A Thesis

entitled

Circulation of the Native Language in ESL Environments: Correlations Between L1 Perceptions and L1 Use in the English Classroom

by

Makayla Lockett

Submitted to the Graduate Faculty as partial fulfillment of the requirements for the Master of Arts Degree in English

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May, 2016

An Abstract of

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Research in language acquisition is diverse. However, there is a lack of research that focuses on communication and the physical environment in which it occurs. This research aims to discover attitudes and perceptions about communicative patterns in the English classroom, as well as provide data about physically observed exchanges that occur within that context. This research not only promotes the idea of preventing researchers from pushing people to the periphery and focusing on language in a classroom, but it also aims to provide data that might aid in understanding the physical systems that play a part in learning and communication.

Dedication

This research is dedicated to the field of language learning, an incredibly supportive family, and a group of friends and acquaintances encountered on this journey from a list too large to provide. To the numerous instructors who provided me the opportunities to become invested in the course materials, and to a few specific names: Michael, Eleesha, Anthony, Ayden, Allyson, Anne, Jame'se and Da'von, all of whom have been immeasurably helpful during this two year journey. Most of all, this research is dedicated to Esther Louise Lockett, a woman without whom my journey through higher education wouldn't have been possible. From now until forever I owe my life's research and motivation to her.

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List of Abbreviations

FL .....Foreign Language

HSL .....Hard-Science Linguistics

L1 .....First Language

L2 .....Second Language

NL .....Native Language

NNS.....Non-native Speaker

Chapter One

Literature Review

Influence of the L1 on the L2

As more of the world's population is bilingual than monolingual, it's become increasingly necessary to familiarize ourselves with the impact of the native language (NL) in language learning contexts. Though the effects of the first language (L1) on the second language (L2) have been documented in a significant amount of ESL research, it is still unclear how extensively the L1 impacts L2 acquisition, and how students are using it every day in specific contexts. Many consider L1 use to be unavoidable, despite rules and classroom obligations that mitigate its use (Carless, 2007), and it's easy to see that the L1 will slip into a student's language learning experience almost naturally, and inevitably (Scott & De La Fuente, 2008; Cook, 2001; Carless, 2007). Regardless, many teachers still support a more monolingual approach[1] to language learning, whether it be because of a sense of obligation, a misunderstanding of the effects of the L1 on L2 language learning, or an inheritance of the overarching pedagogy in language instruction. There is a hesitancy to slip away from the influence of a monolingual orthodoxy, and this presents itself in a multitude of studies in which the students and teachers can display discomfort at using too much, or even just using, a language other than the target language (Storch, 2003; Ismail, 2012).

Despite these overarching views, research suggests that the native language is a beneficial tool in language learning, and that used correctly it can aid both teachers and

[1] It is important to clarify that while many teachers support what one would consider a "monolingual orthodoxy", many times instructors do not actually believe that a learning environment will be completely void of the L1. In a way, they accept it to the point that they are not be aware of its use.

students in acquisition and acquisition instruction (Ghorbani, 2011; Cook, 2001; Evans, Shvidko & Hartshorn, 2015). In fact, a significant amount of research suggests that the presence of the L1 in the language learning classroom is not detrimental unless abused and could instead be utilized to foster very consistent and vigorous results.

There remains one issue that must first be approached before we can appropriately apply our knowledge within this area to enhance the language learning experience. The argument against existing research is not that it is inconsequential, but rather the implications gathered from this research are being incorrectly used in assuming information about the nature of NL use. There is a pattern in the literature that the most relative aspects of NL use are social, psychological and linguistic in nature. Current research does, in fact, focus on the physical conditions of the environment in which the NL occurs (the participants as physical entities, the duration of the exchange, etc.), but then proceeds to use that collected data and apply it to areas of human discourse which are often times abstract or completely non-physical, and they are then generally shoved into one of the three categories mentioned above. There is no argument that there are components of psychology, sociology and linguistics which are very physical and documented according to their concrete conditions, but there are also components of each area which are easily abstract and subjective, and it's these components which are often referenced when planning and redeveloping the L2 curriculum. The following review of literature discusses the viewpoint of current scholars according to the social, psychological and linguistic influence they assume native language use has on second language acquisition. It then proceeds to discuss the real-world implications behind the data collected throughout these studies.

Social Influence. In review, L1 and L2 collaboration have a long history in linguistic literature. According to research, the influence of the L1 on the social context of language learning participants is especially important to consider. Though L1 use is easy to write off as a linguistic tool, it is the proposition of several studies that the social impact on language acquisition is quite high and determines a lot about the L1 exchanges that occur in the learning environment. There are a lot of suggestions about how the L1 is used socially. According to Carless (2007), "…the MT [Mother Tongue] allowed students to express meaning, identity or humour" (p. 3). Identity as a tool of social interaction is an important angle because it approaches the idea that banning the native language (NL)[2] from the classroom is in turn banning a large part of a student's identity which may invalidate their lived experiences and make motivation for language learning much lower (Schweers 1999, p.6). Further, sharing culture is, in a sense, validating a lived experience and can be communicated much more fluidly via the L1. Brooks-Lewis (2009) agrees and goes further in her study of adult learners' perceptions of L1 use, and her introduction recollects her experiences with learning and teaching in a Spanish speaking context. When discussing factors that led her to her research, the first one was that "the learner was ignored… I wrote a course on the learners I was working with, one aspect of which was the incorporation of their L1" (p. 217). In this case, Brooks-Lewis seemingly considers the L1 for her students a large part of who they are as language learners, and makes the decision from this to incorporate the L1 into her teaching

[2] There are three terms used with this paper to denote speaking habits for second language learners: mother tongue (MT), first language/second language (L1/L2) and Native Language (NL). The three terms have similar properties but are not necessarily the same. Within this paper, the term L1 denotes use of a language in which fluency started in it significantly before any other language. Native language is any language in which the speaker has native or native like competence. Mother tongue is any language learned from infancy and is much more closely connected to the identity of the speaker.

environments. The results of her research show that students consider language learning, in essence, damaging to their identity as native speakers of Spanish. In some way they consider total immersion a potential for a change of character and personhood. One response to the survey stated, "The most important lesson that I learned at this time was that when we learn other languages, we must not lose our identity or change it for other customs or traditions." (p. 227). Thus, having the opportunity to exchange in a more collaborative dialogue with peers, whether in the language learning environment or outside of it, is important to many learners.

This idea of collaborative dialogue being essential to language learning, and the social aspects of the L1 on acquisition are noticed by Cook (2001) and Anton & Dicamilla (1998). While Anton & Dicamilla take an approach that is clearly more psychological, Cook uses their research to further the idea that we ought to also be looking closely at L1's social functions and labeling it more of a 'social enterprise' (p. 408). We learn our second language under the influence of our peers, instructors, and surroundings, and so to consider these factors any less relevant to the discovering of the L1 influence on second language acquisition is seemingly a large misstep. It is imperative that we consider the entire social context under which the L1 emerges in the language learning environment.

When discussing the sociology of language use, the first thing we must consider is the environment and those that inhabit it. Though it is agreed that many students are participating in a completely social context, the first step in documenting that context is to find out the relevant physical factors that are influencing the exchanges. What previous research has accomplished is certainly a clearer picture about introspective perceptions of

the NL use and more attitudinal reflections, and that has all been gathered from the recollections of the participants in the exchange. It was mentioned earlier when the survey response indicated that students were afraid to lose their identities but what students don't realize is that any form of learning creates a change in the person who is doing it. So instead of the surveys finding out the physical repercussions of communicative exchange, they manage to compile a set of value judgments and students' subjective thoughts of the way that communication endears them to others. In turn, the results of those studies have drawn conclusions about communicative learning (how we do it, under what circumstances, etc.) based on a set of results which answers a different question.

Linguistic Influence. Another commonly cited component of language learning is the linguistics of it. This approach to the learning environment is often grammatical in nature. A multitude of studies mention the component of language learning that houses both grammar and vocabulary as primary influential factors of L1 use (Scott & De La Fuente, 2008; Schweers, 1999; Auerbach, 1993; Tang, 2002; Turnbull, 2001) Though teaching methodology for second language instruction is constantly in flux, grammar-translation is a common method that has its roots in many foreign language curricula, and still influences practices that are found therein. Students learning a foreign language are often aware of, and have practice with, grammar-translation methods, and use the L1 as a means to discuss vocabulary in the context of their L1, and clarify vocabulary (Scott & De La Fuente, 2008; Wigglesworth, 2003). Though discussion can be considered a social component of language learning, in fact, discussions of this kind have often been considered linguistic in nature, as meta-talk about language learning aims to increase a

person's knowledge specifically for linguistic gains and to achieve learning goals in the classroom until competency in the language form is acquired. Brooks-Lewis' (2009) research supported the idea that "…the inclusion of the L1 can raise awareness not only of differences but of similarities between the L1 and the target language" (p. 233). Further, Anton & Dicamilla (1998) go more in-depth about what happens to content and form in a discussion using the L1 about the L2. The authors state that utterances in the L1 can "trigger a semantic analysis and related lexical search, a communicative and cognitive strategy that leads the learners to jointly access the L2 forms that are available to them" (p. 323). They see students using the L1 to further their linguistic knowledge, and putting their heads together for cognitive problem-solving when faced with a task in the L2 that they do not have the appropriate knowledge for. Though this also is said to serve a social function, linguistically the students are seen as using one another to advance in non-native language form. In this case, the NL use is specific to the form of the language being studied.

A large part of the difficulty with a grammatical approach to communicative learning is that it assumes the reality of language. Accepting this premise means that our observation of the communication occurring does not begin with the people who are actually carrying it out. Saying that something has a grammatical influence ensures that we look away from what is actually occurring in the environment of the exchange – from the surroundings to the energy flow to the people participating. How people behave in certain environments is determined and influenced by that environment. This approach to communication is what Victor Yngve (2004) calls the "hard reality" of communicative learning. Previously mentioned research that depends on using language testing to infer

ways in which the NL is used and the L2 is acquired often push aside the conditions under which this acquisition occur. Further, it presents a precipice for L2 curriculum development and approach because it pushes people and the reality of the situation to the periphery and focuses on abstract constructs of things like grammar. As an example about how people communicate in given situations, not necessarily through speech but with the entire context and physical systems available, take a situation where a person accidentally steps in a puddle on the walk to school. Upon looking up, they may seemingly be in distress and for those passing; it may be quite clear that the person they're observing is upset, or that they are unhappy. This is a very real world communication that occurs and which then influences the abstract or underlying thoughts, beliefs and ideas that a person has acquired over the course of their lifetimes. However – all of this occurs because anger is a very real physiological response to an unwanted situation. In Hard Science Linguistics (HSL), it's proposed that communicative situations that occur between people are dictated by the physical systems that are present at the time.

If we'd like to know what conditions generally promote a certain type of communication, then we must start with the people who are communicating and the environment that they are communicating in. We then move to how they're accomplishing the communication and from there can begin to discuss what knowledge, abilities and aspirations are represented by the properties we observe. We have to stay away from leaping to grammar and language as being equivalent to communication when it doesn't apply to the same domain (physical systems and psychological systems are separated) and much like the social component, perhaps a largely pressing issue in an

outstanding amount of modern research is being able to separate abstract and concrete properties.

Psychological Influence. Finally, it's said that the L1 plays a much more primal and primitive role in the language learning classroom. As a psychological component, the L1 helps maintain interest in content and provides students more opportunities to be involved. This involvement, in turn, allows the student to feel needed and necessary in the language learning process, and boosts motivation to further participate and increase their skills. The fact that NL and L1 use is seemingly spontaneous and occurs whether the student is aware of it or not (Scott & De La Fuente, 2008) indicates that there is a much more psychological component to the use of the L1 than teachers consider when conducting a monolingual class. In many cases, authors of current research mention that students will use their L1, either internally or externally, not necessarily meaning to do so (Scott & De La Fuente, 2008; Cook, V. 2001…) Further, in a study by Finn (2015), the author introduces the emotional aspect of language learning, studying the effects of emotional needs on language learning students. The sense of being needed in a classroom, of being necessary and pivotal to the learning environment was important in the language learning of a respondent in the study. Being emotionally comfortable is important for language learning. Research suggests that language learning has the potential (in the classroom setting) to put adults in an uncomfortable position, which inhibits risk-taking and prevents them from participating to their full potential. As participation in the language learning class is personal and emotional, the author references other works to suggest that being in an unfit psychological state prevents language acquisition from occurring at a faster pace. Finn then goes on to acknowledge

the social impact and how that ties into the psychological component of language learning (p. 37). Brooks-Lewis (2009) states that, "risk-taking is integral to language learning, but adults are particularly unwilling to put themselves in positions in which they are exposed to making mistakes" (p. 225).

Perhaps the most intensive look at the psychological component of language learning is Anton & Dicamilla (1998) who take the Vygotskyan approach to analysis of L1 use. According to the authors, the L1 serves critical functions such as mediating social activity, helps in scaffolding[3] amongst peers, and serves to externalize humans' inner speech to regulate mental activity during tasks. The authors ascertain that when learning a language, children use the speech to regulate their learning process, and so speech develops egocentrically, or for one's self. This is the same speech that is responsible for organizing and guiding mental functioning (p. 317). When this speech works its way outwards to the social level, scaffolding becomes relevant, as it allows the person in the exchange who is knowledgeable about the content to lead the activity so that the person whose language ability is lower can focus their cognitive attention on those things that they do understand. It is through this that the linguistic and social aspects of language learning becoming intertwined. Making the internal speech external allows for a dialogue between other students, and the scaffolding leads to the semantic analysis earlier mentioned. It is important to point out that the previous two categories have been approached above, but the psychological component is still to be explored.

[3] Scaffolding is a term often used to discuss instructional methods where teaching habits are modified to fit the learner, providing them with support to enable their learning until they understand concepts that will eventually allow them to progress individually. Other definitions include prior knowledge a learner has that helps in new learning, and other cognitive processes that aid in learning. As a term, scaffolding has a variety of uses.

Models of the inner workings of the brain are highly-developed and so we are prepared to discuss matters of the brain within its physical confines. This is something accomplished by Maturana and Varela (1987) when they discuss the concept of structural coupling. They define it as, "a history of recurrent interactions leading to the structural congruence between two (or more) systems" (p.75). Every cellular interaction is subjected to structural coupling, and this is close to the idea of scaffolding and Vygotsky's approach mentioned above. It is important that if we begin research in one domain, we continue to follow it through in order to provide consistency with collected results. The largest difference cognitive psychology and cognitive science is the psychological component, and this separation likely occurred because of a clash in the abstract approach to psychology in general. Keeping things to their physical properties is pertinent for the validation of our predictions and theories about communication.

Though to go further and to provide a practical example of psychological (in this case observed behavioral) changes that occur daily between humans, we can take our earlier example of the person stepping into the puddle and their natural response to that action. These are behaviors that stem from the physical environment which have every bit to do with a person's hormone levels, a person's immediate environment, and so on. A person becoming scared of a potential threat is a physical and natural response following the visual input of a threat being received. A person releases chemicals that make physical changes in the body which can ensure the likelihood of survival in a dangerous situation. In the communicative environment, we need to begin talking about where the threat is, so to speak, and then we need to begin documenting more wholly the physical changes which occur in its presence.

Purpose of the L1 in the L2 Environment

Labeling interactions social, linguistic or psychological is an inadequate way to approach communication. Though an argument can be made that these three components of language acquisition are involved when a student uses the L1, it comes to nothing if we are unable to explain in detail the physical context of the communicative exchange. What is essentially worth looking at are the common threads of an environment that might prompt a person to fall back on their NL (in this case, communicate through this specific set of means). What present research suggests about the uses for that specific communicative feature are highlighted below and has been split up into what authors suggest are the negative and positive uses for a specific language in a the classroom environment.

Negative Uses. Research argues that using the L1 is detrimental to language learning, however many of the arguments use the subjective basis of "too much" use being the detrimental factor (this also applies to the idea that "language" in and of itself is a problematic gauge of communicative skill, but it's important to discuss the literature in the frame of what has currently been explored.) When we begin to consider how many things become subjective when language is involved, it complicates a lot of aspects of language use as a communicative tool. If we begin looking at communication within the context of the real world, rather than how language is learned, we prevent crossing the lines between subjective research and non-subjective research. To go further with this we'll review an article by Ismail (2012) which states, "there are very few studies or academic papers that support the monolingual fallacy" (p. 147). As far as his research reported, there were no studies to prove or even suggest that the L1 should never be used

in the learning classroom under any circumstances. Instead, many reprimand the overuse of the L1 and caution student dependence on it to complete tasks. Some of the detriments listed within research are that the use of the L1 can occasionally undermine both the meaning of the assignment and the meaning of the class (Carless, 2008). The environment of the non-native classroom has the purpose of exposing the student to the target language as much as possible, and overuse of the L1 can impede the function of the classroom. Though, again, the idea of "too much" or "too little" native language use is subjective and takes a lot of contextual circumstances to decide. Also, teachers seldom are so strict that students don't manage to use the L1 without their knowledge. Students should have ample opportunity to practice and receive as much of the target language as possible and if the teacher is unaware of how often using the L1 is too often, they might overshoot and potentially damage the learning experiences of their students.

Turnbull's (2001) article looks at this at length. The premise for the article is that there is a role for the L1 in the second language environment, but that it should be approached cautiously, and that teachers should be aware of their language use to ensure that their students are getting the reasonable amount of target language (TL) input necessary to advance. Turnbull states that teachers should not avoid the L1, but should instead look to maximize the TL (p. 532). It is seemingly enigmatic to discuss what it means to "overuse" the native or first language. Citing Swain (1985, 1993), the author agrees that there are several factors that must be considered in order to have a better idea of what constitutes "too much", and "the nature, the relative frequency, and modification of the input, as well as interaction and/or output appear to determine if input becomes intake" (p. 533).

These mentioned negative uses all speak volumes about how we approach language in general, and what we are actually looking at when trying to discover the way that people communicate with one another. Just calling something a "second language environment" can create troubles with clarity, as it's quite difficult to discuss where the boundaries of a native and non-native or second language environment occur. In an English speaking country, but at a university in a class where everyone communicates in Arabic, is the environment a native-language environment and would it be considered as such in English? As they are in a predominantly English speaking country, will they always be considered in a non-native environment no matter who they are surrounded by? Though it's understandable how these results have come to be seen as common place, even considered a specific type of communication "positive" or "negative" has been based on a premise which is completely unclear or which, in the case of Ismail (2012) is much too subjective. It's this subjectivity which arises from domain confusion and which causes issues in understanding the extent to which students use a specific communicative method in a specific environment. However, if we consider things from the viewpoint of HSL and we include the people, objects and environments involved in the communication to set the boundaries of this terminology, it can help us better understand the physical processes which occur and which affect the choice between L1 and L2 usage.

Instead, in order to find out how something is negatively impacted we must explore how input in a specific type of communication effects input and output in another type of communication, and how that effects the brains capability to receive and produce a specific communication.

Positive Uses. In the same vein of research but on the opposite side of the tracks, there is a dearth of positive, or beneficial, L1 uses that can be found in linguistic literature. Researchers suggest that use of the L1 in the language learning classroom allows for a more appropriate allocation of cognitive resources (Scott & De La Fuente, p. 109) and allows students to use what the authors consider "natural" learning strategies for problem solving. Both Turnbull (2001) and Tang (2002) mention that for teachers, using the L1 immediately grabs the students attention, and helps with time management within an environment in which time is limited. This is especially relevant for hard to teach subjects and language forms. The linguistic application of the L1 by teachers is to primarily convey meaning that would have otherwise gone misunderstood by the student base. Ismail (2012) also agrees that there are times when the L1 is more convenient for the sake of time and clarity. This is not to say that students and teachers disagree on maximum exposure in the classroom, but that they understand there are uses for the L1. Many students agree that the TL should be used as much as possible, but state that they are more capable of arguing points and giving explanations in their L1 (Storch & Wigglesworth, 2003, p. 766). They are more afraid of an explanation in the TL because it can slow them down and make them seem more incompetent.

There is something worth mentioning here too, perhaps digressing a bit to language teaching methods that are heavily inspired by language and grammar related approaches. The idea that's most dominant in this particular subject is that communicating in a certain way for long enough will allow others the ability to also communicate in that certain way. This happens in the real world: we see things that we later can do (riding a bike) based on procedural memory (at some point we'd never

ridden it before and then the first time we did, the way our brain processed that information changed). We do things that perhaps we haven't necessarily seen, but all in all these are dependent upon the ability of the brain to make connections and adjustments, and process input from the real and physical world. Even when we discuss the pros and cons of using a certain way of communicating in a specific environment, it boils down to actually experiencing that method of communication and allowing the brain to process and recall and then produce it.

The Current Research

This research has no intention of denying that perceptions and abstractions do not at all relate to communication. In fact, a person's understanding of the world is incredibly relevant to their communicative habits because it changes their neurobiology and can, in fact, be studied through a physical platform. What Yngve (2004) suggests is that we have to first distinguish between the scientific and the introspective-philosophical, as introspective thoughts, feelings and observations "are subject to observer bias and cannot be verified reproducibly by others" (p. 268). Previous research has blended the two. By observing people in physical environments, who are dealing with dynamic systems and then relegating that information for introspective analysis, it makes implications for this type of research conjecture.

In this case, the research wants to look at student views of communication. The goal is to keep reality in the forefront of this research and determine the physical systems responsible for influencing the method of communication. However, in addition to this, gathering additional information from a survey can give a better understanding of student's attitudinal responses to their role in the environment. In structuring the study

this way, we can use the survey to create predictions that can be compared with real-world evidence and through this, can come to better understand the environments most responsible for communicative use and acquisition.

Chapter 2

Methodology

The Study

Turnbull (2001) states that future research in this area needs to understand what factors prompt second language and foreign language teachers to speak the students' L1 when the guidelines believe or promote the opposite. My research looks at the students rather than the teachers, and "factors" in this case will be gathered from the physical context in which the communicative exchange occurs. The overall purpose of this study is to examine use of the native language (a specific type of communication) in the ESL learning environment. Although this has been done, studies often consider use of the L1 within one specific context, or consider language use from one vantage point. Research can also heavily rely on a more introspective and subjective basis which makes applying the data and implications from those studies near impossible to apply to the real world setting. By starting research in the physical domain and then also looking at students roles in the environment, the hope is to provide a more solid context for analysis, and perhaps a more clear idea of L1 use and the students understanding of that L1 use.

Data Collection

In order to accomplish this, a selection of non-native English speakers from English composition 1110 classes at the University of Toledo were used. As only a maximum of 16 students were eligible for each class, the data pool for observation could be no more than 32 students. The actual number of observed participants was 21 students,

as some declined observation and others were absent from the class. All participants were anonymous. Observation occurred once for each class. It is important to remember that all students were observed during a session in which they were given a task to accomplish (in this case, peer-review) and that assignment will also be considered in the discussion and implications of the study.

According to the observation chart, each observed peer group was assigned a random number which tracked which context the exchange occurred in. Numbers were generated by the researcher merely as a way to ensure that exchanges that occurred within different peer groups were accounted for as occurring in different peer groups. As an example, one peer group was labeled "41" – so every exchange that occurred within that peer-review group was logged under group 41 on the data collection tool. Further, each exchange was given a number (chronologically listed), and so the first instance of native language use was labeled #1 and so on. The communication was either labeled as occurring during (D) or after (A) the assignment, and the duration in seconds was calculated and held up against the entire duration of the peer-review session. Any notes taken that identified unique or interesting behaviors was written according to the exchange number. Individual participants were logged according to their gender and native language.

Figure 2.1 Example of Data Collection tool for observation.

<table>
<tr><td>Gender</td><td></td><td>Group</td><td></td><td></td></tr>
<tr><td>Native Language</td><td></td><td>Assignment Duration:</td><td></td><td></td></tr>
<tr><td>Start
Duration in Sec.
#
Number of the exchange. Each exchange has a # for tracking
D/A
During or after peer review.</td><td>
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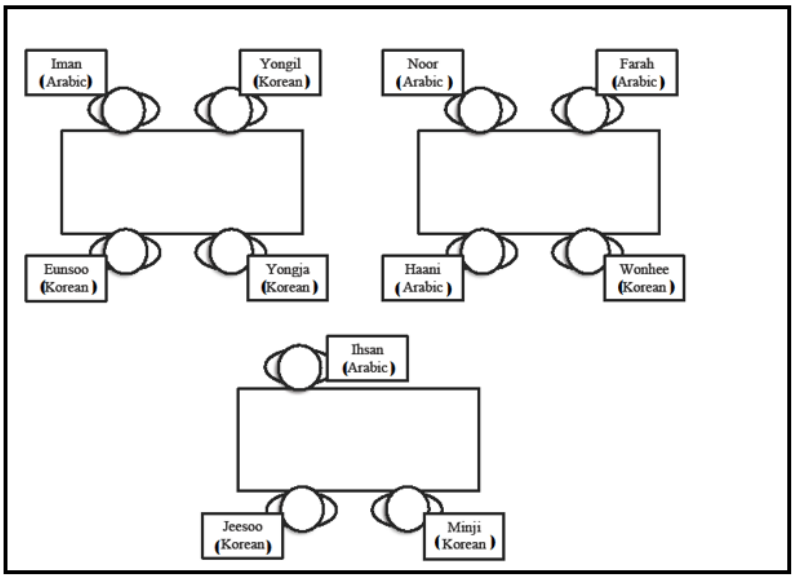
Alongside the observation, students were invited to participate in a survey. It was not required or even implied to be a significant part of the study. All students were given the survey following the observation to avoid them guessing what the observation was for. The survey included situations that might occur in an English learning environment between ESL speakers. Students who willingly participated were asked to respond “yes” or “no” about the appropriateness of using English within those situations. There were a total of 8 questions, each directly following one of the prompts. A seating chart was provided with the survey to give participants a visual layout of the classroom layout in which these invented situations occurred.

Figure 2.2 Seating Chart Provided in Survey (enlarged version available in Appendix B).



Each survey was also labeled according to the peer-review group number, and so participants from group 41 received the survey with the number of their group on the top to keep track of the attitudinal results that might play a role in communicative exchanges within that group.

Figure 2.3: Survey Sample.

#_____

In Mrs. Brown's English 1110 class, the students are given a task that they have to complete in 50 minutes. This task is a group activity. The students are responsible for writing a script that they will act out in front of the class. All students have to contribute to the script and all students will be acting out a part. Mrs. Brown splits the students into three groups. There are 11 students in the class. The groups are:

Group 1: Iman (Arabic), Yongil (Korean), Eunsoo (Korean), Yongja (Korean).

Group 2: Noor (Arabic), Farah (Arabic), Haani (Arabic), Wonhee (Korean).

Group 3: Ihsan (Arabic), Jeesoo (Korean), Minji (Korean).

Mrs. Brown puts the time on the clock and tells them to start.

Group 1 begins to work. Iman (Arabic) reads the instruction out loud. Eunsoo (Korean) does not understand some of the words. Eunsoo turns to Yongil. Eunsoo asks in Korean what the English word "screenwriting" means. Yongil explains in Korean that "screenwriting" means writing a script for a movie or a play.

- **Was it okay for Eunsoo and Yongil to speak Korean?** Yes | No

Although a typical time for completing a survey of this length is between 10 – 15 minutes for lower level English learners, students that filled out this survey did so following the class and all were turned in in less than ten minutes after distribution. There is the potential that students may not have been completely honest in their responses or further, that their participation in the observation didn't extend to their participation in the survey. Therefore, much of this research is dependent on the observations to discuss the implications of context and communicative exchange.

Participants

All students accepted to the English 1110 composition courses observed were invited to participate. Those who chose not to participate were not regarded for this study or used in the data pool. The instructors made sure that they were in a peer review group together to avoid having to cut them out of the data if their peer-review partners were to participate (which could potentially change the actual implications of the data collected). One class sessions for two separate English 1110 classes were used, and this provided a total of 21 students for data collection and 3 hours of observation time. There were a significant number of missing participants in the second peer-review session, and so the groups that were put together were of a significantly different make up then that of the first observed session (as far as grouping together speakers of the same language, etc.) Students remained anonymous and were counted in group number, gender and native language only. There were no unique personal identifying factors used in the study. References to speech patterns are done by the exchange number or the group number and following that, the gender and the native language of the participant.

Data Analysis

With the above tools, it is expected that patterns will occur between students in the communicative environment and that observing those will give a better understanding of the role the native language plays in the learning context. Following that, the goal is to also provide the attitudinal analysis as a way to gauge how a student sees their role in a communicative environment. If we know more about the exact properties at play when an exchange occurs, it will be much more likely that we can make predictions about learning patterns that may help in future research.

Chapter 3

Results and Discussion

The following is collected information from the two observational periods, beginning with the gender and NL of participant groups. Data is provided according to duration, gender and native language of the speakers, and all unique and interesting observations is also provided. The times calculated within the results are done so according to communication that occurs outside of the target method of communication (in this case, English). Any time English is used, it's not calculated in the conversation time. Table 3.1 is a sample of the raw data.

Table 3.1 Raw Data Sample

<table>
<tr><td>Gender</td><td>Male</td><td>Group</td><td>98</td><td></td></tr>
<tr><td>Native Language</td><td>Arabic</td><td>Assignment Duration</td><td>11:17-11:58</td><td>Notes:</td></tr>
<tr><td>Start
Duration in Sec.
#
Number of exchange. Each exchange has a # for tracking.
D/A
During or after peer review.</td><td>
<table>
<tr><th>Start</th><th>#</th><th>D/A</th></tr>
<tr><td>70</td><td>2</td><td>D</td></tr>
<tr><td>79</td><td>6</td><td>D</td></tr>
<tr><td>60</td><td>8</td><td>D</td></tr>
<tr><td>15</td><td>10</td><td>D</td></tr>
<tr><td>180</td><td>13</td><td>D</td></tr>
<tr><td>22</td><td>15</td><td>D</td></tr>
<tr><td>20</td><td>16</td><td>D</td></tr>
<tr><td>78</td><td>17</td><td>D</td></tr>
</table>
</td><td>
<table>
<tr><th>Start</th><th>#</th><th>D/A</th></tr>
<tr><td>181</td><td>18</td><td>D</td></tr>
<tr><td>67</td><td>19</td><td>D</td></tr>
<tr><td>82</td><td>20</td><td>D</td></tr>
<tr><td>5</td><td>21</td><td>D</td></tr>
<tr><td>68</td><td>22</td><td>D</td></tr>
<tr><td>48</td><td>23</td><td>D</td></tr>
<tr><td>15</td><td>24</td><td>D</td></tr>
<tr><td>190</td><td>25</td><td>A</td></tr>
</table>
</td><td>#6: Switched to ENGL for 15 seconds and then switched back. Just them 2. No observable difference in environment.
#13: Seemingly social convo.</td><td>Two males seem to go back and forth between English and Arabic. When one speaks English the other does. Then they switch back.</td></tr>
</table>

The first thing observed is the gender of the participant. They are then assigned a group number according to their peer groups (this is to keep track of the environments the communication occurs in and who it occurs with). The native language observed is also provided. Assignment duration logs the exact time that the assignment started and the time that it ended. There is a section for field notes. A very large part of the research

depends on the duration chart which logs number of seconds the exchange occurs, the number of the communication (this is chronological and helps track which two is shorter within the peer review), and when the exchange occurred (during or after the assignment duration).

Results

Class 1 (Recorded Data). Class 1 began at 9:30 and ended at 10:41. The first observational period occurred for 71 minutes. Peer-review occurred for exactly 51 of those minutes (59 total with an 8 minute break in-between which occurred at 9:41). There were a total of 4 peer review groups, each with three students. Table 3.2 is a recording of gender and NL found within each group.

Table 3.2 Gender and NL of Groups in Class 1

Group 41	Male	Chinese
	Female	Chinese
	Female	Spanish
Group 32	Male	Arabic
	Male	Arabic
	Male	Chinese
Group 56	Male	Chinese
	Female	Arabic
	Male	Arabic
Group 72	Male	Arabic
	Male	Hindi

Groups 41 and 56 were at the front of the classroom, while groups 72 and 32 were at the back of the classroom. One teacher was circulating the classroom to offer help to the students while a teacher's assistant (not a student but another person in the graduate department training to teach) remained at the front of the room to ensure that any students who might need help were easily identified.

The classroom environment was fairly quiet. During peer-review, a large portion of the time was dedicated to reading through the paper silently, though many of the conversations that occurred in speech forms other than English were spoken reservedly and were sometimes difficult to pick up. Speakers of group 32 used Arabic to communicate the most, with a total of 13.2 minutes of speech during the assignment. At 10:27 (38 minutes of work time total accounting for the 8 minute break), their assignment was finished after which they spent the remainder of the free time discussing with each other in Arabic. The native Chinese speaker in the group did not participate in the conversation. Despite initial attempts to include the native Chinese speaker in the conversation, the two students used Arabic dominantly and code-switched with one another during English conversations with the Chinese speaker.

Following group 32, group 41 spoke the most with a total of 7.08 minutes of speech during the assignment. Their assignment formally finished at 10:32 (43 minutes of work time total) and the remaining 9 minutes were spent using Chinese. There was a Spanish speaker in their group and during the time that two of the three participants used Chinese, the Spanish speaker busied herself with another task and did not participate. Group 56 had a total of 5.31 minutes of speech in Arabic. Interestingly enough, during this time the teacher's assistant also spoke with the students of this group in Arabic (seemingly about the assignment). This is also the only group in which students code-switched to English in the presence of the native English instructor. Finally, in the last group (72) no conversations occurred in anything other than English within the group. However, one group participant who was in the vicinity of another Arabic speaker did approach the other student and speak for a very short period of time with them in Arabic.

In this learning environment, several things were observed. The first was student-teacher interaction in a communicative preference outside of the target communication. The second was the presence or absence of code-switching in the presence of the teacher. Finally, observation of group participation which was communicatively exclusive according to a specific method of communication was observed. Despite whether all participants could understand the communication, it still occurred if at least two of the participants could understand.

Class 2 (Recorded Data). Class began at 11:00 am. The second observational period occurred for 58 minutes. Peer review went for 41 minutes. The first 17 minutes of class were dedicated to conversation and peer review setup. This classroom environment produced a longer period of conversational material. Students were grouped according to seating. This alongside the actual attendance numbers lead to groups with many of the same native language speakers in them. There were a total of 3 peer-review groups, two of which had 3 students and one of which had 2 (initially three however the third group member left prior to the assignment). Table 3.3 is the gender and NL of participants per group.

Table 3.3 Gender and NL of Groups in Class 2.

Group 21	Male	Hindi
	Male	Hindi
	Male	Hindi
Group 98	Male	Arabic
	Male	Arabic
	Male	Arabic
Group 13	Female	Japanese
	Female	Vietnamese

Groups 21 and 13 were at the front of the classroom, directly in front of the teacher's desk. The teacher circulated a total of two times to check for any issues in

material and otherwise remained at the front of the classroom. Group 98 was in the back of the classroom. There was no teacher's assistant.

Group 98 had an overall conversation time in Arabic of 19.6 minutes. Their overall work time was 26 minutes (they started their assignment at 11:21 and finished at 11:47). The members of this group had a longer conversational period, however their conversations were code-switched between Arabic and English. Several times one participant would begin to use English (triggered seemingly by a word or phrase) and would then continue to communicate in English for an extended period of time. This was despite the location of teachers or other students and was seemingly spontaneous. The group was in open speech for the duration of the assignment, though only the Arabic has been calculated. Any remaining time was spent conversing in English. Group 21 had the second highest overall time with 6.1 minutes of conversation. This group worked for a total of 34 minutes, however were completely silent for 9 of them (a period dedicated to reading through the worksheet and a period that group 98 did not participate in). Group 13 spoke nothing but English.

Major Environmental Differences. Major differences between the environments include the number, location and native languages of the instructors, the number of similar native speakers per group, the number and locations of the groups and the assignment time allocation (so how much time was spent on the assignment between the two classes). The observations showed different behavioral patterns for students. These are the potentially relevant environmental factors that may have dictated the method of communication.

Survey Results. Students were invited to participate in a survey which would provide the data for the attitudinal analysis. Of the 21 total study participants, 6 agreed to take the survey following the observational period. Two of the six students from groups 21 and 41 marked that the native language was not appropriate in any of the scenarios (see Table 3.4). All answers were marked "no" to indicate inappropriate language use. One participant from group 21 marked "yes" for a total of 5 prompts. This indicated an attitude towards inclusive exchanges *during* the assignment, but exclusive exchanges *following* the assignment. A different participant from group 21 marked "yes" for 4 of the prompts. This indicated that the participant found the native language appropriate *following* the assignment or *during* the assignment as long as the discussion was task-oriented and translated to the target language afterwards. The native language was also marked as appropriate if an attempt to explain in the target language had already occurred. The final two participants were from group 13. One marked "yes" in two situations; when a group participant is acting as a bridge between a student who speaks a different native language then the majority in the group, and when an attempt at target language explanation for a term had already occurred. The other marked "yes" for only two responses, one being that the native language was appropriate if an attempt at target language explanation had already occurred, and another being that the native language was appropriate for task-based and surface level clarification of a word or phrase.

Table 3.4 Survey Coding

#	Q1 Clarification of 1 key term: " screen… " **Exclusive Korean**	Q2 Dialogue about key term: " Screen… " **Exclusive Korean**	Q3 Assign. Dialogue. **Exclusive Arabic**	Q4 Assign. Dialogue **Inclusive Arabic**	Q5 Assign. Dialogue **Inclusive Arabic**	Q6 Clarification of 1 key term **Inclusive English Korean**	Q7 Social Exclusive **Korean**	Q8 Social Exclusive **Arabic**
21	N	Y	N	N	N	Y	Y	Y
21	N	N	N	N	N	N	N	N
21	N	N	N	Y	Y	Y	Y	Y
41	N	N	N	N	N	N	N	N
13	Y	N	N	N	N	Y	N	N
13	N	N	N	Y	N	Y	N	N

Notable Observations. The first interesting observation worth mentioning occurred in group 98. Not only did this group have the longest running time for conversation, they also had the most interesting approach to speech. Despite their surroundings (no matter the location of the teacher or peers), the students didn't speak exclusively in Arabic. They code-switched between English and Arabic without a specific need to. As it became clear that three of them were fully capable of understanding one another in either language, the assumption is that the students might choose their native language as the primary communicative effort, however in many cases it took merely a word or a phrase for them to completely switch the conversation over to English. Once one had changed their manner of speaking, another would quickly follow suit and adopt that communicative method (see Table 3.5).

Table 3.5 Group 98 observational report.

<table>
<tr><td>Gender</td><td>Male</td><td>Group</td><td>98</td><td></td></tr>
<tr><td>Native Language</td><td>Arabic</td><td>Assignment
Duration</td><td>11:17-11:58</td><td>Notes:</td></tr>
<tr><td>Start
Duration in Sec.
#
Number of exchange. Each exchange has a # for tracking.
D/A
During or after peer review.</td><td>
<table>
<tr><th>Start</th><th>#</th><th>D/A</th></tr>
<tr><td>70</td><td>2</td><td>D</td></tr>
<tr><td>79</td><td>6</td><td>D</td></tr>
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<tr><td>15</td><td>10</td><td>D</td></tr>
<tr><td>180</td><td>13</td><td>D</td></tr>
<tr><td>22</td><td>15</td><td>D</td></tr>
<tr><td>20</td><td>16</td><td>D</td></tr>
<tr><td>78</td><td>17</td><td>D</td></tr>
</table>
</td><td>
<table>
<tr><th>Start</th><th>#</th><th>D/A</th></tr>
<tr><td>181</td><td>18</td><td>D</td></tr>
<tr><td>67</td><td>19</td><td>D</td></tr>
<tr><td>82</td><td>20</td><td>D</td></tr>
<tr><td>5</td><td>21</td><td>D</td></tr>
<tr><td>68</td><td>22</td><td>D</td></tr>
<tr><td>48</td><td>23</td><td>D</td></tr>
<tr><td>15</td><td>24</td><td>D</td></tr>
<tr><td>190</td><td>25</td><td>A</td></tr>
</table>
</td><td>#6: Switched to ENGL for 15 seconds and then switched back. Just them 2. No observable difference in environment.
#13: Seemingly social convo.</td><td>Two males seem to go back and forth between English and Arabic. When one speaks English the other does. Then they switch back.</td></tr>
<tr><td>Gender</td><td>Male</td><td>Group</td><td>98</td><td></td></tr>
<tr><td>Native Language</td><td>Arabic</td><td>Assignment
Duration</td><td>11:17-11:58</td><td>Notes:</td></tr>
<tr><td>Start
Duration in Sec.
#
Number of exchange. Each exchange has a # for tracking.
D/A
During or after peer review.</td><td>
<table>
<tr><th>Start</th><th>#</th><th>D/A</th></tr>
<tr><td>70</td><td>2</td><td>D</td></tr>
<tr><td>30</td><td>3</td><td>D</td></tr>
<tr><td>79</td><td>6</td><td>D</td></tr>
<tr><td>60</td><td>8</td><td>D</td></tr>
<tr><td>84</td><td>9</td><td>D</td></tr>
<tr><td>180</td><td>13</td><td>D</td></tr>
<tr><td>72</td><td>15</td><td>D</td></tr>
</table>
</td><td>
<table>
<tr><th>Start</th><th>#</th><th>D/A</th></tr>
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<tr><td>78</td><td>17</td><td>D</td></tr>
<tr><td>82</td><td>20</td><td>D</td></tr>
<tr><td>68</td><td>22</td><td>D</td></tr>
<tr><td>48</td><td>23</td><td>D</td></tr>
<tr><td>15</td><td>24</td><td>D</td></tr>
<tr><td>190</td><td>25</td><td>D</td></tr>
</table>
</td><td>#3: Called Instructor immediately after</td><td></td></tr>
<tr><td>Gender</td><td>Male</td><td>Group</td><td>98</td><td></td></tr>
<tr><td>Native Language</td><td>Arabic</td><td>Assignment
Duration</td><td>11:17-11:58</td><td>Notes:</td></tr>
<tr><td>Start
Duration in Sec.
#
Number of exchange. Each exchange has a # for tracking.
D/A
During or after peer review.</td><td>
<table>
<tr><th>Start</th><th>#</th><th>D/A</th></tr>
<tr><td>84</td><td>9</td><td>D</td></tr>
<tr><td>72</td><td>15</td><td>D</td></tr>
<tr><td>20</td><td>16</td><td>D</td></tr>
<tr><td>78</td><td>17</td><td>D</td></tr>
<tr><td>181</td><td>18</td><td>D</td></tr>
<tr><td>67</td><td>19</td><td>D</td></tr>
<tr><td>82</td><td>20</td><td>D</td></tr>
</table>
</td><td>
<table>
<tr><th>Start</th><th>#</th><th>D/A</th></tr>
<tr><td>5</td><td>21</td><td>D</td></tr>
<tr><td>68</td><td>22</td><td>D</td></tr>
<tr><td>48</td><td>23</td><td>D</td></tr>
<tr><td></td><td></td><td></td></tr>
<tr><td></td><td></td><td></td></tr>
<tr><td></td><td></td><td></td></tr>
<tr><td></td><td></td><td></td></tr>
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</td><td></td><td></td></tr>
</table>

This is as opposed to group 56 (see Table 3.6) in which the participants switched to English in the presence of the instructor (Native English speaking). With the teacher's assistant, a native Arabic speaker, they were willing to use Arabic for help with an assignment, but in the *presence* of the teacher (not necessarily requesting help of them) who speaks English they almost certainly communicated in something they assumed the instructor could understand.

A second notable occurrence during the observation was limited to Class 1. A particular fascination of this study was the idea of unanimity within a communicative exchange. In a group like 32 and 41 where only 1 participant was unable to communicate in a certain manner, the question was how the other two reacted as far as inclusivity goes. In a group of 3 where 2 participants speak the same native language, 66% of the group is that native language. Are they willing to translate, make the peer more comfortable, put in effort to ensure that they are participating in the exchange, or do they stick to themselves and use this communication in spite of their third groupmate? Both groups behaved differently. Group 41 did not make an effort to include the native Spanish speaker whereas group 32 made an attempt to include the native Chinese speaker, but quickly left the attempt behind once the assignment began. Following the initial exchange in which the two Arabic speakers made a joke about "coke" and the Chinese student nodded, they conversed only about the assignment and following the assignment, continued to speak in Arabic. In exchanges with the Chinese student, both Arabic speakers went back and forth between Arabic and English even while speaking with the Chinese speaker.

Finally, following the assignment, there were two groups (Group 72, 56) in which members turned to talk to others who spoke their native language *following* the assignment. This occurred apart from the peer review group they'd been with for the duration of the assignment. Many other students spoke their native language with those in their groups following the assignment (Groups 41, 32, 21, and 98). In these groups, speakers of the native language ranged from 66% of the group to 100% of the group.

Discussion and Implication of Results

The observational period provided a few differences worth discussing. As the goal of this study is to discuss communicative habits, attitudinal analysis of those habits, and the actual environments that those habits occur in, the following is a breakdown of those three points according to the provided data.

The first habits observed were expected. The assumption that preceded this study was that having a group of students with a makeup of 50% or more with the same NL would likely determine both the duration and frequency of its use. Though this study did not code specifically for frequency, duration was provided and gave insight into the frequency of NL use in groups where the Native Speakers of a language made up between 50-100% of the group. Despite initially thinking that speakers of a specific language would aim to include a person unable to understand that communicative method, what occurred was that students did not extend any additional effort to ensure that their third groupmate was understanding their discussion. This occurred in groups where 66-75% of the group shared a NL (3/4 or 2/3). Naturally, in groups where at least 50% do not share a common language, (either 2/3 or ½) there is no way to communicate in anything other than English, and so native language use did not occur.

One interesting thing to note was that duration was not seemingly tied to the degree of unanimity within groups. This is observed in group 56. Two members spoke exclusively in Arabic despite having a native Chinese speaker present. It could be argued that the content of the conversation (social, academic) played a role in the peer-review session and inclusion of the third member, but what's interesting about this specific group is that in one instance, the teacher is called to help the students with peer-review and the exchange that occurs following their calling her to them is done in Arabic and in the presence of the third member (see Table 3.6). As we can assume that the third member was not aware of the question that the two were posing because of the preceding conversation being in Arabic, he was also unable to contribute to the solution or hear the solution from the teacher. Though one might assume that task-oriented discourse plays a large role in the chosen communicative method, in this case it provided mixed results.

Table 3.6 Data Sample of Group 56 Exchange

<table>
<tr><td>Gender</td><td>Female</td><td>Group</td><td>56</td><td></td></tr>
<tr><td>Native Language</td><td>Arabic</td><td>Assignment Duration</td><td>9:41-10:40</td><td>Notes:</td></tr>
<tr><td>Start
Duration in Sec.
#
Number of exchange. Each exchange has a # for tracking.
D/A
During or after peer review.</td><td>
<table>
<tr><th>Start</th><th>#</th><th>D/A</th></tr>
<tr><td>07</td><td>6</td><td>D</td></tr>
<tr><td>12</td><td>10</td><td>D</td></tr>
<tr><td>06</td><td>11</td><td>D</td></tr>
<tr><td>68</td><td>18</td><td>D</td></tr>
<tr><td>05</td><td>19</td><td>D</td></tr>
<tr><td>21</td><td>20</td><td>D</td></tr>
<tr><td>9</td><td>21</td><td>D</td></tr>
<tr><td>11</td><td>22</td><td>D</td></tr>
</table>
</td><td>
<table>
<tr><th>Start</th><th>#</th><th>D/A</th></tr>
<tr><td>15</td><td>24</td><td>D</td></tr>
<tr><td>17</td><td>25</td><td>D</td></tr>
<tr><td>27</td><td>26</td><td>D</td></tr>
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<tr><td>15</td><td>31</td><td>D</td></tr>
<tr><td>37</td><td>33</td><td>D</td></tr>
<tr><td>65</td><td>39</td><td>A</td></tr>
</table>
</td><td>#22: Instructor spoke in Arabic with the two students. The Chinese student was present but not paying attention.</td><td></td></tr>
</table>

There are some suggestive themes present that were both expected and observed which I've come to define as follows. The first one is that when the majority of a group has something in common, they will use that thread to connect with one another (this is what many call *ingroups, outgroups* and *belongingness*). This manifests itself in

communication habits. Speaking a certain way certainly ties in with that. The second is that people will take the simplest route if it's available to them (this is something referred to as the *Principle of Least Effort*). Despite speaking English, having a NL in common that will occur more quickly and will allow a wider range of communication means that it's likely to be utilized (when not strictly prohibited). These two reasons are the suggested primary habitual and cognitive suggestions for why so many of the students were willing to communicate in their L1 (even when in the presence of a NNS of the chosen language). Though gender was looked at as a salient characteristic of the study, data and time constraints prevented any recognizable patterns,

The second point that should be addressed is the attitudinal analysis of those habits. These are notably subjective recollections and projections of a person's communicative experiences. It's not surprising to see a negative response to NL use, despite the fact that observations showed students acting otherwise in the classroom. Though there are many suggested reasons for why a student may be unwilling to admit to their own native language use habits (one being that they're possibly unaware of the frequency of their language use), it would be difficult to gauge why that disconnect exists from this study. From the limited sample size we can project that student response to and about communication is not always what occurs in the physical environment. It's important in future studies of this area to include attitudinal analysis, but to not use this analysis as a baseline for physical events or as a confirmation of actual communicative patterns. With a larger sample size, it might be easier to assess how gender, number of participants, speech used, and etc. might play a vital role in people's attitudinal reflection.

Finally, the physical environment played a vital role in the outcome of this study. The biggest differences within the learning environment stemmed from the location, number and native languages of the teachers. For class 1, there were two teachers. While one teacher remained static at the front of the room, the other teacher was free to circulate to explain the assignment. Further, the static teacher was a NNS of English and a native Arabic speaker. As with any student, teacher presence will alter the communication occurring. Students spoke significantly less in the presence of the teacher, and for those who were using task-oriented dialogue, they switched to English in the presence of the native English speaking professor. In class 2, the teacher spent much of the time at the front of the class and allowed the students to approach with questions, circulating only once and doing so within the last 10 minutes of the peer-review session. Group 98 spoke significantly more than other groups (including class 1), and this is an expected result. When there is less supervision, one can expect students to be more relaxed. Class 1 had more students, more peer review groups, and more teachers, and so they had an overall higher time of communication. They still had unexpectedly high rates of conversation despite the additional teacher. Another environmental factor worth considering was the time limit for the actual assignment. Class 1 had an additional 10 minutes of work time. In theory, this should prompt more native language use for Class 2 because of time constraints, but having a limited amount of time actually negatively affected the frequency and duration of NL because of the silent periods the students adopted to complete the work before the deadline.

This study has provided data for communicative studies. There were a surprising number of exchanges which did not fit the assumptions preceding the study. Essentially

this has managed to reinforce the idea of communication over a focus on language. Having so many results which are unique in their own presentation merely suggests that context is crucial for understanding communication, and relying on student views is important for certain areas but certainly won't work as a baseline for communicative research.

Limitations and Future Research

One large limitation of this study includes the sample size. Peer review groups were only gathered from two classes for the duration of one session, there were a limited amount of participants for observation and an even more limited amount of students who agreed to participate in the survey. Another point to address is that in this study, there is no way to say for certainty the content of the exchanges, just as there is no way to know that the third participant is unaware of or incapable of speaking the language used between the two other participants. That they're incapable is a very highly educated guess. As an example, for group 41, the assumption naturally fell that the Spanish speaker was incapable of understanding Chinese, or being able to speak it. As mentioned above, there is a significant difference between the observed habits and the attitudinal analysis results. Exploring that on a larger scale is crucial to understanding where the disconnect is occurring, and why students respond one way when asked about the speech habits and then act another within a specific environment.

Future research in this area might look at the way that students choose to present their attitudinal reflections. As there is the possibility that what students think is not what they are willing to put down in writing, researchers might find a better way to get more honest feedback from those participating in the studies. Research in this area might consider

moving on with trying to solidify the contexts in which the NL occurs and why that is the case. There are still a plethora of variables that weren't accounted for, and there is still the potential for a lot of research when it comes to NL use.

Finally, as mentioned research has the capability of extending our knowledge about the roles of gender within groups. Despite the time and data constraints of this particular study, future research can prioritize looking at the differences between gender roles and peer groups and can then include how important gender is to a specific exchange occurring. If we build on what we already know and expand our research to larger groups, patterns may become more clear, and scatter of the data may become less likely giving a clearer picture of both attitudes towards (as well as use of) the Native Language.

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Appendix A

Raw Observation Data

Class 1

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Duration in Sec.
#
Number of exchange. Each exchange has a # for tracking.
D/A
During or after peer review.</td><td>
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</td><td>*Spoke only English following the assignment. Did not speak with group otherwise.</td><td></td></tr>
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#17: Code-switched to English mid conversation. Instructor was present.</td><td>#29, 30: Seemingly social discussion.

#32: Spoke to Chinese student in English for 03 seconds.</td></tr>
<tr><td>Gender</td><td>Male</td><td>Group</td><td>32</td><td></td></tr>
<tr><td>Native Language</td><td>Arabic</td><td>Assignment Duration</td><td>9:41-10:27</td><td>Notes:</td></tr>
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#1, 2, 4: Spoke with Chinese student in English throughout the conversation. Code-switched to Arabic mid-conversation.</td><td></td></tr>
<tr><td>Gender</td><td>Male</td><td>Group</td><td>32</td><td></td></tr>
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*Notably quiet. Though group members joked with him in beginning, all other encounters were in Arabic.</td><td></td></tr>
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<tr><td>Gender</td><td>Female</td><td>Group</td><td>56</td><td></td></tr>
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<tr><td>Gender</td><td>Male</td><td>Group</td><td>56</td><td></td></tr>
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*Beside two other Chinese speakers in the class, did not speak Chinese or join in any conversations.</td><td></td></tr>
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Gender	Male	Group	72	

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<tr><td>Gender</td><td>Male</td><td>Group</td><td>72</td><td></td></tr>
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Class 02

Gender	Male	Group	21	
Native Language	Hindi	Assignment Duration	11:17-11:43	Notes:

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Quiet Period. Nobody was talking.</td>
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<tr><td>26</td><td>21</td><td>D</td></tr>
<tr><td>40</td><td>26</td><td>A</td></tr>
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<tr><th>Start</th><th>#</th><th>D/A</th></tr>
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</td>
<td>#4: Group Conversation
#9: Danni present, still Hindi.</td>
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</tr>
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Gender	Male	Group	98	
Native Language	Arabic	Assignment Duration	11:17-11:58	Notes:

<table>
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Duration in Sec.
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Number of exchange. Each exchange has a # for tracking.
D/A
During or after peer review.</td>
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<tr><td>79</td><td>6</td><td>D</td></tr>
<tr><td>60</td><td>8</td><td>D</td></tr>
<tr><td>15</td><td>10</td><td>D</td></tr>
<tr><td>180</td><td>13</td><td>D</td></tr>
<tr><td>22</td><td>15</td><td>D</td></tr>
<tr><td>20</td><td>16</td><td>D</td></tr>
<tr><td>78</td><td>17</td><td>D</td></tr>
</table>
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<table>
<tr><th>Start</th><th>#</th><th>D/A</th></tr>
<tr><td>181</td><td>18</td><td>D</td></tr>
<tr><td>67</td><td>19</td><td>D</td></tr>
<tr><td>82</td><td>20</td><td>D</td></tr>
<tr><td>5</td><td>21</td><td>D</td></tr>
<tr><td>68</td><td>22</td><td>D</td></tr>
<tr><td>48</td><td>23</td><td>D</td></tr>
<tr><td>15</td><td>24</td><td>D</td></tr>
<tr><td>190</td><td>25</td><td>A</td></tr>
</table>
</td>
<td>#6: Switched to ENGL for 15 seconds and then switched back. Just them 2. No observable difference in environment.
#13: Seemingly social convo.</td>
<td>Two males seem to go back and forth between English and Arabic. When one speaks English the other does. Then they switch back.</td>
</tr>
<tr><td>Gender</td><td>Male</td><td>Group</td><td>98</td><td></td></tr>
<tr><td>Native Language</td><td>Arabic</td><td>Assignment Duration</td><td>11:17-11:58</td><td>Notes:</td></tr>
<tr>
<td>Start
Duration in Sec.
#
Number of exchange. Each exchange has a # for tracking.
D/A
During or after peer review.</td>
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<tr><td>60</td><td>8</td><td>D</td></tr>
<tr><td>84</td><td>9</td><td>D</td></tr>
<tr><td>180</td><td>13</td><td>D</td></tr>
<tr><td>72</td><td>15</td><td>D</td></tr>
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<td>
<table>
<tr><th>Start</th><th>#</th><th>D/A</th></tr>
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<tr><td>82</td><td>20</td><td>D</td></tr>
<tr><td>68</td><td>22</td><td>D</td></tr>
<tr><td>48</td><td>23</td><td>D</td></tr>
<tr><td>15</td><td>24</td><td>D</td></tr>
<tr><td>190</td><td>25</td><td>D</td></tr>
</table>
</td>
<td>#3: Called Instructor immediately after</td>
<td></td>
</tr>
<tr><td>Gender</td><td>Male</td><td>Group</td><td>98</td><td></td></tr>
<tr><td>Native Language</td><td>Arabic</td><td>Assignment Duration</td><td>11:17-11:58</td><td>Notes:</td></tr>
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Duration in Sec.
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D/A
During or after peer review.</td>
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Gender	Female	Group	13	
Native Language	Vietnamese	Assignment Duration	11:17-unclear	Notes:

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Duration in Sec.
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Number of exchange. Each exchange has a # for tracking.
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<tr><td>Gender</td><td>Female</td><td>Group</td><td>13</td><td></td></tr>
<tr><td>Native Language</td><td>Japanese</td><td>Assignment Duration</td><td>11:17-unclear</td><td>Notes:</td></tr>
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Duration in Sec.
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<tr><td>Gender</td><td>Male</td><td>Group</td><td>13</td><td></td></tr>
<tr><td>Native Language</td><td>Chinese</td><td>Assignment Duration</td><td>9:41-10:40</td><td>Notes:</td></tr>
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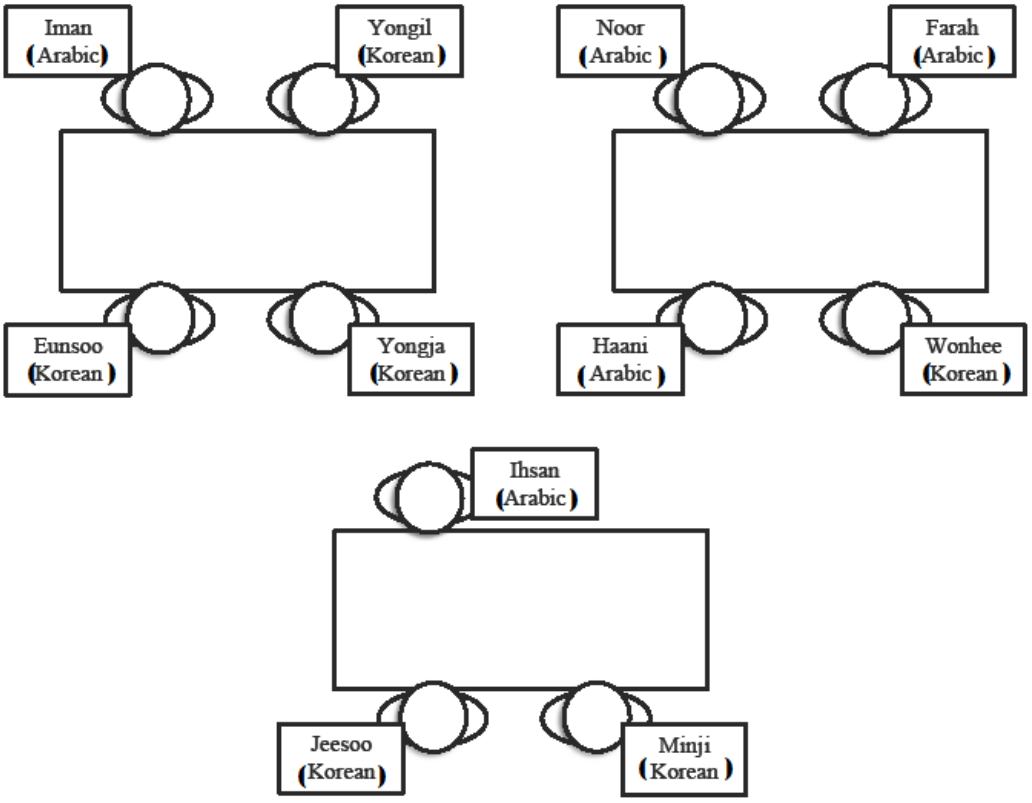
</table>

Appendix B

Survey



In Mrs. Brown's ENGL 1110 class, the students are given a task that they have to complete in 50 minutes. This task is a group activity. The students are responsible for writing a script that they will act out in front of the class. All students have to contribute to the script and al students will be acting out a part. Mrs. Brown splits the students into three groups. There are 11 students in the class. The groups are:

Group 1: Iman (Arabic), Yongil (Korean), Eunsoo (Korean), Yongja (Korean).
Group 2: Noor (Arabic), Farah (Arabic), Haani (Arabic), Wonhee (Korean).
Group 3: Ihsan (Arabic), Jeesoo (Korean), Minji (Korean).

Mrs. Brown puts the time on the clock and tells them to start.
Group 1 begins to work. Iman (Arabic) reads the instruction out loud. Eunsoo (Korean) does not understand some of the words. Eunsoo turns to Yongil. Eunsoo asks in Korean what the English word "screenwriting" means. Yongil explains in Korean that "screenwriting" means writing a script for a movie or a play.

- **Was it okay for Eunsoo and Yongil to speak Korean?** Yes | No

Eunsoo now knows what scriptwriting is. However, Eunsoo still does not understand that assignment. Eunsoo turns to Yongja (Korean). Eunsoo asks in Korean what they are supposed to do for the assignment. Yongja explains in Korean that they have to write their own script and act it out in front of the class. Yongil listens and agrees. Iman listens but cannot understand.

- **Was it okay for Eunsoo and Yongja to speak Korean?** Yes | No

Group 2 begins to work. Noor (Arabic) and Farah (Arabic) begin to discuss the assignment in Arabic. Noor turns to Farah. In Arabic, Noor mentions that she has a good idea for the assignment. Farah responds in Arabic that she would like to hear what it is. Wonhee (Korean) listens but cannot understand.

- **Was it okay for Noor and Farah to speak in Arabic?** Yes | No

Haani (Arabic) listens to Noor (Arabic) and Farah (Arabic). She can understand them. In Arabic, she responds to both of them. She asks them if they'd like to start with an open discussion about the assignment. Noor and Farah agree. Haani explains to Wonhee what they said.

- **Was it okay for Haani to speak Arabic?** Yes | No
- **Was it okay for Noor and Farah to speak Arabic?** Yes | No

Group 3 begins to work. Ihsan (Arabic), Jeesoo (Korean) and Minji (Korean) work together. The three of them discuss the assignment in English. Jeesoo becomes confused. Jeesoo asks Ihsan in English what "scriptwriting" means. Ihsan responds in English "I don't know". Jeesoo asks Minji in Korean what "scriptwriting" means. Minji explains in Korean that it is writing a script or a movie for a play.

- **Was it okay for Jeesoo and Minji to speak in Korean?** Yes | No

Group 3 finishes their work quickly. They notice that the rest of the class is still working. Jeesoo and Minji talk to each other in Korean.

- **Was it okay for Jeesoo and Minji to speak in Korean?** Yes | No

Group 2 finishes after group 3. Noor (Arabic) and Farah (Arabic) talk with one another in Arabic about what they will do after school. Wonhee listens but cannot understand.

- **Was it okay for Noor and Farah to speak in Arabic?** Yes | No