanding the TA as they do the professor. Yet, this may help to solve two different issues that bring in the cultural awareness aspect in a positive way; if at all possible, connect NNES professors with NES TAs and connect NES professors with NNES TAs. By bringing two different cultures together, students would perhaps feel more comfortable asking more in-depth questions towards the person with whom they feel they can better communicate, be that the professor or the TA. Also, by pairing TAs with professors from two

different native languages and two different cultural backgrounds, it also brings a deeper cultural awareness between the instructors, who then may be able to form a greater relationship and share the specific needs of the students with one another.

Within this possible solution among the students, another factor enters into play. Several participants stated their discomfort with being able to ask instructors to repeat something because they didn't understand it in class; thus, many will forego understanding because they do not feel the freedom to ask in the middle of a lecture if the instructor could repeat something, which is consistent with the findings of Radić-Bojanić, Topalov & Sinwongsuwat (2015), who stated that many students would prefer to not speak up at all and understand a problem rather than speak up and be embarrassed or shamed for doing so. Therefore, several students suggested that instructors need to be more outright in stating that students should feel the freedom to ask clarifying questions or repetition questions in the middle of lecture. If a professor is particularly knowledgeable about previous students having commented on Instructor Course Evaluation Summaries (ICES) about a language barrier/accent difficulty, then the instructor should be much more cognizant of the struggle students may have and, thus, want to alleviate the problem as much as possible through various means. A professor giving allowance for students to ask clarifying questions (especially if he/she acknowledges the difficulty some students may encounter due to language barrier) could be very freeing for some students who previously would have never felt the freedom or comfort to ask a professor to repeat himself/herself in class. Again, this requires a great deal of boldness on the instructor's part, for very rarely is the language barrier/accent difficulty addressed within the actual class due to the embarrassment it brings to the instructor as well as additional challenges that may arise from the acknowledgement of this difficulty.

CHAPTER 7: CONCLUSIONS

Concluding Remarks

As discussed in this thesis, I wanted to study engineering students' viewpoints specifically regarding both NESTs and NNESTs, for, as stated, there is a significant amount of research that is lacking in regards to ESL instructors within engineering. By using a combination of student questionnaires and interviews, I was able to look at the gap regarding NES and NNES students' perceptions of both NESTs and NNESTs within the College of Engineering at the University of Illinois. Through surveying nearly 200 students, I was able to determine the perceptions of both NES and NNES students towards NESTs and NNESTs, and discover the reasons as to students' perceptions of their instructors, as well as students' suggestions for changing certain aspects of their educational experience at the University of Illinois through simple changes that both the instructors and the students can make to create a deeper understanding between students and their instructors, both NES and NNES.

Overall, this study was successful in that it addressed students' perceptions of NESTs and NNESTs specifically within engineering, which has not had enough research devoted to it; this allows for an opening of dialogue towards improvements that can be made amidst not only instructors within the engineering department, but instructors in every department at universities, for it allows the various issues that NESTs and NNESTs deal with on a regular basis to be addressed, discussed, and possible solutions to be created. Thus, I consider this study a small contribution towards that conversation, giving students a chance to speak more in-depth about problems they have had in cross-cultural communication, as well as possible solutions that will benefit not only the students, but the instructors as well.

Weakness of Study

Although I believe that my research project is successful in dealing with many of the issues that are important in addressing cultural and linguistic challenges that arise between NES and NNES instructors and students within the College of Engineering, there are still some limitations to the project that affect the overall conclusions formed from the analysis. These limitations should be taken into consideration when interpreting the analysis and conclusions of the research and can be addressed in future research.

The first limitation deals with the number of students surveyed; I had hoped to have a higher number of participants who completed the survey in order to have a very comprehensive set of results and thus have a greater opportunity to compare various categories within the research, such as having more students so that I might be able to divide it more evenly between different types of engineering (civil, electrical, etc.) and determine if there were any themes and patterns that occur within specific engineering majors and fields. Moreover, by having a greater number of participants, I could ensure that the participants were more evenly divided between Native and Non-Native English speakers (my study has more Non-Native English speakers), graduates and undergraduates (my study has more graduates), as well as more diversity within my group (my study was lacking in minority Native English speaking American viewpoints such as African American males and females, Hispanic males and females, etc.) By ensuring that these groups are included, I would have a more comprehensive view of all engineers' viewpoints from many cultural backgrounds, both NES and NNES, that I may not necessarily have the data.

A second limitation deals with the number of students I was able to interview. I had hoped to interview at least 15 students personally in order to have more in-depth responses on

my research questions as well as a deeper insight into the survey questions based upon their open-ended responses. Unfortunately, I was only able to procure half of that number, thus, hindering how well-rounded my interview process was. The research would have been more extensive had I had a greater number of Non-Native English speakers in my interviews, as well as a greater number of students who are still in school. However, were I to choose between those who have already graduated from the university versus those who have not, I would prefer to have the numbers, although small, as they were, for the majority of my interviews were with those who had already graduated; I prefer this because it gives participants a more exhaustive experience as compared with undergraduates who may not have had the full scope of classes and experiences that a post-grad has had.

In regards to my survey, there are a few questions that I would have like to have included or disregarded once I had finished my research and was looking at it with 20/20 vision. It would have been beneficial to have included the question towards all students within the survey, "What is your suggestion for improving this language barrier/accent difficulty between NESs and NNESs?" Unfortunately, this was a question that I refrained from using within the survey and used only with the personal student interviews. However, in hindsight, it would have been advantageous towards my research to have included this question within my student survey as opposed to merely having it in the student interviews. I would have also included an option for students to specify the native language for their instructors; this would give me more valuable data to look more specifically at which instructors from which country, as well as the specific native language, students had the most difficult time comprehending. This would have provided invaluable information for the College of Engineering to know specific groups of instructors who

would benefit from having more guidance in regards to adapting their instruction to give students more understanding.

Also, it would have been beneficial for me to have students state the nationality of the instructor they were rating for the NNEST rating. This way, the results would have showed if students are harsher critics towards students of one nationality or another. It also would have shown if there were tendencies for biases throughout the survey based upon what the nationality of the instructor was. Initially, I chose to leave this question out of the survey because I feared that it would create skewed data; many students may have simply picked the nationality of the instructor, yet it could have been totally incorrect. For example, an American student may have stated that a Hispanic instructor was "Mexican," when they were actually Cuban, and an Indian student may not have known the difference between a Korean instructor or a Chinese instructor and merely guessed at their nationality. I didn't want specific groups of instructors to be receiving negative responses when perhaps it wasn't even their nationality that was being rated. Thus, I chose to remove this question from the survey. Yet, looking back on the survey, I could have created some kind of rating system that included the instructors' nationality, yet still ensuring that the correct nationality of the instructor was being given.

Additionally, it would have been valuable for me to have removed a few questions within my survey that I found were ineffective in addressing any specific issue or giving further data to supplement any of the other research questions; had I the option, I would have removed the questions pertaining to students' belief of what grade they would receive in the class; this question proved to be unhelpful, for nearly all the students still expected the grade of an "A," regardless if their instructor was effective or not; many participants merely deemed that their hard work and study would be enough to receive a good grade in the class, regardless of their

instructor. Thus, I would remove this question as well as the reason why they thought they would receive a specific grade, for it did little to actually supplement or support any of the other research questions drawn on the survey.

Research Implications

Once I had completed this project, I noticed several areas where further research could be completed to add to the current research and increase the knowledge provided in this paper. One area of research that could be very beneficial would be a more in-depth analysis of NES and NNES Engineering instructors specifically. Also, should more research be done on this topic, it would be prudent to get a larger group of students surveyed within engineering.

Obviously, less than 200 students is a small data set, and having a larger number of students would ensure that the results are unbiased and fully comprehensive. Thus, it would be prudent to include a wider range of students within engineering. Due to the limitations of this research, there was not enough time to research the instructors in addition to engineering students, but further study should be conducted that aims at determining the needs of engineering instructors and their perceptions of their instruction within the College of Engineering as well as their perception of students within engineering and the students' reception towards their instruction.

In addition, further research might be warranted if a researcher implemented several of the interviewees' suggestions, which appear to be simple fixes that could easily be actualized. A study could be created using a controlled group and an experimental group where a series of sections with NNESTs implemented the suggestions provided by the interviewees, such as having taken pronunciation and/or instructional teaching courses, acknowledging the language barrier at the beginning of class and encouraging students to ask for clarification if they don't understand something due to language difficulties, as well as linking TAs with a professor (or

vice versa) who is the counterpart to their native language. Further study might determine whether these types of practices would be successful in providing a partial solution to the difficulties encountered in this area.

Recommendations/ Suggestions for Future Study

The recommendations that should be researched include having a more in depth analysis of their instructors before they give them charge of classrooms. Listed are recommendations that should be considered in order to ensure that there is great understanding between instructors and students who may come from various accents and language backgrounds. It would be beneficial for these suggestions to be turned into future study in order to determine the success of such recommendations, as well as provide more data on the matter.

Recommendation #1

Instructors who have had little to no training in regards to their pronunciation/enunciation with students should be required to take a class that will provide pronunciation and enunciation instruction for those who have a thicker accent or who have been rated more negatively on ICES forms to be able to take language courses that will benefit their instructional methods in regards to their student having more thorough comprehension within their course. This will ensure that instructors are able to have a venue where they can practice modifying their language in order to be more thoroughly understood. Of course, this would also include that ICES forms were including an element that inquires about the language proficiency of the instructor, which at this time, is not usually included within an ICES form.

Recommendation #2

At the beginning of the semester in the first few classes, the instructor should openly state that there may be difficulties in understanding due to language barriers/accents, and thus, the

instructor should encourage students to feel open to ask questions for clarification and understanding at any point during any class in order to have the fullest understanding possible between instructor and student. This may remove any hesitations students may have in asking the instructor to repeat him/herself or clarify something that was not understood. It will also provide more open communication on language in general, which may create more conversations between not only instructor and student, but also between the students themselves.

Recommendation #3

The third recommendation for the College of Engineering is that TAs and professors should be paired up with someone who is opposite their native language, or professors could be co-teachers. This means that there would be two instructors within a classroom and if a professor's native language is not English, his/her TA's/co-teacher's native language would be English. The same would be true if a professor's native language was English; his/her TA's/co-teacher's native language would not be English. This may provide both parties with advantages: students could have a TA or a professor that they may be more comfortable discussing certain issues with due to the native language of that TA or professor, and this may also provide TAs and professors with someone with whom they can create deeper cultural understanding. The greater amount of time that TAs and professors spend time with one another, they are more likely to connect to one another more thoroughly due to background language, and thus, may create deeper cultural understanding with someone with whom they may have not previously had a deep cultural connection.

Recommendation #4

It should also become a standard for students to be paired up in "natural" settings, such as NES and NNES students being paired up as roommates, lab mates, group mates, etc. This may

create a more natural setting for students who would not normally connect with one another to have a deeper connection and more exposure to other cultures and accents rather than merely their own. This would also encourage students to practice language with one another so that both groups (NES and NNES) learn how to effectively communicate and be understood by someone from another language background/culture. This would create continual cultural relationships to be formed, and hopefully create progress in this area.

Final Note

It is my hope that the information provided in this research paper can be used in a beneficial way that will impact the College of Engineering and its' students and instructors in a positive light that will create deeper cultural understanding, more effective instruction and facilitation within engineering courses, and serve as a resource to better meet the needs for both Native English Speaking students and instructors as well as Non-Native English Speaking students and instructors and to ensure that students are able to receive to the best of their ability and are not hindered by language barriers/issues that might be ameliorated.

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APPENDIX A: STUDENT SURVEY

Students' Perceptions Towards NNEST and NEST
Q1 Are you over 18 years of age? • Yes
O No

Q2 EVALUATION OF NES AND NNES STUDENTS' PERCEPTIONS OF NES AND NNES INSTRUCTORS

Students' Consent Form

Hello,

You are being invited to participate in a survey of students' perceptions of your instructors, both Native English speaking and Non-Native English speaking instructors at the University of Illinois. The goal of this survey is to 1) evaluate the effectiveness of instruction from Native English speaking instructors vs. Non-Native English speaking instructors towards you as students, 2) evaluate the perceived impact of this instruction on both Native and Non-Native English speaking students, and 3) evaluate the impact of cultural awareness on both students and instructors.

Time: The survey will take fifteen minutes to complete, and will be used to gather information about students' perceptions and opinions of their Native English speaking and Non-Native English speaking instructors of engineering at the University of Illinois. You are free to decline to answer any questions you do not wish to answer.

Anonymity: All collected data will be kept strictly confidential, and your name will never be associated with your data because we do not use any personal identification information in reporting. The course instructor will not receive notification of individual student involvement in this studay. The results of the individual answers of the survey will be kept strictly confidential, and your name will never be associated with the results because we do not use any personal identification information in reporting. A general summary of the results may be used for other academic papers, presentations, or articles with further approval from the Institutional Review Board (IRB). A summary of results that strictly maintains participant confidentiality will be available upon request.

Data will not be attributed to one person and all participants must be at least 18 years old. Your participation in this survey will have no effect on your grades, current status, or future relations with the University of Illinois at Urbana-Champaign.

Purpose of Research:

Information about Participants: Any presentation or publication of data will not identify you as a participant in any way. Evaluation results will be shared with program coordinators and

staff. Lessons learned from the survey may also be reported in scholarly articles that will not include identifying information about participants.

Oversight of Research: When this research is discussed or published, no one will know that vou were in the study. However, laws and university rules might require us to tell certain people about you. For example, your records from this research may be seen or copied by the following people or groups: a) representatives of the university committee and office that reviews and approves research studies, the Institutional Review Board (IRB) and Office for Protection of Research Subjects; and b) other representatives of the state and university responsible for ethical, regulatory, or financial oversight of research.

Information for Records: If you have any questions about your rights as a participant in this study or any concerns or complaints, please contact the University of Illinois Institutional Review Board at 217-333-2670 or via email at irb@illinois.edu. If you have any questions about this study, you may contact Carrie Wells (carrie.wells10@gmail.com). You may print a copy or

request a copy of this information for your records. Sincerely, Carrie Wells, Independent **Evaluator** *IRB Agreement: Please read the above statement and check the box if you agree to participate in the evaluation of students' and instructors' perceptions of Native and Non Native English speaking students and instructors in the engineering department. understood, and printed a copy of, the above consent form and desire of my own free will to participate in this study. O Yes O No Instructions: This set of questions is about your experiences with native English speaking instructors. When responding to these questions, you should only consider your native English speaking instructors. Q3 During your time at the University of Illinois, have you had native English speaking instructors (professors, TAs, etc.)? O Yes O No Q4 How many Native English speaking instructors (professors, TAs, etc.) do you think you have had at the University of Illinois? **O** 1-10 **O** 10-20 O 20+Q5 How many of these Native English speaking instructors (professors, TAs, etc.) have taught classes in your major? **O** 1-10 **O** 10-20

O 20+

-	How effective was their instruction?
	Very Ineffective
	Ineffective
	Somewhat Ineffective
	Neither Effective nor Ineffective
	Somewhat Effective
	Effective
0	Very Effective
Q7	Why did you rate their instruction that way?
	Did you have any problems with these instructors while they were teaching you? Yes
	No
ins	What classroom problems you have had when you have had a Native English speaking tructor? (i.e. difficulty understanding, speaks too quickly, etc.) Difficulty understanding due to accent
O	Spoke too quickly/slowly
O	Did not convey information clearly
0	Was not prepared for class
0	Other:
	O Have you done anything to fix any of the above problems? If so, what? Asked questions in class to clarify Attended office hours Spoke to instructor after/before class Other
-	1 In one of your major courses with a Native English speaking instructor, what do/did you
_	pect your grade will/would be?
O	
O	
0	
O	
O	F

☐ The instructor was easy to understand
☐ The instructor taught well
☐ I asked many questions
☐ I attended office hours
☐ I studied hard
☐ I understood the content
☐ The instructor was difficult to understand
☐ The instructor did not teach well
☐ I did not ask many questions
☐ I did not attend office hours
☐ I did not study hard
☐ I did not understand the content
□ Other
Q13 Instructions: The next set of questions are about your experiences with non-native English speaking instructors. When responding to these questions, you should only consider your non-native English speaking instructors. Q14 During your time at the University of Illinois, have you had Non-Native English speaking instructors (professors, TAs, etc.)? Q Yes Q No
Q15 How many Non-Native English speaking instructors (professors, TAs, etc.) do you think you have had at the University of Illinois? O 1-10 O 10-20 O 20+

O Very Ineffective
O Ineffective
O Somewhat Ineffective
O Neither Effective nor Ineffective
O Somewhat Effective
O Effective
O Very Effective
Q18 Why did you rate their instruction that way?
Q19 Did you have any problems with these instructors while they were teaching you?
O Yes
O No
Q20 What classroom problems have you had when you have had a Non-Native English speaking instructor? (i.e. difficulty understanding, speaks too quickly, etc.) □ Difficulty understanding due to accent □ Spoke too quickly/slowly □ Did not convey information clearly □ Was not prepared for class □ Other:
Q21 Have you done anything to fix any of the above problems you have had? If so, what? Asked questions in class to clarify Attended office hours
☐ Spoke to instructor after/before class
□ Other:
Q22 In one of your major courses with a Non- Native English speaking instructor, what do/did you expect your grade will/would be? O A O B O C O D O F

	3 Why do/did you think you will/would receive that grade?
	The instructor was easy to understand
	The instructor taught well
	I asked many questions
	I attended office hours
	I studied hard
	I understood the content
	The instructor was difficult to understand
	The instructor did not teach well
	I did not ask many questions
	I did not attend office hours
	I did not study hard
	I did not understand the content
Ц	Other:
En O	4 In your major, would you prefer to be taught by a Native English Speaking or Non-Native glish speaking instructor? Native English Speaker Non-Native English Speaker
Q2	5 If you answered Native, why do you prefer being taught by a Native English Speaker?
	6 If you answered Non-Native, why do you prefer being taught by a Non-Native English eaker?
Ω^2	7 Have you ever lived in another country that was not your home country?
_	Yes
0	No
-	8 What reason have you lived outside of your home country? Moved with family
	Moved for school
	Moved on my own
	Other:
	9 How frequently do you travel outside of the United States?
	Never
	Rarely
	Occasionally
	A moderate amount
O	A great deal

-	What is your nationality?			
	American			
O	Chinese			
O	Korean			
O	Indian			
O	Middle Eastern			
O	Other:			
	l What is your native language? English			
	Mandarin			
	Korean			
	Hindi			
	Arabic			
•	Other:			
Q32 What is your gender?				
	Male			
O	Female			
O	Other			
Q33 What year in school are you?				
_	Freshman			
	Sophomore			
	Junior			
	Senior			
	Master's Student			
	PhD Student			
	Post-Doc			
	I have graduated			
•	i nave graduated			
Q34	4 Do you have any other comments?			

APPENDIX B: STUDENT INTERVIEW QUESTIONS

- 1) What are Native-English-Speaking students' perceptions towards their NNESTs specifically within Engineering in comparison with their NESTs within Engineering?
- 2) Are there solutions to any cultural disparities between the teacher and the student that impact the learning environment within Engineering?
- 3) Although many international students have a deep understanding of being a second language learner within an EFL context, do they give deference towards international instructors who find themselves in that very same context?
- 4) What are the solutions to problems that may arise due to the lack of thorough communication between instructor and student?
- 5) Follow up questions to receive more in-depth answers after each question.

APPENDIX C: IRB APPROVAL LETTER

UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN

Office of the Vice Chancellor for Research

Office for the Protection of Research Subjects 528 East Green Street Suite 203 Champaign, IL 61820



January 4, 2016

Randall Sadler 4080 FLB 707 S Mathews Ave Urbana, IL 61801 M/C 168

RE: Evaluation of NNES and NES Students' Perceptions of NES and NNES Instructors for

Engineering

IRB Protocol Number: 16430

Dear Dr. Sadler:

Thank you for submitting the completed IRB application form for your project entitled *Evaluation of NNES and NES Students' Perceptions of NES and NNES Instructors for Engineering*. Your project was assigned Institutional Review Board (IRB) Protocol Number 16430 and reviewed. It has been determined that the research activities described in this application meet the criteria for exemption at 45CFR46.101(b)(1).

This determination of exemption only applies to the research study as submitted. Please note that additional modifications to your project need to be submitted to the IRB for review and exemption determination or approval before the modifications are initiated.

We appreciate your conscientious adherence to the requirements of human subjects research. If you have any questions about the IRB process, or if you need assistance at any time, please feel free to contact me or the IRB Office, or visit our website at http://www.irb.illinois.edu.

Sincerely,

Dustin L. Yocum, Human Subjects Research Specialist, OPRS

c: Carrie Wells

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