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Second Language Learners' Recognition and Production of Conventional Expressions: The Role of Proficiency, Length of Stay, and Intensity of Interaction

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SECOND LANGUAGE LEARNERS' RECOGNITION AND PRODUCTION OF CONVENTIONAL EXPRESSIONS: THE ROLE OF PROFICIENCY, LENGTH OF STAY, AND INTENSITY OF INTERACTION

by

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Abstract

This paper explores second language (L2) learners' relationship with conventional expressions – a subset of pragmalinguistic competence – by investigating the effects that language proficiency, length of stay, and intensity of interaction have on both learner recognition and use of such expressions. This study replicates Bardovi-Harlig and Bastos' 2011 study with slight modifications, and consists of three tasks: an aural recognition task, oral production task, and a questionnaire. These tasks were completed by 50 L2 learners and 23 native speakers of American English. The aural recognition task included 60 conventional and modified expressions, and the oral production task consisted of 32 scenarios meant to elicit conventional expressions. The questionnaire measured various factors contributing to the intensity of L2 environmental interaction, and has been modified from the original study to include Internet and social media use. Three one-way ANOVA tests demonstrated a significant effect for L2 proficiency on production of conventional expressions, and a marginally significant effect on conventional expression recognition. Intensity of interaction demonstrated a significant influence only on the production of conventional expressions in initiating scenarios. Length of stay did not demonstrate significant effects on either recognition or production of conventional expressions.

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Chapter 1

Introduction

In the past several decades, there has been a groundswell of renewed interest within the field of second language (L2) acquisition as to the role that formulaic language plays in language comprehension and production. Formulaic language has been examined in several subfields of L2 acquisition, but is of particular import within the field of interlanguage pragmatics. Pragmatics as a discipline investigates how language is used to communicate and create meaning "within the confines of specific sociolinguistic contexts" (Garcia, 2004, p. 96). Achieving ›pragmatic competence in a speech community would entail having "the ability to produce meaning in a socially appropriate manner and to interpret meaning, implicitly or explicitly stated, according to contexts" (Taguchi, 2007, p. 314). Pragmatic competence is often concerned with the illocutionary force and form of an utterance (Garcia, 2004), and is considered by many researchers to be "a distinct, indispensable component" of larger communicative competence (Taguchi, 2007, p. 313).

Researchers in the field of interlanguage pragmatics have noted various differences between the pragmatic productions of native speakers and non-native speakers of English (Bouton, 1992, Kecskes, 2000, Garcia, 2004, Taguchi, 2007, Bardovi-Harlig & Bastos, 2011). Of particular concern to this study are such differences demonstrated in the domain of conventional expressions. Conventional expressions, such as *No thanks, That'd be great,* and *I'm just looking*, consist of strings of words which speakers within the same speech community utilize to complete social tasks (Bardovi-Harlig, 2009). These expressions are used predictably in certain contexts by native speakers. For example, native speakers uniformly respond to *Have a nice day!* with *You, too* – nearly without variation in either vocabulary or syntax (Bardovi-Harlig, 2011).

Native speakers not only have a repertoire of conventional expressions for various contexts, but in fact appear to demonstrate acute preference for particular conventional expressions even within a similar speech act. A 2009 study done by Bardovi-Harlig showed that native speakers preferred to use different conventional expressions in different "thanking" scenarios. When thanking a professor for allowing a make-up test, 80% of undergraduates produced the expression *Thank you so much*, whereas thanking a professor for assistance during office hours overwhelming elicited the expression *Thank you for your help/time*. This nearly uniform preference for particular conventional expressions in similar thanking situations clearly demonstrates that native speakers deftly and precisely use conventional expressions according to situational context.

Non-native speakers often do not exhibit the same level of precision with L2 conventional expression use. Although high-proficiency non-native speakers of English normally understand the type of speech act required in a given social context (Bardovi-Harlig, 2014), their utterances frequently fall short of demonstrating *nativelike selection*, which Pawley and Syder (1983) define as the ability to identify and utilize preferred conventional expressions from among a range of grammatically correct paraphrases or similar expressions. For example, in the same 2009 study conducted by Bardovi-Harlig, native and non-native speakers of English responded to the following scenario:

> *You and a friend are about to cross the street when you see the campus bus coming. Your friend does not see the bus and is about to step in front of it.*

Native speakers responded overwhelmingly to this scenario by producing the conventional expression *Watch out!* Conversely, only 44% of advanced-low non-native speakers produced this preferred utterance.

The current study will explore formulaic language generally, and conventional expressions particularly, in the literature review by examining various definitions, classifications, and mediating factors in L2 pragmatic awareness of non-native speakers. I will explore formulaic language's theoretical relationship to grammar, how sociopragmatics and pragmalinguistics relate to pragmatics, various sub-classifications of conventional expressions, and mediating factors of L2 pragmatic proficiency, including general L2 language proficiency, length of exposure to L2 environment, and intensity of interaction with L2 environment.

The pilot study, a near replication of Bardovi-Harlig and Bastos' 2011 study, will then closely examine the roles that L2 general proficiency, time spent abroad, and level of interactional "intensity" with English play in non-native speakers' comprehension and use of conventional expressions. Non-native speakers across various proficiency levels of English who attend an intensive English program at a large four-year university in the Midwest of the United States completed two computer-delivered tasks, as did a small group of native English speakers. The tasks include an aural recognition task and an oral production task. The aural recognition task consisted of 60 conventional and modified expressions, as determined through Bardovi-Harlig and Bastos' extensive piloting. The production task included 32 scenarios which have been shown to elicit various speech acts (including gratitude, apologies, warnings, requests, and introductions, among others) (Bardovi-Harlig, 2009). Finally, a background questionnaire asked participants to self-report length of stay in L2 environment and five "intensity" variables. Three of these variables (time spent talking to native speakers, time spent talking to other students in English, time spent watching television or movies in English) replicate those of the original Bardovi-Harlig and Bastos study. I will add two further "intensity" measures, as suggested by the

authors in the original study as a possible area of expansion: time spent using the Internet and social media in English.

My study seeks to explain some of the variance demonstrated in previous studies regarding possible mediators of L2 pragmatic competence. As such, my research questions are as follows:

What effects do proficiency, length of stay, and intensity of L2 interaction have on the acquisition of conventional expressions

a. *as measured by participants' recognition of conventional expressions?*
b. *as measured by participants' production of conventional expressions?*

Following Bardovi-Harlig and Bastos' 2011 study, I hypothesize that recognition of conventional expressions will show effects for the influence of interactional intensity, and that production of conventional expressions will show effects for both proficiency and intensity of interaction with L2 environment. I do not expect length of stay to have an effect on either recognition or production of conventional expressions once proficiency and interactional intensity are controlled for.

Chapter 2

Literature Review

Formulaic Language Defined

Conventional expressions, according to certain classification systems, are one particular subtype within the broad umbrella term "formulaic language." In the past decade, there has been a surge of renewed interest in the theoretical underpinnings, social functions, creation and production of formulaic language from researchers in assorted fields (including applied linguistics, semiotics, pragmalinguistics, sociolinguistics, and second-language acquisition). Being that the phenomenon is studied across so many fields, it is not surprising that "formulaic language" is known by many names; in one study, researchers compiled a list of over 40 different terms used to reference one or more type or subtype of formulaic language, including *chunks, collocations, composites, fixed expressions, formulas, frozen phrases, gambits, idioms, multiword units, ready-made expressions, rote, schemata,* and *unanalyzed chunks of speech* (Wray & Perkins, 1999).

It is doubtful that all of the aforementioned terms refer to precisely the same phenomena. Rather, it appears that there are "genuinely deep-seated and significant differences" between terms, and that each term's definition varies somewhat idiosyncratically between scholars and fields (Wray & Perkins, 1999, p. 3). The term *formula,* for example, is particularly problematic, given that it has been used in the L2 acquisition literature to refer both to native speaker social formulas and the grammatical acquisitional formulas of non-native speakers (Bardovi-Harlig, 2009). Wray and Perkins attribute the difference in term usage, and the subsequent confusion about said terms, to "the tolerance of terminological variation on the one hand, and, on the other,

the indiscriminant appropriation of certain favored terms across data types" (Wray and Perkins, 1999, p. 3).

How, then, shall we define "formulaic language"? Perhaps one of the most simple and accessible definitions is one proposed by Wray and Perkins, which defines *formulaic language* as:

> a sequence, continuous or discontinuous, of words or other meaning elements, which is, or appears to be, prefabricated: that is, stored and retrieved whole from memory at the time of use, rather than being subject to generation or analysis by the language grammar. (Wray & Perkins, 1999, p. 1)

The "prefabricated" nature of formulaic language appears to be at the core of the phenomenon, and is included in descriptions across various scholars and fields. This is most certainly due to the fact that descriptive grammar researchers have found that, contrary to the notion of spontaneously-created utterances as postulated by generative grammar, native speakers' language use appears to be ritualized "to a large extent," and that "routines as memorized stretches do indeed form a high proportion of the fluent stretches of adult native speakers' everyday conversations" (House, 1996, p. 226). Precisely how much of our everyday conversation is formulaic? Estimates vary, but some researchers posit that as much as 70% of native adult language is composed of the aforementioned ritualized, prefabricated sequences (Wray & Perkins, 1999).

Formulaic Language Uses and Relation to Grammar

Researchers studying formulaic language within the field of pragmatics often cite differences between speakers' processing and use of formulaic language and that of their grammar. Indeed, many researchers conclude that pragmatic awareness – that is, knowing not

only what to say, but precisely how to say it using *nativelike selection*—"has been found to occupy a unique place in language ability in that it develops independently from grammatical awareness" (Garcia, 2004, p. 98).

There is some evidence to support such a conclusion. Bardovi-Harlig and Dörnyei conducted a study in 1998 examining the pragmatic and grammatical awareness of students of English as a Foreign Language (EFL) and English as a Second Language (ESL). These students watched footage of 20 different scenarios, wherein a female and male interacted in situations typical of a university student. Within each scenario was a target utterance, which was marked on the screen and appeared on the answer sheet. Participants were asked to rate these utterances in terms of accuracy (a grammatical construct) and appropriateness (a pragmatic construct). If they identified an error of either type, the participants were then asked to rate the severity of the error. Results demonstrated that EFL students consistently identified more grammatical errors than pragmatic errors, and rated them as more severe. ESL students showed the opposite pattern, identifying more pragmatic errors and rating them as more severe. Proficiency, as is often the case, was shown to be a mediating factor, and will be discussed later in this paper. However, both this original study and further replication studies "strongly suggest that pragmatic and grammatical awareness are largely independent" – and, furthermore, that "their development may be associated with different learning environments in a rather complex fashion" (Kasper, 2001, p. 505).

It has also been shown that non-native speakers of English are often aware of how to appropriately use conventional expressions in context (a pragmatic feature) without being fully aware of their meaning (postulated as a grammatical feature). Bardovi-Harlig conducted a 2014 study in which non-native speakers completed an aural vocabulary knowledge scale (VKS) and

depth test modified for conventional expressions rather than single vocabulary items. The modified VKS asked participants for both a definition and an example of use for each expression. Her findings demonstrated that often learners were able to provide completely appropriate examples of use, but were unable to produce definitions for the expression (or provided implausible definitions). Bardovi-Harlig concludes that these findings suggest that "plausible meanings may not be part of the initial interlanguage representation for L2 conventional expressions…instead, the evidence suggests that learners gradually associate meanings with expressions" (Bardovi-Harlig, 2014, p. 55). In other words, pragmatic awareness of conventional expressions may develop prior to full grammatical awareness.

Still other studies suggest that formulaic language and grammar are not necessarily cognitively distinct, and may indeed interact and actively feed into one another. Myles, Hooper and Mitchell, in a 1998 study, investigated the role that formulaic language played in the later creative language capacity of L2 learners. They followed 16 foreign language L2 learners of French for two years, charting the development and use of specific language "patterns" with open slots (which they note as being a different form of formulaic language from an entirely "fixed" string): *j'aime* (I like), *j'adore* (I love), and *j'habite* (I live). They discovered strong evidence of "chunk breakdown"; over time, learners deconstructed these unanalyzed utterances and began to use them creatively in their generative grammar. This creative use seemed tied to the emergence of the subject pronoun system and the need to establish references outside of the formulaic construct. The study concludes that formulaic language appears to "facilitate entry into communication," and furthermore that these utterances provide material for the learner to analyze, contributing to "an emerging grammatical competence" (Myles, Hooper & Mitchell, 1998, p. 327).

Most researchers in the field of pragmatics appear to agree that although grammatical and pragmatic knowledge are "largely independent" constructs, these constructs coexist and interact in a learner's interlanguage and may have some influence on each other over time. Wray and Perkins, in their 1999 paper, attempted to define the role of each construct and then integrate their functions. Their model details a give-and-take between top-down and bottom-up processing. They begin with "the identification of two fundamental determiners, namely, the priorities of social interaction and the constraints of memory on our processing capabilities" (Wray & Perkins, 1999, p. 12). They postulate that although native speakers have the linguistic ability to generate novel expressions as a bottom-up process, this analytic method is more intensive and resource-dependent, which runs up against our limits for processing and short-term memory. Given the aforementioned largely ritualized nature of most of everyday conversation and social interaction, a formulaic, top-down method of processing consolidates cognitive resources. They go on to say that native speakers "use prefabricated sequences as a way of minimizing the effects of a mismatch between our potential linguistic capabilities and our actual short term memory capability" (Wray & Perkins, 1999, p. 15). In sum,

> In our model, the use of formulaic language is viewed as central to processing, but not to the exclusion of the full break-down and build-up of utterances from scratch as and when required...in this model, the focus is shifted, so that formulaicity characterizes the normal approach to processing, with analyticity on hand to pick up any difficulties…our grammatical capabilities are on hand for emergencies. (Wray & Perkins, 1999, p. 13)

There is certainly a robust debate in the fields of linguistics and cognition regarding the definition of and relationship between bottom-up and top-down processing, which will not be

resolved here. As such, some researchers in the field of interlanguage pragmatics decline to engage in the debate entirely by simply sidestepping the issue of processing. Bardovi-Harlig, in her 2009 study, made the choice to define her subject matter (conventional expressions) in terms of social use, "a definition that has no presuppositions about the eventual mental representation of these sequences for either native speakers or learners" (Bardovi-Harlig, 2009, p. 757). This current paper takes much the same approach, and will consider conventional expressions as a social and pragmatic phenomenon without speculating about their mental generation or storage. We will now examine the role that formulaic language plays in pragmatics and the related fields of pragmalinguistics and sociopragmatics.

Pragmatics, Sociopragmatics, Pragmalinguistics, and Conventional Expressions

As discussed above, there are numerous terms used in the literature to describe formulaic language, many of which (such as *formula)* are problematic because they carry with them presuppositions regarding their cognitive underpinnings. This paper, then, would like to specifically focus on *conventional expressions* as a subtype of formulaic language. As explained in the introduction, conventional expressions (*No thanks, That'd be great, I'm just looking*) consist of strings of words, predominantly in a spoken context, which speakers within the same speech community utilize to complete social tasks, and which are used predictably by native speakers (Bardovi-Harlig, 2009). As Bardovi-Harlig explains, "the terms *formula* and *conventional expression* may describe the same string of words, but the term *conventional expression* emphasizes the social aspect of use – namely, a speech community's preference for a particular string – and avoids the psycholinguistic claim regarding storage and retrieval" (Bardovi-Harlig, 2009, p. 757).

Conventional expressions are most frequently analyzed in the field of pragmatics, which, again as mentioned in the introduction, investigates how language is used to communicate and create meaning within specific sociolinguistic contexts (Garcia, 2004). Pragmatics can be further subdivided into several fields, the most prominent of which are sociopragmatics and pragmalinguistics (Waring, 2013). The two fields are certainly interrelated, but differ in their focus.

Sociopragmatics is concerned with, among other things, language socialization, which Ochs defines as, "the process whereby children and other novices are socialized through language, part of such socialization being a socialization to use language meaningfully, appropriately, and effectively" (Ochs, 1996, p. 408). Sociopragmatics emphasizes "socially appropriate use," which entails attention given to social distance, power relations, taboos, obligations, and other related phenomena (Roever, 2006, p. 230). Wray and Perkins add that socially appropriate use ensures that "the speaker gets what he/she wants and is perceived as an individual within the group" (Wray & Perkins, p. 18). The use of conventional expressions features prominently in asserting group membership because "they embody the societal knowledge that members of a given speech community share" (House, 1996, p. 226-7).

Pragmalinguistics, meanwhile, is concerned with the more linguistic functions and particulars of pragmatics, "especially linguistic strategies for implementing speech intentions and the linguistic items necessary to express these intentions…pragmalinguistic knowledge equips [users] with the tools for expressing themselves" (Roever, 2006, p. 230-231). Waring describes the development of pragmalinguistic ability as "learning to talk the talk, which involves understanding the talk in the first place" (Waring, 2013, p. 8). Thus, while sociopragmatics and pragmalinguistics may study similar phenomena, sociopragmatics "involves sociocultural norms

of what constitutes an appropriate response to routine inquiries such as 'How was your weekend?' and pragmalinguistics the specific language involved in executing such responses" (Waring, 2013, p. 4).

Researchers have noted that both types of knowledge (sociolinguistics and pragmalinguistics) are essential components for pragmatic success. However, these abilities do not necessarily go "hand-in-hand: learners can be more advanced in their sociopragmatics abilities than their pragmalinguistic ones or vice versa" (Roever, 2006, p. 231). Bardovi-Harlig has demonstrated in numerous studies that while non-native speakers may understand the type of speech act required in a situation (sociopragmatics), they may or may not have the corresponding correct conventional language to express their intent (pragmalinguistics) (Bardovi-Harlig, 2009).

Although most studies in pragmatics deal with both sociolinguistics and pragmalinguistics, the current study will attempt to focus mostly on the pragmalinguistics of conventional expressions. That is, while I will take into consideration illocutionary force and type of speech act, I will focus more on the actual language and expressions used, rather than the intent of the speech act, aspects of power and identity, or group membership.

Classifications of Conventional Expressions and Mediating Factors

While already a sub-classification of formulaic language, many researchers in pragmalinguistics have further deconstructed conventional expressions into various sub-types, including *speech acts*, *conversational implicatures*, and *situational routines* (Roever, 2006). *Speech acts*, the most commonly researched of the three, are classified by the type of illocutionary force, and can consist of requests, apologies, refusals, complaints, compliments, suggestions, offers, corrections, warnings, and introductions, to name a few. These conventional expressions tend to have "self-contained" meaning, and are well understood even without

accompanying context.

Implicatures, on the other hand, "require the hearer to use context or world knowledge to decode a message adequately" (Roever, 2006, p. 231). These can include conversational implicatures ("Why are you wet?" "I tried canoeing today."), formulaic implicatures ("Is the Pope Catholic?"), and indirect criticism that focuses on a minor aspect ("Was the movie good?" "Well, it was short, at least.").

Finally, *situational routines* are "situationally bound utterances which conventionally occur in specific contexts and whose meaning is disambiguated by the situational context" (for example: "It's for you," regarding a telephone call) (Roever, 2006, p. 231-232).

While it would be understandable to assume that these three sub-classifications for conventional expressions were simply invented by researchers, there is, in fact, evidence that these categories (*speech acts*, *implicatures*, and *situational routines)* are cognitively distinct. Roever, in his 2006 study, used a web-based test to analyze non-native speakers' scores on these three "subcomponents" of conventional expressions. He found that while scores on all three sections of the test correlated moderately with each other, this correlation was not uniform between all three subcomponents, and each subcomponent demonstrated unique variance. This was further confirmed by factor analysis and intersection correlation coefficients. Speech acts and implicatures demonstrated the strongest relationship, whereas speech acts and situational routines showed a slightly weaker relationship, and situational routines and implicatures had the weakest relationship. Roever concludes that the test accessed "a common pool of pragmalinguistic knowledge, while each section accessed somewhat different facets of that knowledge" (Roever, 2006, p. 244). He conjectured that perhaps the psycholinguistic processing and/or developmental pathway for each subcomponent is distinct.

Roever's study also demonstrated a fascinating interplay between type of conventional expression (*speech acts, implicatures*, and *situational routines)* and two mediating factors that have been much-studied in the field of L2 pragmatics: proficiency and exposure to L2 environment. Numerous other studies have demonstrated the effects that various mediating factors have on the comprehension and production of conventional expressions, including individual processing ability (Taguchi, 2007), illocutionary force of the speech act (Garcia, 2004), metapragmatic knowledge (House, 1996), and the linguistic features of the conventional expression itself (Garcia, 2004). It is becoming clear in the field that the comprehension and production of different subcomponents of conventional expressions (*speech acts*, *implicatures*, and *situational routines)* are affected differently by various mediating factors (processing ability, illocutionary force, metapragmatic knowledge, linguistic features). However, the two mediating factors that appear to have the largest impact on pragmatic competence (and consequently are the most-studied) are general L2 proficiency and exposure to L2 environment. We shall now consider each of these factors in turn.

The Effect of L2 Proficiency

The literature in the field has demonstrated that general L2 proficiency plays an intricate and nuanced role in non-native comprehension and production of conventional expressions. The majority of studies have confirmed that general L2 proficiency has a positive correlation with pragmatic comprehension. However, as the following studies show, this positive effect may affect certain aspects of pragmatic comprehension and not others, or may vary by type of speech act or conventional expression.

In the aforementioned Roever study (2006), 267 ESL and EFL learners of various degrees of proficiency took a 36-item web-based test of English pragmalinguistics. The test

contained sections measuring knowledge of implicatures and routines (tested via multiple choice) and speech acts (tested with discourse completion items). Results indicated, as mentioned earlier, that scores on the speech acts and implicatures sections were strongly correlated, with their overlap accounting for nearly half of each other's variance. Both of these sections (speech acts and implicatures) demonstrated that learners' scores increased with proficiency, and were largely independent of exposure to L2 environment. In contrast, knowledge of routines was shown to be mostly determined by exposure and largely independent of proficiency level. Thus Roever concludes that both proficiency and amount of L2 environment exposure (discussed below) differently affect different types of conventional expressions.

In an early (1992) study, Bouton investigated how non-native speaker interpretation of conversational implicature was affected over time without explicit instruction. Thirty ESL students took a battery of four tests, including structure, cloze, dictation, and implicature. The first three sections were meant to measure English proficiency generally, and were referred to as the English Proficiency Test (EPT). The implicature test involved short dialogues followed by multiple-choice interpretations of the implicature. These students were first tested in 1986, and then re-tested 4.5 years later in 1991. Bouton found that, even without explicit instruction, learner results on the implicature test improved significantly over 4.5 years, although they still fell below the levels of understanding of a native speaker. Interestingly, though, Bouton found that on both occasions (1986 and 1991) there was a lack of demonstrated correlation between participant scores on the EPT and the implicature portion of the test. Bouton concludes that "we can draw one definite conclusion: *we cannot measure a person's ability to interpret implicature by using a general proficiency test like the EPT*" (Bouton, 1992, p. 56 – emphasis in the original).

Barón and Celaya, in their 2010 study, took a different approach and focused on learner development of pragmatic fluency, as measured by response time, turn-taking, ability to introduce and change topics, and use of gambits, routines, and patterns. The study analyzed 144 EFL learners (Catalan-Spanish bilinguals) across various ages (10 – 17 years old) in their productions of open role-plays, wherein students had to ask for permission from an authority figure to host a birthday party. These students had never been explicitly instructed in pragmatics. Results of the study showed that pragmatic fluency did indeed develop as proficiency increased; more proficient students were capable of introducing and changing topics, used more gambits, routines and patterns (and used them more appropriately), and produced more appropriately-timed responses. Thus, Barón and Celaya demonstrated an across-the-board positive effect for general L2 proficiency, in contrast to Bouton's results.

Much later, Taguchi (2007) followed in Bouton's shoes and also examined the development of pragmatic comprehension of English by Japanese college students over time. Ninety-two Japanese students were tested via a computerized listening task on two types of implied meaning in dialogues (indirect refusals and indirect opinions). The students' scores were judged for accuracy and comprehension speed. The study also measured general L2 proficiency (using the ITP TOEFL) and speed of lexical judgment (using a word recognition task). Students took this assessment twice, once at the beginning of the semester, and once 7 weeks later. Although the students were receiving English instruction during those 7 weeks, there was no specific course teaching pragmatic comprehension. Results demonstrated that the students improved in both comprehension accuracy and speed over the 7-week period. Taguchi also found a significant relationship between L2 proficiency and accuracy. However, general L2 proficiency had no effect on comprehension speed, and furthermore accuracy and comprehension speed

scores were also unrelated. Taguchi believes the data suggest that L2 pragmatic comprehension is at least two-dimensional, involving separate constructs for accuracy and processing speed. The former may be affect by L2 proficiency, while the latter is not.

However, in a later study, Taguchi (2011) did find an effect for general L2 proficiency on response times. Taguchi tested the effect that both general L2 proficiency and study-abroad experience have on pragmatic comprehension in English, as operationalized by both accuracy and response times. Twenty-five native English speakers and 64 Japanese college students of English were divided into three groups according to proficiency (low, high) and study-abroad experience (none, 1 year), and completed a pragmatic listening test of implicatures. In contrast to her earlier study, the 2011 data demonstrated a significant effect of proficiency on response time, but no effect of study-abroad experience. Meanwhile, accuracy scores varied depending on the type of implicature (conventional or nonconventional). Both L2 general proficiency and experience in a host country significantly positively affected comprehension of nonconventional implicatures. In the case of conventional implicatures, however, only general proficiency (not study-abroad experience) affected accuracy.

In 2004, Garcia also investigated non-native speaker recognition of conversational implicatures (what he terms “nonconventional indirect speech acts”). Conversational implicatures, such as “Can you reach the salt?” contain two meanings: their literal interpretation and the speaker’s pragmatic intent. Garcia tested 56 participants grouped into three levels of English proficiency: native speaker, non-native speakers with high L2 ability, and non-native speakers with low L2 ability. Participants were tested aurally using a multiple-choice questionnaire to assess their understanding of requests, suggestions, corrections, and offers. Results demonstrated that proficiency had a significant effect on pragmatic comprehension

across the board. However, the data also revealed main effects for speech act type, with certain implicatures being uniformly easier to identify across proficiency groups. Requests tended to be the easiest to identify (with even the lowest group demonstrating 84% accuracy), with offers and corrections being the most difficult. The results also demonstrated clear linguistic factors affecting speech act recognition (reference to agent and recipient, false starts and hesitations, use of modals, and specific lexical markers). Thus, although the study concludes that the data support a link between advanced proficiency and high pragmatic awareness, it is clear that this main effect is further affected by related variables such as type of speech act and specific linguistic features.

Bardovi-Harlig, in her 2009 study, investigated L2 learners' recognition and production of conventional expressions across various levels of general L2 proficiency. Participants, including 122 non-native English speakers and 49 native speakers, completed an aural recognition task (with 60 expressions) and an oral production task (including 32 scenarios). Her results demonstrated that recognition clearly increased with proficiency level. The effect of proficiency on the production task, though, was more complicated and nuanced, and seemed to vary by individual expression, with only some expressions demonstrating increasing production and refinement (grammatical development, intensification or elaboration) across proficiency levels.

In a later study, Bardovi-Harlig and Bastos (2011) repeated the Bardovi-Harlig 2009 study, but this time further investigated the role that proficiency, length of stay in host environment, and "intensity of interaction" had on learners' ability to recognize and produce conventional expressions. Once again, 122 non-native English students and 49 native speakers were tested on the same aural recognition and oral production tasks. The data demonstrated that

length of stay in host environment and self-reported "intensity of interaction" scores seemed to be largely independent of proficiency. A repeated measures logistic regression model demonstrated that, contrary to the 2009 study, proficiency had no significant effect on recognition scores, but did have a significant effect on production. Further effects discovered for length of stay and interaction intensity will be discussed in the next section of this paper.

In summary, the demonstrated effect for L2 proficiency in pragmatics and conventional expressions is rather mixed across the literature. Taguchi summarized her literature review by stating that the studies she surveyed "have repeatedly found that high general proficiency supports quality pragmatic performance, but it does not guarantee a nativelike performance" (Taguchi, 2011, p. 906). It appears that general L2 proficiency is a bit of a mixed bag – although it may support certain specific aspects of pragmatic development and performance, it can clearly be mediated by other factors as well, including type of conventional expression, linguistic features of the conventional expression, type of measurement (accuracy vs. response time), amount of time in L2 environment, and "intensity" of L2 interaction. Having surveyed the effect that L2 proficiency has on pragmatic competence, we will now consider another important mediating factor: exposure and intensity of exposure to an L2 environment.

The Effect of Exposure to L2 Environment

Along with proficiency, amount and type of L2 environment exposure has been repeatedly found to play an important role in L2 pragmatic comprehension and production. This factor is known by many names, and is studied in various forms. Earlier studies of pragmatics involved immigrants or international students matriculated at English-language universities, and thus referred to "length of stay" or "length of residence." In the past decades, researchers have widened their scope to analyze the pragmatic comprehension of non-native speakers in L2

environments for shorter, non-permanent periods of time, and thus refer to length of study abroad or sojourn. Still other researchers investigate pragmatic development in an EFL context, thereby precluding L2 environmental exposure altogether.

Some of the studies mentioned in the earlier section on proficiency also explored issues related to length of L2 environment exposure. Bouton, in his 1992 study, found that ESL students enrolled at an American university showed significant improvement in implicature comprehension and interpretation over the course of 4.5 years, even without any explicit coursework in pragmatic comprehension. At the end of these 4.5 years, non-native ESL students approached native speaker understanding on 75% of the test items; however, the results achieved by non-native and native speakers on the test were still statistically dissimilar. Even after 4.5 years of exposure, non-native speakers still differed significantly from native speaker interpretation of implicature.

There is some contention within the field of pragmatics as to whether pragmatic comprehension and fluency can be developed in a classroom without "authentic" L2 environment exposure. This is frequently seen in the ESL versus EFL debate. There have been numerous studies, however, which have demonstrated increases in pragmatic development even within an EFL classroom environment. Barón and Celaya, in their aforementioned 2010 study, demonstrated an effect for amount of exposure on pragmatic fluency, even within an EFL setting. They analyzed 144 EFL learners (Catalan-Spanish bilinguals) across a wide range of ages (10-17 years old) in their production of open role-plays. Student performance was evaluated for pragmatic fluency as measured by response time, turn-taking, ability to introduce and change topics, and use of gambits, routines, and patterns. These students had never been explicitly instructed in pragmatics, nor been exposed to a "natural" L2 environment, yet still demonstrated

improvements in pragmatic fluency over time as their proficiency and amount of instruction time increased. In this study, however, amount of exposure to L2 was problematically tied to measures of proficiency, and not investigated as an independent variable.

Other studies have similarly found modest effects for even short periods of exposure to L2 – even if that exposure comes from the classroom rather than an "authentic" L2 environment. House, in her 1996 study, investigated advanced German learners of English over the course of a 14-week communication class. Using an experimental design, one version of the class provided explicit instruction and feedback on metapragmatic content, and the other did not. Student conversations were tape-recorded throughout the course and analyzed for developing pragmatic fluency, as defined by use of gambits (uptakers, clarifiers, appeals, starters), discourse strategies (grounders, disarmers, expanders, sweeteners, topic introducer), and speech acts (opening and closing phrases). House found that, although the explicit instruction group was ultimately superior in their use of gambits, discourse strategies, and speech acts, even students without explicit instruction improved in their pragmatic fluency over the 14 weeks. These results suggest that learners receiving exposure to L2 communication, even for a short period of time, may naturally improve in pragmatic competence.

Taguchi also discovered improvement in pragmatic comprehension abilities due to mere exposure in her aforementioned 2007 study of L1 Japanese college students over time. In this study, the length of exposure was even shorter than in House's study – only 7 weeks. Although the students were receiving English instruction during those 7 weeks, there was no specific course teaching pragmatic comprehension. Ninety-two Japanese students were tested via a computerized listening task on two types of implied meaning in dialogues (indirect refusals and indirect opinions). The students' scores were judged for accuracy and response time. The study

also measured general L2 proficiency and speed of lexical judgment. Students took this assessment twice, once at the beginning of the semester, and once 7 weeks later. Results demonstrated that the students improved in both comprehension accuracy and response time over the 7-week exposure period, even without explicit instruction in pragmatics. However, the effect size for response time was much smaller than that of accuracy. It appears that "the degree of development differed between accuracy and response speed; the gain of speed when processing pragmatic information was smaller than that of accurate understanding of pragmatic meaning" (Taguchi, 2007, p. 326). These two constructs (pragmatic accuracy and response speed) also appeared to have differing relationships to general L2 proficiency, as mentioned in the previous section. Taguchi believes the data suggest that L2 pragmatic comprehension is at least two-dimensional, involving separate constructs for accuracy and processing speed. These constructs then in turn have differing relationships to both L2 proficiency and L2 exposure. Taguchi notes that "development of performance speed, namely, automatic realization of pragmatic knowledge, seems to lag behind in L2 acquisition and does not develop as quickly as accurate demonstration of pragmatic knowledge" (Taguchi, 2007, p. 329).

Taguchi would, in a subsequent study, further explore the results of her 2007 study with greater focus on study-abroad experience, and would conclude that "the positive effect of sojourn abroad was not all-encompassing over different pragmatic targets: some aspects of pragmatic competence were more influenced by study-abroad experience than others" (Taguchi, 2011, p. 913). As mentioned previously, Taguchi in her 2011 study examined the effect that both general L2 proficiency and study-abroad experience have on pragmatic comprehension in English, as operationalized by both accuracy and response times. Twenty-five native English speakers and 64 Japanese college students of English were divided into three groups according to proficiency

(low, high) and study-abroad experience (none, 1 year), and completed a pragmatic listening test of implicatures. Study-abroad experience had no effect on response times, while proficiency did. Comprehension accuracy scores were more complicated, depending on the type of implicature (conventional or nonconventional). Both L2 general proficiency and experience in a host country significantly positively affected comprehension of nonconventional implicatures. In the case of conventional implicatures, however, only general proficiency (not study-abroad experience) affected accuracy.

Taguchi (2011) conjectured that study-abroad or L2 environment exposure have a selective effect on various features of pragmatic development. Certain pragmatic features (comprehension of routines, use of strategies and tactics) are assisted by experience in an L2 language community, while other features (precise syntax and lexis) may be less affected by L2 exposure and perhaps more influenced by general L2 proficiency development. Taguchi concluded,

> The study-abroad experience does not seem to have equal effects over different aspects of pragmatic competence. Some aspects get picked up quickly in learners' systems as a result of exposure to the target language in its full social context, whereas other aspects take some time to get internalized. These variations in the pace of development have been attributed to a variety of factors within individuals, context, and the interaction between them. These factors include differential amount and intensity of sociocultural contact and the range of social experiences (i.e., variety of social situations that one encounters in context), learner agency and subjectivity in accessing opportunities for pragmatic practice, and availability of feedback and modeling from native-speaker peers…these findings suggest a complex relationship

> between resident abroad experience and pragmatic targets, with general proficiency as a mediating factor. The structure of pragmatic targets, proficiency, and experience in the host country interacts with each other and jointly influence one's ability to perform pragmatic functions. (Taguchi, 2011, p. 914-916)

Bardovi-Harlig and Bastos, in their 2011 study, also note the diversity of findings in the literature regarding the effect of L2 environmental exposure on pragmatics, and remarked on the variety of variables in flux in such studies. They observe that while some studies suggest that "even very short stays might help learners become more target-like, particularly with respect to highly salient conversational functions such as greetings," still "other studies have found no apparent influence of length of stay" (Bardovi-Harlig & Bastos, 2011, p. 354). Such varied findings could be explained by the numerous variables in flux: length of stay (several weeks to several years), type of L2 environment exposure (home stay, academic study abroad, immigration), type of pragmatic fluency measured (comprehension/use of conventional expressions, comprehension of implicatures, use of intensifiers), and means of assessment (written, spoken). They conclude that "the difficulty of comparing the influence of proficiency, length of stay, and the more limited results of contact, in part stems from the fact that studies investigate different pragmatic targets, elicited by different tasks in different modes, and measure the outcome in different ways" (Bardovi-Harlig & Bastos, 2011, p. 358).

Like Taguchi (2011), they conclude that perhaps these conflicting findings are explained by the fact that pragmatic fluency comprises numerous sub-skills, each of which may be variably affected by exposure to L2 environment, and which may be further variable in the amount of time needed for development. Given the great diversity of length of L2 environment exposure in the pragmatics literature, it is perhaps not surprising that we have seen a subsequent great

diversity of findings regarding the influence of L2 environment exposure on pragmatic comprehension.

The Effect of "Intensity of Interaction" with L2 Environment

Related to length of L2 environmental exposure is the issue of "intensity of interaction" with the L2 environment, as termed by Bardovi-Harlig and Bastos in their 2011 study. Intensity of interaction considers learners' patterns of contact with the L2 environment, and may measure learners' exposure to native speakers, intimacy of relationships with native speakers, amount of reading and writing done in the target language, and/or frequency of watching television or movies in the target language.

Taguchi found support for the importance of this construct in her 2011 study, referring to the "differential amount and intensity of sociocultural contact" which played a role in L2 pragmatic comprehension and production. At the end of the study, participants completed a 10-item survey which asked them to self-report how many hours per day they spent doing activities in English, including interacting with native speakers, watching English television and movies, or doing homework. In a post hoc correlational analysis, Taguchi found a significant correlation between total amount of time participants spent using English and response times on the pragmatic listening test.

Further support for interaction patterns with the L2 environment can be found in Matsumura's impressive 2003 study, which modeled the relationship among pragmatic development, L2 proficiency, and "exposure" to L2. Matsumura studied 137 university-level Japanese learners of English over the course of an 8-month study abroad experience in Canada. "Exposure" to English was measured via a questionnaire in which participants self-reported both English class time and also English use outside the classroom (including time spent watching

movies and television, writing emails, or talking with their friends in English). Pragmatic competence was measured by a multiple-choice questionnaire that presented various alternative speech act realizations used to offer advice in reaction to twelve scenarios thought to occur in everyday university life. English learners' selections were compared against that of native speakers. Matsumura evaluated the influence of both L2 proficiency and English "exposure" utilizing powerful structural equation modeling, which compared several causal models. The study found English exposure, not L2 proficiency, to have the only demonstrated significant effect on pragmatic comprehension. Matsumura concluded that the data "suggests that amount of exposure can be seen as a cause of pragmatic development" (Matsumura, 2003, p. 484). He did stipulate, however, that these two factors (L2 proficiency and exposure) seem to interact in their influence on pragmatic development. Matsumura noted that his structural equation modeling data seem to suggest "empirical support for the indirect effect of proficiency on pragmatic competence via exposure…learners who reached higher levels of proficiency when they were in Japan sought more opportunities to be exposed to English in the target speech community, and as a consequence of greater exposure, they could become more pragmatically competent" (Matsumura, 2003, p. 485). This very much seems in agreement with Taguchi's conclusions (noted earlier), suggesting a complex relationship between proficiency and opportunities for L2 exposure on pragmatic awareness and development.

These results were corroborated and further developed by the aforementioned 2011 study done by Bardovi-Harlig and Bastos on the effects that proficiency, length of stay, and "intensity of interaction" have on the acquisition of conventional expressions in English pragmatics. The study included an aural recognition task (consisting of 60 conventional and modified expressions) and oral production task (consisting of 32 scenarios) of conventional expressions,

completed by 120 non-native speakers and 49 native speakers of American English. Length of stay in the L2 environment was measured in months, while intensity of interaction was operationalized by self-report of amount of English used outside of class with native speakers and other learners as well as weekly hours of English television viewing. These three measures were combined into a single "intensity score."

The study uncovered numerous interesting findings. First and foremost, both length of stay and intensity scores appeared to be independent of general L2 proficiency. In the first task, only intensity of interaction demonstrated a significant effect on non-native speaker recognition of conventional expressions; proficiency and length of stay did not. In the second task, both proficiency and intensity of interaction demonstrated significant effects on non-native speaker production of conventional expressions, while length of stay did not. The authors conclude that "length of stay appears to be the losing variable in this contest," but note that, even so, "length of stay is a complex variable" due to its interaction with intensity and proficiency – that is, a longer length of stay may produce outsized gains in L2 pragmatic competence for learners with higher levels of proficiency and the desire to intensely interact with their environment (Bardovi-Harlig & Bastos, 2011, p. 374-376). They note that "intensity of interaction is greatly facilitated by being in a host environment for those who take advantage of it," and that "these…data suggest that success in contact breeds greater success in contact," echoing the sentiments of Matsumura in his 2003 study (Bardovi-Harlig & Bastos, 2011, p. 373-375). It is clear that these measures (intensity of interaction, length of stay, and proficiency) are all certainly interrelated in a complex manner, and can be easily confounded with one another within studies. Any study measuring their differential effect sizes on L2 pragmatic competence must carefully control for them separately.

Interaction with online L2 environment. One factor conspicuously absent in the aforementioned literature investigating "intensity of interaction" and pragmatic development is that of social media and Internet-facilitated L2 interactions. In today's increasingly interconnected world, digital environments serve "as an authentic means of communication and relationship building…that operates as a critically important medium for all kinds of human interaction" (Sykes, Oskoz & Thorne, 2008, p. 528). Such digital media and technology-mediated life activity has become ubiquitous in its use by adolescents and young adults, whether in the form on online gaming, web browsing, online interest communities, or social media platforms (Facebook, Twitter, Instagram, Snapchat, Tumblr, Pinterest, Viber, et cetera). Emerging research clearly shows that these technologies are frequently used by L2 learners, allowing such users to "experiment and interact with a wide variety of norms of communication and social interaction" in their L2 (Sykes, Oskoz & Thorne, 2008, p. 534).

Academic research into the effect of technology on L2 development has mostly centered on Internet interest communities (including fan fiction and virtual diaspora community spaces) and online gaming (including online multiuser virtual environments, massively multiplayer online games, and synthetic immersive environments). Even a brief review of such research makes it clear that these technologies are incredibly popular with L2 learners (Zheng, Wagner, Young & Brewer, 2009) and that participation in these technologies inherently involves a communicative linguistic component. Online spaces for communication "foster attention to aspects of language use that span from appropriate lexical choice to syntactic accuracy and from rhetorical style to textual cohesion and genre specificity…full participation in virtually rendered spaces requires pragmatic control of the communicative norms local to a specific online community" (Sykes, Oskoz & Thorne, 2008, p. 530-5). It therefore seems reasonable to assume

that frequent participation in English medium Internet-facilitated communication might lead to L2 language development, particularly on the measure of pragmatics.

Several studies have found that L2 participation with Internet interest communities and online gaming seems to improve L2 abilities in various forms (Zheng, et al., 2009; Thorne, Black & Sykes, 2009; Sykes, Oskoz & Thorne, 2008). Zheng, Wagner, Young and Brewer suggest that online communication may in fact be ideal for L2 language development, as "virtual conversation has the affordances of being persistent and it leaves a perceptible trace for learners to reread, recheck, and reflect upon their own language use, which, combined with textual and graphic cues, can compensate for the loss of social cues present in face-to-face conversation" (Zheng et al., 2009, p. 505). Thorne, Black and Sykes in their 2009 study conclude that Internet-facilitated L2 interaction shows great promise for language learning, "especially in the areas of identity experimentation, task-based learning, negotiation for meaning/action, the development of intercultural competence and pragmatic abilities, the advancement of metalinguistic skills and strategies, and access to additional means of L2 assessment" (Thorne, Black & Sykes, 2009, p. 813).

It seems clear that any meaningful measure of "intensity of interaction" with the L2 environment must somehow attempt to capture a learner's interaction with the online L2 environment as well. Bardovi-Harlig and Bastos suggest this expansion of the "intensity" variable in their 2011 study. At the time this current study was written, however, no literature could be found that included such "interaction" variables in the study of L2 pragmatic development. The current study attempts to correct this oversight in the literature by adding to Bardovi-Harlig and Bastos' original set of "intensity of interaction" variables, including a measure for self-reported Internet and social media use in English. It is hypothesized that these

new "intensity of interaction" measures, in keeping with previous research on other "intensity of interaction measures," will demonstrate a positive effect on learners' pragmatic competence.

Research Questions

As mentioned in the introduction, this study seeks to explain some of the variance demonstrated in previous studies in relationship to mediators of L2 pragmatic competence – including general L2 proficiency, length of stay in L2 environment, and intensity of interaction with L2 environment (including social media and computer-mediated communication). As such, my research questions mirror those of Bardovi-Harlig and Bastos from their 2011 study, and are as follows:

What effect do proficiency, length of stay, and intensity of L2 interaction have on the acquisition of conventional expressions

a. *as measured by participants' recognition of conventional expressions?*
b. *as measured by participants' production of conventional expressions?*

Chapter 3

Method

Participants in the study completed three tasks, done during one 45-minute session, in the following order: an aural recognition task, an audio-visual production task, and a background questionnaire.

Participants

Participants in the study were composed of both native and non-native English speakers. The native speaker contingent included twenty-three native speakers (NS) of American English who teach English as a Second Language at a large four-year university in the Midwest of the United States. Fifty non-native speakers (NNS) of American English also participated. These students took classes at the same university. The majority of these NNS participants were students enrolled in the university's intensive English program (named the "Intensive English Center"). Other NNS participants were enrolled in the university's credit-bearing ESL courses (College ESL level 100 or 200), and still others were taking classes as an undergraduate or graduate student.

Prospective college students whose English proficiency test scores (such as the TOEFL or IELTS) do not meet the minimum university standard for admission may enroll in the Intensive English Center for the purpose of improving their English for university admission. Learners in the Intensive English Center (IEC) are placed in one of six levels (pre-level 1 to level 5) based on an entrance exam measuring grammatical, written, and aural comprehension abilities. Students who successfully graduate from level 4 are often eligible for undergraduate college admission in English-speaking programs (provided that the students demonstrate adequate English proficiency admission scores), while students who graduate from level 5 are

often eligible to pursue graduate degree work in English-speaking programs (again, provided that minimum English proficiency admission scores are met). These IEC students take a smattering of English courses 23 hours a week for approximately 13 weeks. These courses do include conversation courses (and an academic discussion course in levels 4 and 5), but none of the IEC curriculum specifically focuses on English conventional expressions.

The credit-bearing ESL courses are required for all new international students whose English proficiency exam scores are high enough to earn conditional university acceptance yet not sufficient to completely test out of the university's ESL program (for example, by earning a 600 on the paper and pencil TOEFL, 100 on the iBT, or a 7.5 on the IELTS, among other accepted measures). These students are placed in listening and speaking and/or reading and writing classes at the 100 or 200 level based on an essay exam and computerized Accuplacer ESL reading and listening assessment.

As neither age, gender, country of origin, nor L1 were independent variables considered relevant in this study, this data was not collected from participants. Participants encompassed a range of ages and included both males and females from a variety of countries and language backgrounds, including China, Saudi Arabia, Japan, Brazil, Korea, et cetera. Participation was voluntary, with no class credit or compensation available for completion of the study.

The NS participant data was used to establish conventional expressions norms for the production portion of the study. These native speakers were necessarily drawn from the same community as the learners to insure that the targeted expressions are actually being used and modeled by native speakers to the non-native speaker participants of the study, as suggested by Bardovi-Harlig and Bastos in their 2011 study. Unlike the 2011 study, the current study did not

recruit both native speaker teachers and undergraduate peers. Rather, the native speaker population consisted only of teachers in the IEC and College ESL programs.

Materials and Procedures

Recognition task. The aural recognition task consisted of 60 items, including 35 conventional expressions and 25 detractor items. The conventional expressions were the same as had been used in the original study (Bardovi-Harlig & Bastos 2011), and the distractor items were as listed in the appendix of Bardovi-Harlig's 2010 study. The conventional expressions were identified and developed by Bardovi-Harlig after extensive piloting of the production task with native speakers over the course of several years (see Bardovi-Harlig 2008; Bardovi-Harlig 2009; Bardovi-Harlig et al 2010). The distractor items differed from the similar conventional expressions by a single lexical or grammatical modification (e.g., *I'm just looking/I'm just seeing).* The conventional expressions used in the recognition task included conventional expressions that the scenarios in the later production task are expected to elicit (see Appendix C for a full list of both conventional expressions and distractor items).

The conventional expressions in the recognition task were presented aurally. The expressions were digitally recorded by a single female native speaker from the Midwest. The audio files were played to participants through individual headsets. Each expression was heard twice, with seven seconds between items. The expressions were randomized, but all participants heard the same recording (with the same order), as done in the original study.

The instructions for the recognition task were presented in English. The term "conventional expression" was not specifically named in the task, but instructions utilized Bardovi-Harlig and Bastos' 2011 definition as "words used together and always in the same order." The instructions were presented as follows:

> If you hear these words together and always in the same order, and you hear them often, circle "I often hear this." If you hear a phrase less often, circle "I sometimes hear this." If you never hear these words together or in this order, circle "I never hear this."

Participant answer sheets only included the item number and the three options explained in the instructions, which the participants circled. Two examples were given before the task began, using the examples provided in Bardovi-Harlig and Dörnyei's 1998 study, as shown below.

> Example A: Good morning.
> I often hear this I sometimes hear this I never hear this
>
> Example B: Bad morning.
> I often hear this I sometimes hear this I never hear this

These examples were meant to be very obvious so that the participants were able to immediately understand the task and know what they are being asked to judge.

Production task. The production task was also computer-delivered, with participants listening to scenarios presented over individual headsets. Participants were presented with 32 scenarios that Bardovi-Harlig (2009) found to elicit consistent conventional expressions by native speakers. The scenarios should elicit a variety of speech acts, including expressions of gratitude (4), apologies (4), warnings (3), leave-taking (3), requests (5), condolences (2), declining offers (2), acceptance of offers (2), and one apiece of acceptance of a request, acceptance of an invitation, an invitation, declining an invitation, an agreement, deflecting thanks, and an introduction. The full task, with all prompts and instructions, appears in the Appendix.

These scenarios included both "initiating" (n=13) and "responding" (n=19) scenarios. The initiating scenarios required participants to initiate an utterance, while the responding scenarios required participants to respond to an interlocutor's turn. Participants were trained with two examples of each type (see Appendices D and E). In both scenarios, participants simultaneously heard the scenario being read aloud to them and were able to read the scenario on their screen. After the prompt, responding scenarios (Example 2 below) then presented an aural turn without any written support, and participants then saw a new screen that showed only "You say," after which the participant provided their oral response. For initiation scenarios (Example 1 below), participants immediately saw the "You say" screen after hearing and seeing the initial scenario prompt.

> Example 1 (Initiating):
> (Visual and aural): *You see your friend standing on a chair trying to reach a book at the top of a bookshelf. You know that the chair she is standing on has a broken leg.*
> (Visual only): You say:
>
> Example 2 (Responding):
> (Visual and aural): *You go to a clothing store and you need to find a new shirt. A salesperson approaches you. You don't want the salesperson's assistance.*
> (Audio only): "Can I help you?"
> (Visual only) You say:

This task was computer-delivered, with participants listening to scenarios over individual headsets. Participants first heard the "initiating" scenarios, followed by "responding" scenarios. The scenarios within each category (initiating/responding) were randomized, yet all participants heard the same recording (with the same order), as done in the original study. The prompts in both the initiating and responding tasks were comprised of audio recorded by the same female native speaker from the Midwest as in the recognition task and, for the second aural turn, audio from a male native speaker also from the Midwest. Participants' responses were digitally recorded.

Background questionnaire. The background questionnaire collected data to ascertain information regarding length of time in L2 environment and five variables related to interactional "intensity" with L2 environment (see Appendix F). It included 16 questions, and was developed by the researcher. The first questions asked about amount of time spent in the United States or other English-speaking country, as measured in months. Subsequent questions regarding "intensity" asked about amount of time spent talking to native speakers, amount of time spent talking with other non-native speaking students in English, amount of time spent watching television or movies in English, amount of time spent using the Internet in English, and amount of time spent using social media in English, as measured in hours per week. The questionnaire was delivered and completed electronically using Google Forms.

Analysis

This section will review the coding and analysis of both dependent variables (recognition and production of conventional expressions) and independent variables (English proficiency, length of stay, and intensity of interaction).

Recognition task. As described above, recognition of a conventional expression was operationalized as the self-report data by participants of how often they hear a given string of words. This data was scored and analyzed in two distinct ways for two different purposes. First, an average score was calculated for each expression in order to discover which expressions were most and least recognized by participants. Secondly, recognition was converted into a dichotomous score (+/- recognition) to be used in the later statistical analysis.

To calculate a mean score for each expression, each participant response was coded with a point value. "I never hear this" received 0 points, "I sometimes hear this" received 1 point, and "I often hear this" received 2 points. Scores for each individual expression were added across all

responses, and then divided by the number of respondents for an average recognition score ranging from 0 to 2. This average recognition score was calculated separately for NS and NNS, in order to compare frequency of recognition across the two groups (see Table 2, columns 6 and 7 for respective average recognition score).

To prepare for later statistical analysis, the data was then also converted into a dichotomous score (+/-), with "I never hear this" considered non-recognition ("0"), and "I sometimes hear this" and "I often hear this" considered recognition ("1"). In the case of NNS, this dichotomous score was used to calculate a "total recognition score," which summed all recognized conventional expressions (not including false positive distractor item recognition). This dichotomous score was further used to determine overall percentages of learners and native speakers who reported recognizing a given expression (see Table 2, columns 2-4).

Production task. The oral production task included 2,336 responses (73 respondents in 32 scenarios). The researcher transcribed all participant responses. Native speaker production was transcribed and coded first, as these responses were used to establish a "norm" in the given language community and thus the subsequent acceptable conventional expression formulas by which to judge NNS responses. Conventional expressions were defined as only those expressions that were produced by at least 50% of the native speakers in any given scenario, following the precedent set by Bardovi-Harlig and Bastos in their 2011 study. This cutoff point is used to ensure that each scenario elicits a single dominant conventional expression while still accounting for native speaker variation.

Although the context of each scenario may demand a particular speech act, certain conventional expressions exhibit predictable variability. This variability may be lexical, morphological, or syntactic nature, and may include intensifiers (*I'm (so) sorry*), noncontracted

copula (*I am (so) sorry*), or other minor grammatical differences. For example, in the scenario in which the participant must end a phone conversation (I-11), 78% of the native speaker participants responded with either *I gotta go* or *Gotta go,* the dominant utterance being *I gotta go* (48%), followed by *Gotta go* (26%) and *I've gotta go* (4%). This variation was taken into account by stating the acceptable conventional expression formula as *({I/I've}) gotta go*.[1] These conventional expression formulas "may lead to a somewhat generous interpretation of what it means to 'say the same thing,' but this approach attempts to capture both restricted NS variation and learner development" (Bardovi-Harlig, 2009, p. 765).

Following Bardovi-Harlig and Bastos' 2011 paper, this study attempted to codify the various iterations of conventional expressions demonstrated in native speakers' production, and to determine which variations were "acceptable" and which were not. In general, this study followed the example set by Bardovi-Harlig and Bastos by accepting variability in lexical items (*{Look/watch} out!*), noncontracted copula (*That {'d/would} be great*), and minor lexical substitution (*Can you {get/grab/hand} me…?)*. In contrast to the original study (Bardovi-Harlig & Bastos, 2011), this researcher also chose to accept variations in tense of modal verbs when used in requests ({*Can/could} I get a ride?).*

The native speaker data in this particular study demonstrated quite a bit more variability in the production task than did the original Bardovi-Harlig and Bastos study. Although certain scenarios elicited almost total uniformity in response (R-15: *nice to meet you*, 78%*),* others prompted a wide array of replies. It is possible that this variability in native speaker production was due to the particular population used in this study. These native speaking participants were all graduate assistant teachers of ESL at the same Midwestern university that the NNSs attended.

[1] Conventional expressions are given using standard linguistic notation. Curly brackets { } show alteration, and parenthesis indicate optional elements: *{I'm/I am} (intensifier) sorry* may be realized as *I'm sorry*, *I am sorry*, or both, with the addition of *so* or *very*.

However, as is common at many large universities, these graduate students have come to this university from a wide range of geographical regions across the United States (or even abroad). This geographic (and corresponding linguistic) diversity of the native speaker population might explain the large amount of unforeseen variability in native speaker responses to the production task. It is unclear if this was also a possible issue in the 2011 Bardovi-Harlig and Bastos study, as age was the only variable reported of the NS participant group; geographic origin was not addressed.

Using the 50% native speaker production requirement explained above, 25 of the 32 scenarios yielded a conventional expression formula (see Appendix G). In total, these 25 scenarios prompted 28 conventional expressions to be included in the statistical analysis.

Seven scenarios did not generate dominant conventional expressions meeting the stated 50% native speaker production threshold. These seven scenarios (I-4, I-10, I-13, R-10, R-11, R-13, R-14) appear to have various reasons for not meeting this threshold. The responses that were elicited by the scenarios were often of a similar speech act type (i.e.: thanking, requesting, apologizing). Scenario I-13, for instance, ended with the prompt, "You would like the roommate to tell your friend something." Nearly all native-speaking participants correctly interpreted this scenario as prompting a request. The various types of requests, however, seemed to vary greatly. Only 17% of participants produced the expected expression *Can I leave a message*, while many other requests were made, including *Can you let him/her know that…*(22%) and *Could you tell him/her that…*(13%). The wide variation on the part of native speakers in response to this scenario could be due to the fact that the scenario is somewhat anachronistic; the majority of college-age adolescents in the United States use cellular phones for much of their

communication, and it is likely that the use of the conventional expression *Can I leave a message* has decreased as the rate of personal cell phones and texting has risen.

Other scenarios seem to have missed the 50% native speaker production rate due to ambiguity, or interpretation of the scenario as requiring differing speech acts. Scenario I-4, which involved saying goodbye to a friend, elicited only 26% of native speakers to produce the expected expression *{Adj} {to see/seeing} you*. The scenario instead generated numerous variations of differing speech acts, including a goodbye (*{See/catch} you later* - 22%) and a request to schedule another meeting (…c*atch up* - 22%). Likewise, scenario R13, wherein the participant meets their professor during office hours and is responding to "Come in," prompted greetings, requests, apologies, and thanking responses (*Thank {s/you}* – 30%; *Do you have a minute* - 30%; *Sorry* - 9%; *I was wondering* – 22%). Perhaps with a larger pool of participants, the variations found in this native speaker data would normalize in favor of the expected conventional expressions as formulated by Bardovi-Harlig and Bastos (2011). It is also possible that this speech community, despite being rather similar to that studied by Bardovi-Harlig and Bastos in their study (ESL teachers from a large public research university in the Midwest), demonstrate distinct speech conventions and use of conventional expressions that differ from those of the population in the original study.

After coding native speakers' responses and determining final acceptable conventional expression formulas (see Appendix G), non-native speaker utterances were coded. A response received a score of "1" if it matched the predetermined conventional expression formula established by native speaker responses, and a "0" if it did not. This dichotomous scoring system was used to calculate a final "total production score" for each NNS, to be used later in the statistical analysis.

Proficiency. Enrollment in the Intensive English Center, College ESL 100, College ESL 200, or regular undergraduate/graduate classes was used as a proxy for English proficiency. As previously mentioned, IEC students are placed in one of six levels (pre-level 1 to level 5) based on an entrance exam measuring grammatical, written, and aural comprehension abilities. These six IEC levels compromised the first six proficiency levels classified in this study. Participants coming from the university's College ESL 100 course were classified as proficiency level 7, participants from College ESL 200 as proficiency level 8, participants enrolled in undergraduate courses as level 9, and participant enrolled in graduate courses were classified as proficiency level 10.

Length of stay. Both length of stay (LOS) and intensity of interaction consisted of self-reported variables elicited from the questionnaire. Length of stay in an English host environment was reported in months. The range of reported LOS was quite large, at 1 to 42 months. This range of data was then divided into approximate thirds of participants and converted into a score of 1, 2, or 3 for later statistical analysis. Such grouping of participants into bands was done given the justification in the original study that "there was no assumption that each month in the host environment would lead to improvement"; more important than specific *number* of months of exposure is the overall *amount* of exposure (limited, moderate, abundant) (Bardovi-Harlig & Bastos, 2011, p. 364).

Bardovi-Harlig and Bastos' 2011 study used LOS bands of 1 to 3 months (coded as 1), 4 to 6 months (coded as 2), and 7-8+ months (coded as 3). Given that the LOS range reported by participants in this current study differed considerably from that of the original study, this study did not use this same framework for LOS bands, as this would not have created bands of approximate thirds. Instead, this current study used the following framework: 1-3 months was

coded as 1 (n = 17), 4-9 months was coded as 2 (n = 12), and 9+ months was coded as 3 (n = 21). The 9+ months band demonstrated wide variability, with 6 participants reporting 10-15 months, 9 participants reporting 16-20 months, and 3 participants reporting over 20 months LOS. This 9+ month band had an average of 19 months, and a median and mode of 18 months each.

Intensity of interaction. Intensity of interaction is a combined measure of five different "intensity" measures: amount of time spent talking in English with native speakers, amount of time speaking in English with non-native speakers, time spent watching television or movies in English, and, as new additions to the original Bardovi-Harlig and Bastos study, time spent using the Internet and social media in English. Each of these measures were prompted in an open-ended format on the questionnaire, and reported in number of hours per week. As with the length of stay data, the data collected on each intensity measure (time talking with NS, time talking to NNS, TV/movie watching, Internet use, social media use) was divided into bands of approximate thirds and converted into a coded score of 1, 2 or 3 for later statistical analysis. Again, the justification for the decision to convert the raw data into bands is that the influence of each hour in these "intensity" factors is hypothesized to not necessarily follow a linear additive formula, but rather be relative in its effect. Overall amount of exposure was considered more important than specific values. After conversion of the bands into a 0-3 score for each of the five "intensity" measures, the coded scores were then added together for a single intensity of interaction score (hereafter, *intensity score*). The possible range of the intensity score was 0 to 15 (see Table 1 for a summary of intensity variable coding).

With regard to talking with native speakers, participants reported an overall range of 0 to 90 hours a week. Again, due to the wide range of data, this study did not follow Bardovi-Harlig and Bastos' original framework, instead opting to retain bands of approximate thirds in order to

be able to compare relative amounts of exposure. In the original study, bands were established as: never = 0, 1 hour a week = 1, 2-4 hours a week = 2, 5+ hours a week = 3. This current study used the following framework: *never* was coded as 0 (n = 7), 1-4 hours a week was coded as 1 (n = 16), 5-10 hours a week was coded as 2 (n = 11), and 10+ hours a week was coded as 3 (n =16). Once again, the responses in the highest band varied considerably, perhaps due to overestimation the part of some participants. Seven participants reported 11-15 hours of speaking to native speakers, and the remaining 8 participants in the band reported over 24 hours of speaking to native speakers a week. The average in this band was 28.4 hours, with a median of 24 hours and a mode of 15 hours.

In the case of time speaking in English with other non-native speakers, the reported range was somewhat less variable, ranging from 0 to 70 hours a week. Once again, this study opted to modify the original Bardovi-Harlig and Bastos framework for dividing the data into bands. Their original framework was as stated above in the "speaking with native speakers" measure. This current study used the following framework: *never* was coded as 0 (n = 3), 1-3 hours a week was coded as 1 (n = 17), 4-10 hours a week was coded as 2 (n = 12), and 10+ hours a week was coded as 3 (n = 18). The highest band continued to demonstrate variability, with an average of 26.8 hours a week, and a median and mode of 20 hours a week each.

For scores on watching television or movies in English, this study followed the framework used in the Bardovi-Harlig and Bastos study: never was coded as 0 (n = 3), 1-4 hours a week was coded as 1 (n = 13), 5-10 hours a week was coded as 2 (n = 18), and 10+ hours a week was coded as 3 (n = 16). The data ranged from 0 to 50 hours per week. The highest band was much less variable on this than on other measures, with an average score of 23.07 hours a week, and a median of 20 hours a week.

Table 1

Summary of Intensity Variable Coding

Intensity Score Coding Summary

Speaking to Native Speakers			**Speaking to Non-Native Speakers**			**Television/movie watching in English**			**Internet Use in English**			**Social Media Use in English**		
Coded as	Number of hours (weekly)	(n)	Coded as	Number of hours (weekly)	(n)	Coded as	Number of hours (weekly)	(n)	Coded as	Number of hours (weekly)	(n)	Coded as	Number of hours (weekly)	(n)
0	0	7	0	0	3	0	0	3	0	0	0	0	0	2
1	1 to 4	16	1	1 to 3	17	1	1 to 4	13	1	1 to 4	15	1	1 to 5	14
2	5 to 10	11	2	4 to 10	12	2	5 to 10	18	2	5 to 10	17	2	6 to 15	13
3	10+	16	3	10+	18	3	10+	16	3	10+	18	3	15+	21

The banding of data on using the Internet and/or social media in English, although two intensity measures new to this study, was modeled after the other previous intensity measures. Internet use data demonstrated a range of 0 to 70 hours per week, and was divided into the following three bands of approximate thirds: *never* was coded as 0 (n = 0), 1-4 hours a week was coded as 1 (n = 15), 5-10 hours a week was coded as 2 (n = 17), and 10+ hours a week was coded as 3 (n = 18). The upper band had an average score of 29.17 hours per week, with a median and mode of 25 hours per week each. Finally, self-report data on social media use in English ranged from 0 to 84 hours per week. This range was divided into the following bands: *never* was coded as 0 (n = 2), 1-5 hours a week was coded as 1 (n = 14), 6-15 hours per week was coded as 2 (n = 13), and 15+ hours per week was coded as 3 (n = 21). This upper band demonstrated the highest degree of variability, with an average score of 32.81 hours per week, a median of 30 hours per week, and a mode of 20 hours per week.

Statistical analysis. To determine whether the independent variables investigated (proficiency, length of stay, intensity of interaction) had an effect on conventional expression recognition and production, three analyses of variance (ANOVA) were carried out, one for each of the independent variables. Only NNS data was included in the statistical analysis, as the NS scores on the dependent variables were used exclusively as a comparison because the independent variables do not apply to the native speakers.

After the coding of independent variables (L2 proficiency, length of stay, intensity of interaction; as detailed earlier, see Appendices H-J for full coded data sets), it was found that many of the sample sizes of groupings within each variable were unequal. More problematically, several groupings within the proficiency level and intensity variables had a sample size of only 1. Such low sample sizes would not allow for post-hoc analyses of the data.

To remedy this problem and allow for detailed statistical analysis, it was suggested that the already-coded data for proficiency and intensity should be further combined into groups of roughly equal size. Proficiency level groupings were as follows: proficiency levels 1 and 2 were combined to form group 1 (n=11), levels 3 and 4 were combined to form group 2 (n=15), levels 5 and 6 were combined to form group 3 (n=16), and levels 8 and 10 were combined to form group 4 (n=8). Intensity score was grouped and further coded as follows: intensity scores 3, 4, 5, 6, and 7 were combined to form group 1 (n = 14), intensity scores 8, 9 and 10 were combined to form group 2 (n=13), intensity scores 11 and 12 were combined to form group 3 (n=10), and intensity scores 13, 14 and 15 were combined to form group 4 (n=13).

Chapter 4

Results

First, a mean and standard deviation was calculated for length of stay (LOS) and intensity of interaction (intensity) across each level of proficiency. Because students can join any of the classes offered by the intensive English program or credit-bearing ESL program at different times throughout the year, LOS was expected to be independent of proficiency. The range for LOS across all participants was 1 to 42 months, while the demonstrated range of intensity scores was 3 to 15 (out of a possible range of 0 to 15). As can be seen in Table 2, proficiency level appeared to correlate with neither LOS nor intensity measures.

Table 2 also vividly demonstrates that participants in this study reported large variances on measures of both LOS and intensity within each proficiency level, as can be seen by the large standard deviations values. The variance on the LOS measure was large for all proficiency groups, and was most notable within proficiency level 3. The LOS data in this group ranged from 3 to 42 months, with 42 months acting as an extreme outlier (the four data points in this group being LOS of 3, 3, 3, and 42).

The LOS and intensity averages in this study (as well as the standard deviations values) were notably higher than those reported in the original study (Bardovi-Harlig & Bastos 2011).

Recognition, Proficiency, LOS, and Intensity.

First we will examine learners' average recognition scores and average rate of recognition (Table 3). The learners' average recognition scores of conventional expressions (Table 3, column 6) ranged from 2.00 for expressions such as *No problem, I'm sorry, Excuse me* and *Thank you* – indicating universal "I often hear this" recognition – to 0.38 for *Sure thing* –

Table 2

Distribution of Mean Length of Stay and Intensity by Proficiency Level

	Proficiency level															
	1 (N = 10)		**2** (N = 1)		**3** (N = 6)		**4** (N = 9)		**5** (N = 12)		**6** (N = 4)		**8** (N = 4)		**10** (N = 4)	
	Mean	(SD)	Mean	(SD)	Mean	(SD)	Mean	(SD)	Mean	(SD)	Mean	(SD)	Mean	(SD)	Mean	(SD)
LOS (in months)	6.3	(5.27)	5	NA	12.75	(16.89)	10.39	(7.67)	10.75	(7.03)	5.25	(4.09)	3.5	(3.20)	22.25	(5.67)
Intensity	8.8	(2.48)	9	NA	9.33	(4.19)	9.11	(2.92)	11.58	(3.43)	7.25	(2.28)	10.25	(3.96)	10.25	(2.59)

Note. SD = standard deviation

indicating that the majority of learners reported having never heard the expression. Native speaker recognition scores for the aforementioned universally recognized expressions were 2.00, 1.96, 1.91 and 1.91, respectively. The expressions with the lowest learner average recognition scores were as follows: *Want a ride* (0.90), *Excuse the mess* (0.64), and *Sure thing* (0.38).

In addition to average recognition score, recognition can also be viewed through the lens of the percentage of learners or NSs who reported recognizing an expression (measured dichotomously +/- recognition; Table 3, columns 2 and 4). Nine conventional expressions demonstrated 100% learner recognition: *No problem, You're welcome, Be quiet, I'm just looking, I'm sorry, Nice to meet you, Excuse me, I'm late* and *Thank you.* These nine expressions with universal recognition also tended to be rated higher in terms of average recognition scores (Table 3, column 6), ranging between 1.82 and 2.00 (with 2.00 indicative of universal "I often hear this" selection by learners). The expression with the lowest percentage of recognition included *Watch out* (68%), *Thank you for having me* (62%), *Want a ride* (62%), *Excuse the mess* (52%), and *Sure thing* (28%). These same expressions tended to demonstrate a corresponding low average recognition score, showing that even those learners who indicated recognition of the expression rated it as being heard infrequently. The corresponding average recognition scores for the aforementioned expressions with lowest learner percent recognition rate are as follows: *Watch out* (1.14), *Thank you for having me* (1.02), *Want a ride* (0.90), *Excuse the mess* (0.64), and *Sure thing* (0.38).

Table 3

Self-Reported Recognition of Expressions in Descending Order by NS Rating

Expression	% NNS		% NS		Average Recognition Score	
	N = 50		N = 23		NNS	NS
	%	(N)	%	(N)		
No problem	100	50	100	23	2.00	2.00
No thanks	96	48	100	23	1.92	2.00
You too	98	49	100	23	1.94	2.00
You're welcome	100	50	100	23	1.98	2.00
Be careful	98	49	100	23	1.92	1.96
Be quiet	100	50	100	23	1.86	1.96
Do you have a minute?	92	46	100	23	1.70	1.96
I gotta go	94	47	100	23	1.58	1.96
I'm just looking	100	50	100	23	1.82	1.96
I'm sorry	100	50	100	23	2.00	1.96
Nice to meet you	100	50	100	23	1.98	1.96
Can I get a ride?	80	40	95.7	22	1.34	1.91
Excuse me	100	50	100	23	2.00	1.91
I'd love to	88	44	100	23	1.50	1.91
I'm late	100	50	100	23	1.86	1.91
Thank you	100	50	95.7	22	2.00	1.91
Sure thing	28	14	100	23	0.38	1.87
Would you mind?	96	48	100	23	1.64	1.87
Nice to see you	98	49	100	23	1.86	1.83
That works for me	90	45	100	23	1.50	1.83
Can I leave a message?	94	47	100	23	1.62	1.78
I was wondering	80	40	100	23	1.34	1.78
Keep it down	90	45	100	23	1.26	1.78
Thank you for having me	62	31	100	23	1.02	1.78
That'd be great	88	44	100	23	1.40	1.78
Watch out!	68	34	100	23	1.14	1.78
Shut up	86	43	100	23	1.36	1.74
Thanks for your time	94	47	100	23	1.68	1.74
Would you like to?	96	48	95.7	22	1.74	1.61
Excuse the mess	52	26	95.7	22	0.64	1.57
My place	80	40	87	20	1.28	1.57
Want a ride?	62	31	87	20	0.90	1.48
I'm looking for	92	46	78.3	18	1.66	1.43

Other plans	86	43	65	15	1.32	1.17
The place is messy	76	38	74	17	1.18	0.87

Note. % = Percent of learners/native speakers who reported recognizing an expression. Average recognition scores comprise a range of 0-2, with 2.00 being the maximum score. Organized by the recognition scores of native speakers.

Next we will analyze learners' total recognition score against our independent variables (L2 proficiency, length of stay, and intensity of interaction – see appendices H, I and J for full coded data sets). Figures for average recognition scores across proficiency, length of stay, and intensity of interaction can be seen below in Figures 1, 2, and 3, respectively.

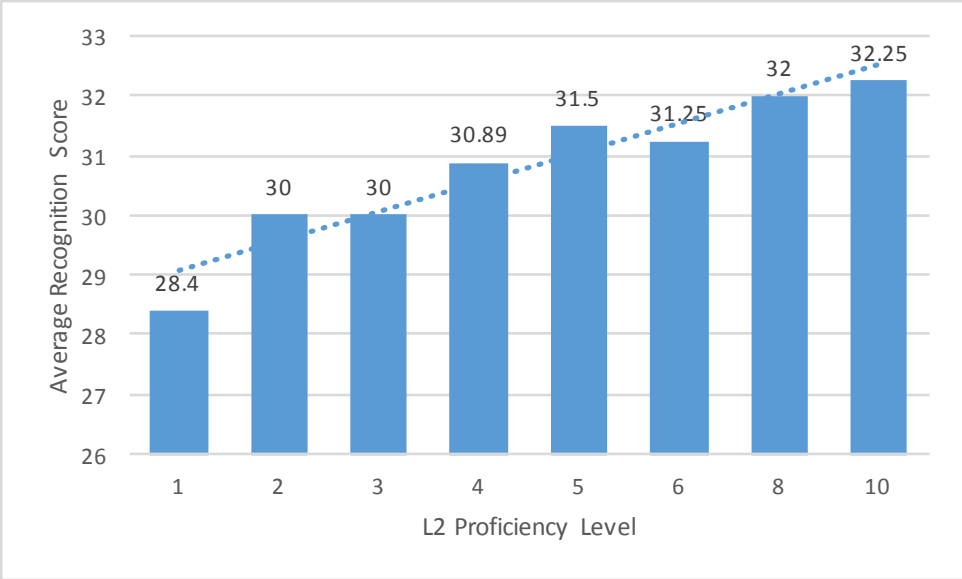

Figure 1. Average Recognition Score Across Proficiency Levels

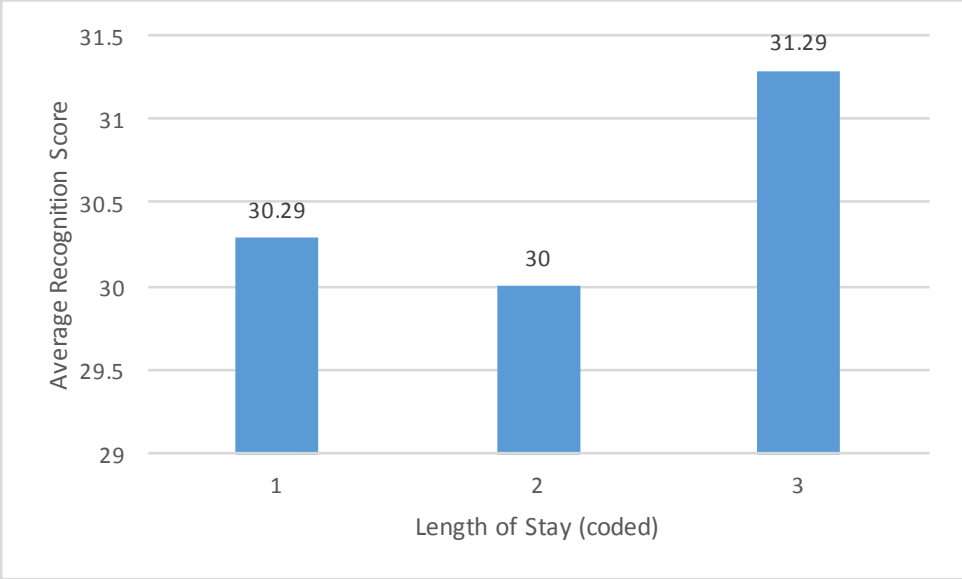

Figure 2. Average Recognition Score Across Length of Stay

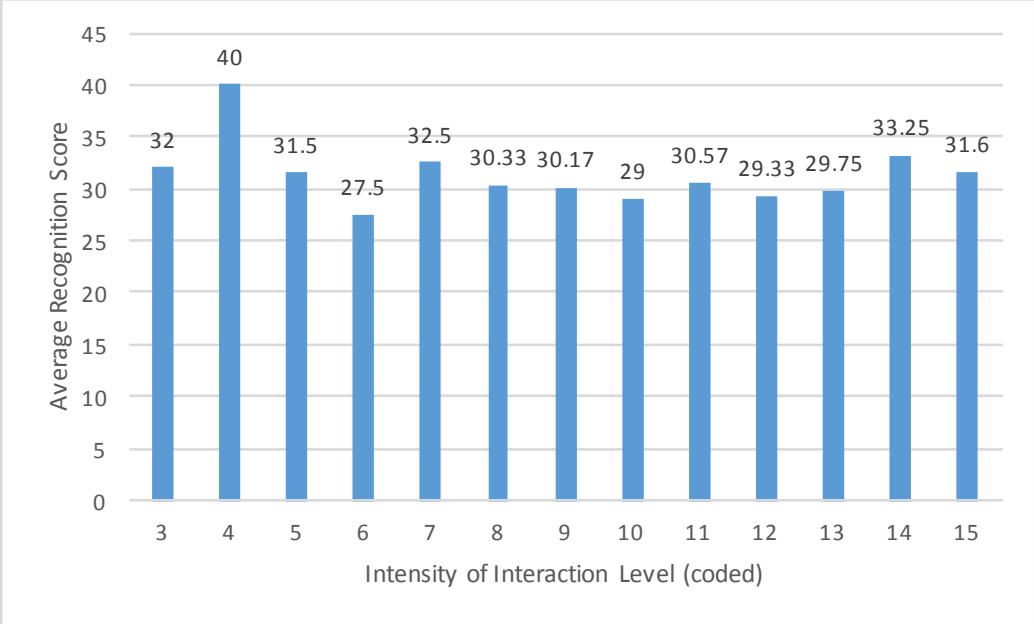

Figure 3. Average Recognition Score Across Intensity Levels

There was a significant effect for proficiency on the recognition task as determined by a one-way ANOVA (F(3, 46) = 4.767), p = .006; Table 4). Post hoc comparisons using the Tukey B test indicated that the mean score for the grouping including proficiency levels 1 and 2 (M = 28.55, SD = 2.34) was significantly different than the group including proficiency levels 5 and 6 (M = 31.44, SD = 2.45), and significantly different than the group including proficiency levels 8 and 10 (M = 32.13, SD = 1.13). However, the group including proficiency levels 3 and 4 (M = 30.53, SD = 2.56) did not significantly differ from any of the other groupings. Furthermore, the group including proficiency levels 5 and 6 did not differ from the group including proficiency levels 8 and 10.

No significant difference of performance on the recognition task was demonstrated for either length of stay or intensity of interaction.

Table 4

One-Way Analysis of Variance for Proficiency Level on Dependent Variables

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
RecogScore	Between Groups	76.247	3	25.416	4.767	.006
	Within Groups	245.273	46	5.332		
	Total	321.520	49			
ProdTasksScoreI	Between Groups	51.844	3	17.281	12.512	.000
	Within Groups	63.536	46	1.381		
	Total	115.380	49			
ProdTasksScoreR	Between Groups	225.345	3	75.115	22.635	.000
	Within Groups	152.655	46	3.319		
	Total	378.000	49			
ProdTasksScoreIR	Between Groups	475.215	3	158.405	35.275	.000
	Within Groups	206.565	46	4.491		
	Total	681.780	49			

Production, Proficiency, LOS, and Intensity

First we will examine learners' overall average production scores and average rate of production for each expression (Table 5). The production task showed that very few conventional expressions were produced by any sizeable percentage of non-native speakers across various scenarios. The conventional expression demonstrating the highest percentage of use (Table 5, column 4) was *(Thanks) you too* in response to *Have a nice day* at 84% production by non-native speakers. The only other conventional expressions to cross the 50% threshold of use by learners were *Nice to meet you* (72%; R15), *{I am/I'm} (intensifier) sorry* (64%; R8), *I'm (intensifier) sorry (to hear that)* (62%; R1), *No, I'm {stuffed/full}* (52%; R19b), and *No, thank {s/you}* (50%; R19a).

The conventional expressions with the lowest rate of production by learners included *That {'d/would} be great* (0%; R18a), *Keep it down* (0%; I9b), *My place* (4%; I2), *I'm looking for* (6%; R4), *That {'d/would} be {adj}* (6%; R2), *{Can/could} you {get/grab/hand} me* (6%; I7), and *{Sorry about/sorry for/pardon/don't mind} the mess* (6%; I6). Indeed, the majority of scenarios elicited less than a 25% correct production rate from the non-native speakers.

Between the scenarios eliciting highest and lowest use, 35% to 50% of learners correctly produced the conventional expressions *I'm (intensifier) sorry to hear (about) that* (38%; R16), *Thank {s/you} (intensifier) much* (40%; R17), *Thank {s/you}* (42% and 50% for a scenarios R18 and R19, respectively).

Table 5

Use of Expressions on the Production Task

ID	Context	Conventional Expression	Learners		Native Speakers	
			n = 50		n = 23	
			%	(n)	%	(n)
R6	*Have a nice day!*	(Thanks) you too	84%	42	87%	20
R15	Introduction	Nice to meet you	72%	36	78%	18
R8	Unreturned book	{I am / I'm} (intensifier) sorry	64%	32	52%	12
R1	Dog hit by car	I'm (intensifier) sorry (to hear that)	62%	31	74%	17
R19b*	More food	No, I'm {stuffed / full}	52%	26	57%	13
R19a*	More food	No, thank {s / you}	50%	25	52%	12
R18b	Rain	Thank {s / you}	42%	21	35%	8
R17	Make-up test	Thank {s / you} *intensifier* much	40%	20	52%	12
R16	Teacher father death	I'm (intensifier) sorry to hear (about) that	38%	19	70%	16
I1	Broken chair	(Be) careful	34%	17	52%	12
I8	Late (25)	{I am/I'm} (intensifier) sorry (that) (I'm late)	32%	16	91%	21
I3	Puddle	Watch out	28%	14	65%	15
I12	Bus	{Look/watch} out	26%	13	57%	13
I10	Busy teacher	Thank {s / you} (so much) for your time	24%	12	39%	9
R9	Gave ride	(Sure) no problem	24%	12	78%	18
I9a	Movies	Be quiet	22%	11	35%	8
R5	Movies hold line spot	Sure (no problem)	22%	11	74%	17
R12	Shopping (no help)	I'm just looking	22%	11	57%	13
I4	Goodbye to friend	{adj} {to see / seeing} you	16%	8	26%	6
I11	Cell phone	({I/I've}) gotta go	14%	7	78%	18
R7	Late (5)	(I'm) (intensifier) sorry (that) I'm late	14%	7	61%	14
I5	Car ride	{Can/could} I {get/catch} a {ride/lift}	10%	5	57%	13
R3	Closing, party	Thank {s/you} for {having / inviting} me	10%	5	52%	12
I6	Messy apartment	{Sorry about / sorry for / pardon / don't mind} the mess	6%	3	52%	12
I7	Glass	{Can/could} you {get/grab/hand} me…	6%	3	61%	14
I13	Leave message	{Can/could} I leave (you/him) a message?	6%	3	26%	6
R2	Offer of help	That {'d/would} be {adj}	6%	3	61%	14
R4	Shopping (shirt)	I'm looking for	6%	3	52%	12
I2	Invite to apartment	My place	4%	2	61%	14
R11	Library study	(That) works for me	4%	2	17%	4
R10	Teacher dinner (refusal)	(other) plans	2%	1	43%	10

R14	Teacher dinner (accept)	I'm (really) looking forward to it	2%	1	13%	3
I9b	Movies	Keep it down	0%	0	17%	4
R13	Teacher office hour	Do you have a minute?	0%	0	30%	7
R18a	Rain	That {'d / would} be great	0%	0	26%	6

Note: I = initiating utterance. R = responding utterance. { } indicates alternation; ( ) indicates an optional lexical element. Shaded rows indicate scenarios that did not meet the 50% NS production threshold. Organized by production percentage of NNS.
*Responses to R19a and R19b add up to more than 100% for both NS and NNS because many NS and NNSs used a combination of both expressions in their response.

By and large, the level of conventional expression production was quite low across all scenarios for NNSs, but this was not surprising given the similarly low levels of production reported in the original study (Bardovi-Harlig & Bastos, 2011). Both the production levels and general order of expression production demonstrated here by NNSs were remarkably similar to those demonstrated in the original study (Bardovi-Harlig & Bastos, 2011). On average, the levels of production found by this study were moderately lower than that those of the Bardovi-Harlig and Bastos study, with a few exceptions (I3 *Watch out* was produced by 28% of the NNSs in this study but only 16% of those in the original study; I11 *Gotta go* was produced by 14% of the NNSs in the current study but only 4% of those in the original study). The expressions found in this study to be most and least produced mimic the findings of the original study as well.

The low NNS production rate in the current study seems to be due to three main causes: NNS approximation of preferred conventional expressions, NNS overuse of alternate conventional expressions, and scenarios that were misinterpreted by NNS as requiring a different speech act. We will examine each of these phenomena in turn.

Approximation of preferred conventional expressions. It appears that, in the vast majority of scenarios, NNS participants understood the type of speech act required (sociopragmatics), but did not necessarily have the corresponding correct conventional language

to make themselves understood (pragmalinguistics). Often, this resulted in a shortened approximation of the preferred conventional expression (R7: *I'm sorry,* rather than the NS-preferred *I'm (intensifier) sorry (that) I'm late*). Or, in lieu of having the preferred expression at their disposal, participants used a combination of circumlocution and avoidance to navigate the situation (I2: *You must come to my house to study*). These approximations at conventional expressions often included grammatical errors (I8: *I'm sorry for late),* or involved alternate lexical or syntactic choices. In addition to the scenarios already mentioned, approximation tended to occur in scenarios I5 (*Can I have a ride with you?),* I7 (*Can you give me this glass, please*?), I9 (*I want to see the movie*), R5 (*Yes*), R11 (*Yes, of course*), and R16 (*Oh, I'm sorry for hear that*).

Overuse of alternate conventional expressions. As Bardovi-Harlig also found in her 2009 study, the learners in this study often overgeneralized or overused familiar conventional expressions. They tended to use these known conventional expressions in contexts which were relatively appropriate, but where native speakers tended to make a different conventional expression choice. This can very clearly be seen in the differing patterns of demonstrated use by NSs and NNSs with the similar expressions *Watch out* and *Be careful*. In scenario I1 (broken chair), native speakers most often produced *Be careful* (52%), with only 4% of native speakers using the alternative *Watch out*. Still, 16% of NNSs substituted the expression *Watch out*. In a scenario that called for a similar warning speech act, I3 (puddle), 65% of native speakers used the expression *Watch out*, with 0% selecting the alternative *Be careful*. Yet 18% of NNSs chose *Be careful*, and only 28% produced the preferred *Watch out.*

The conventional expression most overused by NNSs appears to be *Thank you.* This was produced by 62% of NNSs on scenario R2 (and only 35% of NSs), rather than the preferred *That*

{'d/would} be {adj} (produced by 61% of NSs but only 6% of NNSs). *Thank you* was also used without the preferred intensification or expansion in scenarios R17 (38% of NNSs compared to 22% of NSs) and R18 (12% of NNS, 0% of NSs).

Scenarios misinterpreted as requiring a different speech act. Finally, several scenarios appear to have been misinterpreted by learners as requiring an alternate speech act. In the giving a ride scenario R9, for instance, the majority of NNSs (62%) produced *You're welcome* (an acceptance of thanks) rather than the NS-preferred *No problem* (a deflection of thanks – only 24% of NNSs but 78% of NSs). A misinterpretation also occurred in I6 (messy apartment), with some NNSs producing expressions of invitation (24% NNSs, 39% NSs) or even a request for help (i.e. *Can you help me to clean the house*, 10% NNSs, 4% NSs) rather than an apology for the mess (24% NNSs, 74% NSs). Scenario R3 (the end of a party) had participants responding to *Thanks for coming*, which only 24% of NNSs interpreted as requiring a thanking speech act (*Thank {s/you} for {having / inviting} me*, 70% NSs). Instead, NNSs accepted thanks for attendance (i.e. *You're welcome*, 56% NNSs, 4% NSs).

These issues interfering with learners' production of NS-preferred conventional expressions (approximations of preferred conventional expressions, overuse of alternate conventional expressions, and scenarios misinterpreted as requiring a different speech act) were also noticed by Bardovi-Harlig in her 2009 study with the same methodology as the current study. She concluded that, "learners can only use a conventional expression favored by NSs if they recognize the expression and they interpret the relevant context as requiring a speech act of the same illocutionary force, the pragmatic strategy, and the same content. If any one of these does not align, the conventional expression will not be used" (Bardovi-Harlig, 2009, p. 782). It is clear that learners in the present study struggled with one or more of the criteria above, which

lead to low production levels overall. Of the three types of errors, the third – misinterpretation of the scenario as requiring a different speech act – demonstrates the largest gap in L2 pragmatic knowledge, and seems ripe to cause the largest communicative and interpersonal problems for the learner. Most native speakers can easily understand and will quickly excuse basic errors of vocabulary and syntax as non-native speakers attempt to correctly use conventional expressions, and such errors would likely be attributed to problems with language, not to the non-native speaker themselves. However, using a conventional expression of an entirely different (and perhaps inappropriate) illocutionary force could, in the wrong situation, bring judgment upon the speaker themselves, leading native listeners to attribute the mistake to personality factors (i.e. rudeness) rather than language issues. Certainly, no one wants or expects to be invited to help clean a messy apartment unexpectedly!

Finally, we will analyze learners' total production score as compared to our independent variables (L2 proficiency, length of stay, and intensity of interaction – see appendices H, I and J for full coded data sets). Figures for average recognition score across proficiency, length of stay, and intensity of interaction can be seen below in Figures 4, 5, and 6, respectively.

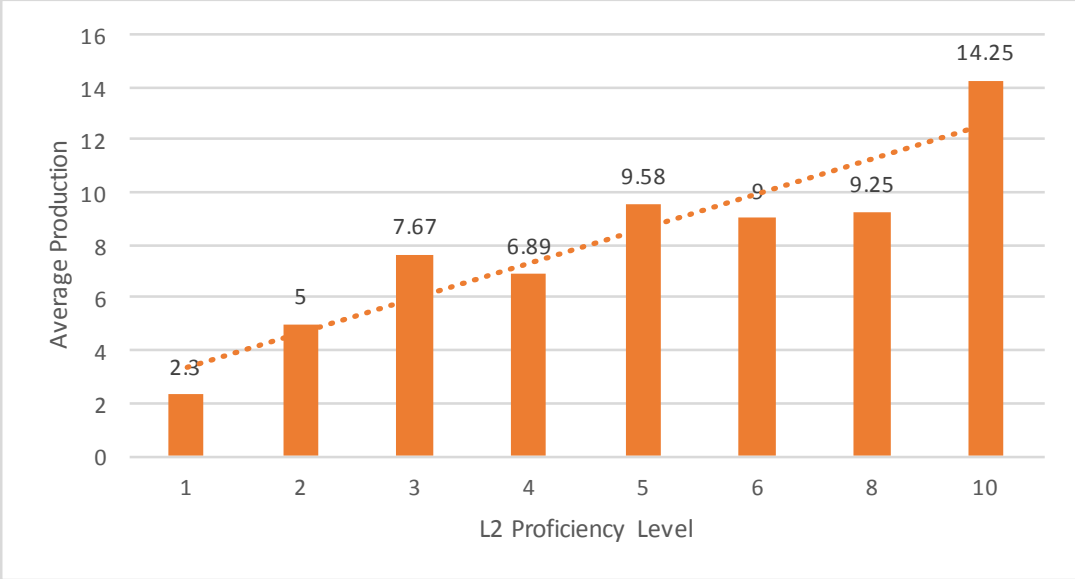

Figure 4. Average Production Score Across Proficiency Levels

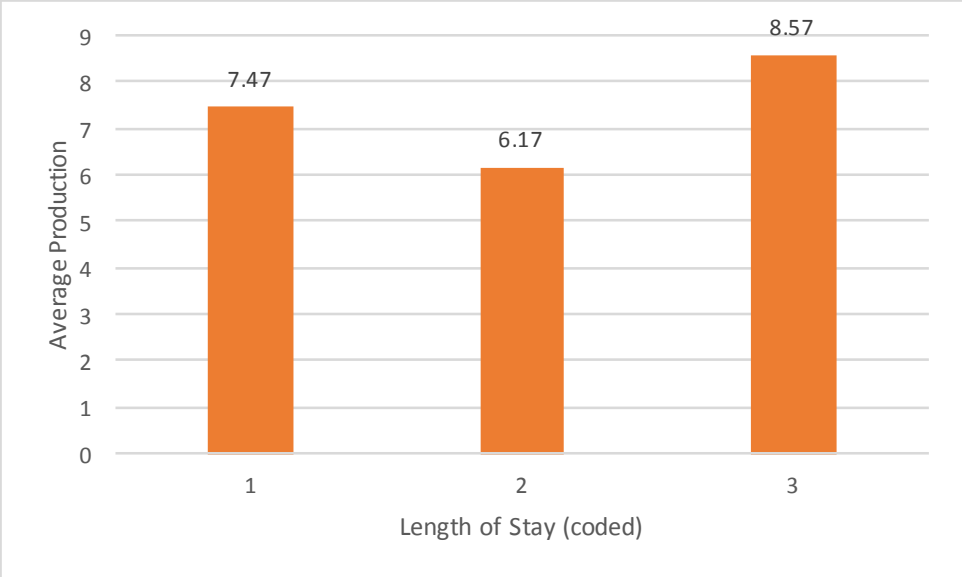

Figure 5. Average Production Score Across Length of Stay

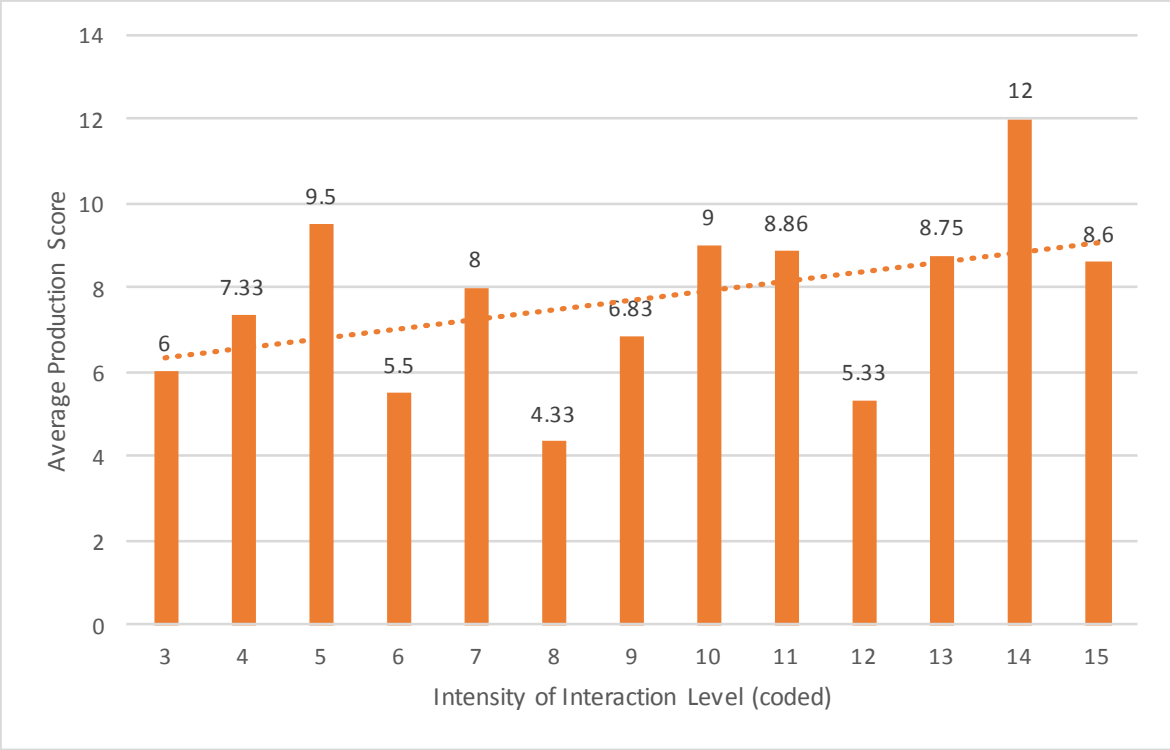

Figure 6. Average Production Score Across Intensity Levels

There was a statistically significant difference demonstrated on the production task between proficiency levels at the $p < 0.01$ level as determined by a one-way ANOVA ($F(3, 46) = 35.28$, $p = .000$; Table 4). Post hoc comparisons using the Tukey B test indicated that the mean score for all four eventual groupings were significantly different: the group including proficiency levels 1 and 2 ($M = 2.55$, $SD = 1.69$) was significantly different than the grouping of proficiency levels 3 and 4 ($M = 7.20$, $SD = 1.97$), which was significantly different from the grouping of proficiency levels 5 and 6 ($M = 9.44$, $SD = 2.03$), which was significantly different from the grouping of proficiency levels 8 and 10 ($M = 11.75$, $SD = 2.96$).

There was also a significant effect for intensity on initiating production scenarios at the $p < .01$ level ($F(3, 46) = 4.358$, $p = .009$; Table 6). Post hoc comparisons using the Tukey B test indicated that the mean score of the grouping of intensity levels 9 -11 ($M = 1.10$, $SD = 1.10$) was

significantly different than the grouping of intensity levels 12-15 (M = 2.92, SD = 1.44). The grouping of intensity levels 7-8 (M = 1.23, SD = 1.36) was also significantly different from the intensity levels 12-15 group. However, the grouping of intensity levels 9-11 did not significantly differ from either the grouping of intensity levels 3-6 (M = 1.86, SD = 1.56) or the grouping of intensity levels 7-8. There was also no significant different between the means of the grouping of intensity levels 3-6 from the means of the grouping of intensity levels 12-15.

There was also a marginally significant effect found for intensity overall on the production task (F(3, 46) = 2.616, p = .062). No significant difference of performance on the production task was demonstrated for length of stay.

Table 6

One-Way Analysis of Variance for Intensity on Dependent Variables

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
RecogScore	Between Groups	15.568	3	5.189	.780	.511
	Within Groups	305.952	46	6.651		
	Total	321.520	49			
ProdTasksScoreI	Between Groups	25.535	3	8.512	4.358	.009
	Within Groups	89.845	46	1.953		
	Total	115.380	49			
ProdTasksScoreR	Between Groups	41.301	3	13.767	1.881	.146
	Within Groups	336.699	46	7.320		
	Total	378.000	49			
ProdTasksScoreIR	Between Groups	99.361	3	33.120	2.616	.062
	Within Groups	582.419	46	12.661		
	Total	681.780	49			

Chapter 5

Discussion

The results of this study showed that L2 proficiency had a significant positive effect on both recognition and production of conventional expressions, while intensity of L2 environmental interaction demonstrated significance on the initiating scenarios within the production task, and only marginal significance overall on the production task. Length of stay had no significant effect on either task whatsoever. Further discussion will be organized by each of the independent variables investigated in the study, including a discussion of results and consideration of future areas of investigation.

L2 Proficiency

As previously mentioned, L2 proficiency demonstrated significant positive effects on both the recognition and production tasks. This effect was particularly pronounced on the production task, which the one-way ANOVA analysis found to be significant at the $p < 0.001$ level across both initiating and responding items in the task. These results are somewhat different than those found by Bardovi-Harlig and Bastos in their 2011 study, where proficiency was found to only significantly affect the production task (also at the $p < .001$ level).

It is not surprising that proficiency demonstrated a positive effect on both recognition and production, as this also imitates results found by Bardovi-Harlig in her 2009 study, and as numerous previously mentioned studies also found strong effect sizes for proficiency on L2 pragmatics (Bardovi-Harlig, 2009; Barón and Celaya, 2010; Bouton, 1992; Garcia, 2004; Roever, 2006; Taguchi, 2009 & 2011). As Bardovi-Harlig and Bastos conclude in their 2011 study, “proficiency contributes both to the well-formedness of the conventional expression (pragmalinguistic knowledge) and the use of conventional expression (sociopragmatics

knowledge)," and certainly both types of knowledge were needed to successfully complete the two tasks done here – particularly the production task (Bardovi-Harlig & Bastos, 2011, p. 374).

In fact, the design of the study is such that language proficiency knowledge might have interfered with dependable data on pragmatic knowledge. The two tasks, particularly the production, are quite text and language dependent. The learners in this study needed a rather high level of L2 proficiency to correctly understand the prompts for the scenarios in the production task. Anecdotally, it was interesting to note that a number of students, upon seeing the prompt of the very first scenario, immediately asked me what the word "puddle" meant. Obviously, I was unable to help them, but at that point the participant was forced to make a "best guess" with incomplete contextual knowledge. Without a clear understanding of certain key words or syntax in the prompts (lexical and grammatical knowledge), it is unlikely that the participants would have the opportunity to demonstrate their pragmatic knowledge – whether sociopragmatic or pragmalinguistic. As we have seen in the literature review, pragmatic and grammatical knowledge may represent separate language constructs, and thus it should not be surprising that a task which depends heavily on grammatical or lexical proficiency shows a clear effect for L2 proficiency on performance of that task. It would be fascinating to design a similar task which attempts to eliminate the confounding language-dependence altogether to see if the participants demonstrate different results than those found here. Such a task could perhaps involve soundless video clips, which would not rely on language proficiency to access pragmatic knowledge.

L2 proficiency may also have demonstrated such impressive significance in this study due to the fact that the range of L2 proficiency was much larger here than that studied in the original Bardovi-Harlig 2011 study. The original study only encompassed 4 contiguous levels of proficiency, while this study spanned 8, reaching into highly proficient segments of the ESL

population at the university. The non-native English graduate students (proficiency level 10) appreciably outperformed all other proficiency levels, particularly on the production task. It is probable that without this segment of participant data, proficiency level would not have demonstrated as large an effect on the production task.

Length of Stay

As found in the original 2011 Bardovi-Harlig and Bastos study, length of stay (LOS) demonstrated no significant effects for either recognition or production of conventional expressions. This finding in the current study is perhaps even more significant than the same result found by Bardovi-Harlig and Bastos, as their original LOS data fell within a very small range (1 to 8 months) and remained fairly stable across proficiency levels. As discussed earlier in the literature review, other studies have found that some aspects of pragmatic competence seem to take longer to learn than others (Kecskes, 2000; Taguchi, 2007). This led Bardovi-Harlig and Bastos to conjecture that perhaps if their 2011 data set had included students with much longer LOS, the variable would have demonstrated a stronger effect on conventional expression recognition and/or production. The participants in this study, however, did demonstrate a wide range of LOS (from 1 – 42 months), and LOS was still not found to have a significant effect.

Still, as mentioned in so much of the research into pragmatic development, LOS is a complex variable. The interplay between LOS, L2 proficiency and intensity of interaction in the L2 environment is multifaceted. As Matsumura, Taguchi, and Bardovi-Harlig all found in earlier studies, LOS may have outsized effects on pragmatic development for those L2 learners who take advantage of it (intensity of interaction), and may have an even larger effect for those whose proficiency is sufficiently advanced to allow them to notice and process more salient features in the L2 environment as they interact with it. As Bardovi-Harlig and Bastos conclude, “in general,

more of a good learning situation may be better, but more of a bad situation may not be. Thus, LOR not only measures the duration of stay in the target environment, but also encompasses the variables that characterize the stay" (Bardovi-Harlig and Bastos, 2011, p. 376).

Intensity of Interaction

Intensity of interaction with the L2 environment was found to only have a significant effect on production of conventional expressions in initiating scenarios, demonstrated at the $p < .01$ level. It is perhaps not surprising that, of the two (responding and initiating production scenarios), only the initiating scenarios demonstrated an effect for intensity of interaction. As discussed earlier, the production task relied heavily upon language knowledge (proficiency), and L2 proficiency demonstrated a large significant effect on the task. This is a potential flaw in the task design, making it difficult for participants to express pragmatic knowledge (perhaps acquired through environmental interaction) without L2 proficiency. Within the production task, the initiating scenarios proved to be more difficult for both native and non-native speakers, with lower rates of production across the board. If intensity of interaction were to demonstrate any effect on production rates, it is logical that it would be demonstrated in the initiating scenarios, where there were fewer linguistic cues for an appropriate utterance and thus the participant must rely more heavily on their pragmatic competence.

However, it is fairly surprising that intensity of interaction did not also demonstrate an effect on conventional expression recognition, given that Bardovi-Harlig and Bastos found intensity of interaction to have a significant effect on both recognition and production at the $p < .01$ and the $p < .05$ level, respectively.

There are numerous possibilities for these results. One is simply that the recognition task, being essentially a self-report task, demonstrated a ceiling effect for self-reported recognition. As

discussed in the analysis section, recognition scores across nearly all conventional expressions were quite high, with only three (out of twenty five) expressions showing an average recognition rating of less than 1.00 (indicative of "I sometimes hear this" average recognition), and only one expression rated as having lower than 50% average dichotomous recognition. If nearly all items on the recognition task were reported as recognized by learners, and recognized at high levels, then there is simply not much space for the three independent variables to demonstrate differential effects on such recognition. The fact that the original study (Bardovi-Harlig & Bastos, 2011) did find an effect for intensity of interaction on the recognition task may be due to the fact that their data demonstrated less of the proposed "ceiling effect"; there were twice as many expressions (six) with an average recognition rating of less than 1.00, and three times as many expressions (three) with an average dichotomous recognition of less than 50%.

Another possible cause of the lack of demonstrated strong effect for intensity is the obvious problematic nature of self-report data. The intensity of interaction data was all based on an open-format self-report, which participants are notoriously bad at doing accurately. The decision for the open format was made due to the desire to not prematurely segment the wide possible range of learner data, and yet many of the data points reported under the intensity variable seemed to strain credulity. Some of the highest figures reported include speaking to native/non-native English speakers for 28, 40, 70 or 90 hours per week, a truly impressive feat for anyone, let alone an English learner! Other dubious data included reports of watching television or movies for 35, 40, or 50 hours a week, using the Internet in English for 36, 50, or 70 hours a week, and spending 36, 48, 50, 65, or 80 hours a week on social media in English. Although the data range was segmented into approximate thirds to help moderate the effect of

such outliers, it is possible that these wild figures reported for the intensity of interaction data distorted any real effects that might be present.

Another obvious possibility for the lack of effect of the intensity measure is the addition in this study of two new variables into the "intensity" score: time spent using the Internet in English, and time spent using social media in English. Although it was hypothesized that these variables would share the positive effect that the three previous measures (time spent talking to native speakers, time spent talking to non-native speakers, time spent watching TV or movies in English) demonstrated on pragmatic development, it is possible that they do not have as strong an influence, or indeed have the opposite effect. As Zheng et al. noted in their 2009 study, "simply putting children in a virtual space with a hope that they will communicate and pick up idioms and other language use is naïve" (Zheng et al., 2009, p. 505). Although the studies previously mentioned in the literature review demonstrate the potential of digital media to support L2 language development, these studies seem to be conjectural early research in a fairly new field. The articles surveyed for this study were quasi-experimental or qualitative in nature, and none were able to demonstrate statistically significant effects for digital engagement on L2 development.

It's also possible that time spent using the Internet or social media in English falls into the classification of *noninteractive* conversational input, as proposed by Bardovi-Harlig and Bastos (2011). Although their study included both (interactive and noninteractive) in its "intensity" measure, Bardovi-Harlig and Bastos conjectured that further research could perhaps be more selective in dividing "intensity of interaction" measures into activities that require responses (*interactive communication,* such as talking to native and non-native speakers or synchronous Internet chat) and those which do not (*noninteractive* – such as watching

TV/movies and surfing the web). They speculated that perhaps the true effect for "intensity of interaction" came mostly from *interactive* intensity variables. If this is indeed true, and if both of the new variables introduced in this current study fall into the *noninteractive* classification, then these new variables could have lessened the previously-demonstrated effect for intensity of interaction.

That the use of the Internet or social media could potentially be classified as *noninteractive* is a further cause for concern if we consider that the use of these tools for communication by L2 learners is on the rise. In fact, the majority of participants in this study self-reported their Internet and social media use in English to far outweigh time spent speaking to native or non-native speakers in English. If further research does indeed prove that Internet/social media use in an L2 does not afford the same opportunities for L2 language development (including pragmatics), then the current lack of effect for "intensity of interaction" demonstrated in this study is not at all surprising – and one might expect that as more communication moves into a digital space, L2 learners will demonstrate lower and lower levels of pragmatic competence.

And yet perhaps such a sentiment is prematurely pessimistic. Most individuals familiar with the Internet and social media know that these digital tools are used for various purposes – and thus it is not surprising that their use does not necessarily correlate with a uniform effect across learners. We can very easily imagine that different learners use the Internet and social media for different purposes, and with corresponding differing effects on their L2 development. Indeed, further research may prove that Internet and social media use varies in effect depending on who is using what tool, and for what purpose. This was the conclusion of Thorne, Black and Sykes, in their 2009 survey of emerging technologies for L2 development, who stated that

"learners…adopt various styles of participation, which ultimately lead to varied individual experiences and learning outcomes" (Thorne, Black and Sykes, 2009, p. 812). This sentiment seems quite similar to conclusions drawn in the earlier literature review about the effect of length of stay on language development. Further research is clearly needed into the communicative nature of Internet and social media use, and these tools' varied effects on L2 pragmatic development.

Chapter 6

Conclusion

This study, a near replication of Bardovi-Harlig and Bastos' 2011 work, was an attempt at further understanding nonnative speaker recognition and production of conventional expressions, and an examination of how assorted learner variables affect pragmatic competence. It is clear that pragmatic competence is a multifaceted construct involving issues of general L2 proficiency, length of L2 environmental exposure, and the type and amount of interaction with the L2 environment. The data from this study particularly supported previous research demonstrating the broad effect that L2 proficiency can have on pragmatic development, and the potential of intensity of interaction to also impact such development. Although this study added to the abundant literature by exploring facets of environmental interaction previously unstudied (internet and social media use in the L2), it is apparent that further research must continue to examine and quantify interaction with the L2 environment so that we can better understand how to help our learners develop true pragmatic awareness and competence.

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APPENDICES

APPENDIX A

Consent Form

Second Language Learners' Recognition and Production of Conventional Expressions

Informed Consent

Code Number #_____

You are invited to participate in a research study on the comprehension and production of conventional expressions by learners who study English as Second Language. You were selected as a possible participant because you are studying English as a Second Language in the Intensive English Center at St. Cloud State University, or because you are an ESL student at St. Cloud State University. This research project is being conducted by Amanda DeBoer, a graduate student in the TESL MA Program, English Department at St. Cloud State University, as a partial fulfillment for her thesis.

Purpose

The purpose of this study is to identify what kinds of conventional expressions ESL students understand and produce, and what kind of variables affect their understanding of such expressions.

Procedures

If you decide to participate, you will be asked to fill out short a questionnaire composed of 8 questions, which may take about 5-10 minutes. You will also complete two computer-delivered tasks using audio. In the first task, you will listen to 60 expressions and mark on an answer sheet how often you hear the expression. In the second task, you will listen to 32 different scenarios and record your responses to these scenarios. These computer-delivered tasks will take up to 40 minutes to complete. In total, your participation should take approximately 50 minutes.

For classification and comparison purposes, the researcher might also use your scores on previous language placement tests – including scores on the TOEFL of ACCUPLACER. This data will be obtained from IEC or College ESL placement tests or admissions records.

Risks

The risks in this study are minimal. If you feel nervous or experience any discomfort when you are doing the questionnaire or completing the task, you may withdraw at any time. In addition, there is a small risk that you could be identified through the background information from the questionnaire or audio recordings. To minimize these risks, a code number will be assigned to test data, questionnaires, spreadsheets of questionnaire results, procedure data, transcripts, and audio files for the computer-delivered tasks. Individual participants will be identified by code number or pseudonyms in my thesis. All the questionnaires and answer sheets will be kept in a locked drawer in my office, and the spreadsheet for the questionnaire, audio files and data analysis will be stored on my file space on my university account, which is password-protected. Only I can link your identity to your response. Your privacy will be absolutely protected.

Benefits

There is minimal benefit to you for participating in this study. You will receive a small amount of candy or pastry for your participation. You also enjoy the benefit of helping researchers better understand the topic at hand.

Confidentiality

Your name will be kept confidential and will not be published anywhere. You will not be personally identified in the final report. All written as well as digital data will be destroyed within three years after completion of my thesis. To prevent identification of research subjects, data will be presented in tables for different subgroups. My thesis will be available to read in the library upon completion. I will share my results and findings in ways including, but not limited to, presentations in conferences, publication of articles or books based on this research.

Contact information

If you have any questions right now, please ask. If you have additional questions later, you may contact me at deam1302@stcloudstate.edu, or my advisor, Dr. Choonkyong Kim, at ckim@stcloudstate.edu. You will be given a copy of this form for your records. If you would like to know the result of this research, please write down your email address at the end of this consent form. I will send you a summary of this study by email when it is completed.

Voluntary Participation/Withdrawal

Participation is voluntary. Your decision whether or not to participate will not affect your current or future relations with St. Cloud State University, me, or my advisor, Dr. Choonkyong Kim, the Intensive English Center, or the English Department of SCSU. If you decide to participate, you are free to withdraw at any time without penalty.

Acceptance to Participate

Your signature indicates that you are at least 18 years of age, you have read and understood the information provided above, you consent to allow the researcher to access your scores from previous language tests, and you have consented to participate in the tasks. You may withdraw from the study at any time without penalty after signing this form.

Subject Name (Printed) _____

Subject Signature_____

Date_____

Yes, I would like to know the result of this thesis. Please send me an email.
Email: _____

Researcher Name (Printed) _____

Researcher Signature_____

Date_____

APPENDIX B

Simplified Consent Form

INFORMED CONSENT

In this project, we need your help to understand how English learners understand and use certain English expressions. You will be asked to identify and produce common English expressions. This project is being done by Amanda DeBoer as part of her thesis requirements. Her advisor is Dr. Choonkyong Kim.

NOTE: This document is also available in a more detailed form.
If you need a translator to understand this information, please ask.

Are you at least **18 years old**? Yes _____ No _____

If you answered NO, please stop. Thank you.

Tasks:

If you decide to participate today, you will do three tasks:

1. **Task 1** – Listen to expressions using headphones and indicate if you recognize it
2. **Task 2** – Listen to situations using headphones and say something in response
3. **Task 3** – Fill out a questionnaire about how often you use English

---

Please check the statements if you understand and agree:

- ✓ This is NOT a test.
- ✓ Your participation is **voluntary**. You can withdraw at any time if you want to.
- ✓ Your only reward for participating in the study is some candy or pastry at the end of the study.
- ✓ Your participation does NOT earn extra credit or affect your grades.
- ✓ Your participation does NOT affect your relationship with Saint Cloud State University, the Intensive English Center, the College ESL program, the researcher, or Dr. Kim.
- ✓ Your name will NOT be used. You will receive an anonymous identification number. Only Miss DeBoer knows your identity.
- ✓ The results of this study might be published or presented.
- ✓ The data will be used ONLY for academic research. If you are interested in the results of this study, we can share that information. Please write your email at the bottom if you want results from the study.

If you understand and agree with the statements, and you give your permission to use the data for research, please sign and date below.

Name (print): _____ **Signature:** _____

Date: _____

For questions, contact:
Amanda DeBoer
MA TESL graduate student
deam1302@stcloudstate.edu

APPENDIX C

Recognition Task – List of Conventional Expressions and Detractor Items

List of conventional expressions (taken from Bardovi-Harlig & Bastos, 2011) and detractor items (Bardovi-Harlig, 2010). Italicized portions of detractor items were modified by Bardovi-Harlig from a typical conventional expression to create a less common (and non-conventional) expression.

Conventional Expressions	**Detractor Items**
1. Be careful	1. Be *cautious*!
2. Be quiet	2. Be *silent*
3. Can I get a ride?	3. Can I get a *drive*?
4. Can I leave a message?	4. Can I leave a *note*?
5. Do you have a minute?	5. Do you have an *hour*?
6. Excuse me	6. *You* excuse me
7. Excuse the mess	7. Excuse the *dirt*
8. I gotta go	8. I gotta *leave*
9. I was wondering	
10. I'd love to	
11. I'm just looking	9. I'm just *seeing*
12. I'm late	10. I'm *tardy*
13. I'm looking for	
14. I'm sorry	
15. Keep it down	11. *Make* it down
16. My place	12. My *pad*
17. Nice to meet you	13. Nice to *introduce* you
18. Nice to see you	14. Nice to *look at* you
19. No problem	
20. No thanks	
21. Other plans	15. Other *activities*
22. Shut up	16. *Quiet* up
23. Sure thing	17. *Certain* thing
24. Thank you for having me	
25. Thank you	
26. Thanks for your time	18. *I thank you* for your time
27. That works for me	
28. That'd be great	
29. The place is messy	19. The place is *untidy*
30. Want a ride?	20. Want a *drive*?
31. Watch out!	21. Watch *up*!
32. Would you like to?	22. *Could* you like to?
33. Would you mind?	23. *Could* you mind?
34. You too	24. You *also*
35. You're welcome	25. *You are* welcome

APPENDIX D

Production Task – Instructions for and List of Initiating Utterances

In this part of the task, you will see a description on the screen. Read along with the speaker. Imagine that you are speaking to a friend. When you see "you say" on the screen, speak to your friend. Say the first thing you think of. You have seven seconds to respond. Speak clearly.

Here are two examples.
Example A:
The phone rings. You pick it up. (aural and written)
You say: (screen only)
NNS respondent: "*Hello*" (oral only)
Example B:
You are talking to your friend from a cell phone on a noisy city street. You couldn't hear something she said. (aural and written)
You say: (screen only)
NNS respondent: "*Could you say that again?"* (oral only)

Now, let's begin. This part will take about 10 minutes.

Initiators. All scenarios are followed by a visual prompt on a new screen that says *You say:* (The corresponding expression on the recognition task is given in the right-hand column.)

Item	Scenario	Expression
I-1	You see your friend standing on a chair trying to reach a book at the top of the bookshelf. You know that the chair she is standing on has a broken leg.	Be careful!
I-2	Your mid-term exams are next week. You and some friends have decided to study together. You have the biggest apartment, so you want to invite everyone to study there.	My place.
I-3	After class you're walking to the library with a friend. It's been raining all morning, and you notice that your friend is about to step into a big puddle.	Watch out!
I-4	You are in the library and you see an old friend who you have not seen for a long time. You talk for a little while and as you are leaving you say:	Nice to see you.
I-5	Many of your friends are going to the movies, but you don't have a car. You ask one of your friends for a ride in his car.	Can I get a ride?
I-6	You had a birthday party in your home yesterday. The apartment is untidy and you are just cleaning up. Your friend, John, comes by. You invite him in.	Excuse the mess.
I-7	Your roommate is standing in the kitchen by the cupboard. You ask him for a glass.	Would you mind…?

I-8	You made an appointment with your teacher. Unfortunately you arrive 25 minutes late for the meeting, and the teacher is already leaving.	I'm sorry / I'm late.
I-9	You are in the theater. There is a group of young teenagers sitting behind you. They are talking so loudly that you cannot hear a word.	Be quiet / Keep it down / Shut up
I-10	You stop by your teacher's office to ask a question about the assignment. She takes time to answer your question. You know she is very busy, so before you say good-bye, you say:	Thanks for your time.
I-11	You are at the bus stop. While waiting, you are talking with your friend on your cell phone. The bus arrives and you need to hang up.	I gotta go.
I-12	You and a friend are about to cross the street when you see the campus bus coming. Your friend does not see the bus and is about to step in front of it.	Watch out!
I-13	You call your friend. His roommate answers the phone and tells you that your friend is not home. You would like the roommate to tell your friend something.	Can I leave a message?

APPENDIX E

Production Task – Instructions for and List of Responding Utterances

In this part of the task, you are talking to your friend, and your friend speaks first. When your friend finishes, you answer. You have 7 seconds to respond. Remember to speak clearly.

Here are two examples.

Example A:

You see your old friend at a party. (aural and written)
Friend: How are you? (aural only)
You say: (screen only)
NNS response: "*Good, how are you?*" (oral only)

Example B:

Your friend needs some help moving a heavy old desk out of her dorm room. (aural and written)
Friend: Could you help me move my desk? (aural only)
You say: (screen only)
NNS respondent: "*I'd be happy to."* (oral only)

Now, let's begin. This part will take about 18 minutes.

Replies: All scenarios are followed by an oral turn and visual prompt on a new screen that says *You say:*
(The corresponding expression on the recognition task is given in the right-hand column.)

Item	Scenario	Expression
R-1	You're talking outside with your longtime neighbor and he tells you about his dog's accident. Audio only (AO): "Last Sunday my dog got hit by a truck."	I'm (so) sorry.
R-2	You need to pick up a book at the bookstore, but you don't have any free time today. (AO): "I can pick it up for you."	That'd be great.
R-3	There is a reception on campus. The organizer invited you and a few other students as well. It is getting late, and you decide to leave. You go over to the organizer. (AO): "Thanks for coming."	Thanks for having me.
R-4	You go to a clothing store and you need to find a new shirt. A salesperson approaches you. You want the salesperson's assistance. (AO): "Can I help you?"	I'm looking for…
R-5	You are waiting in line at the movie theater and the person in front of you says, (AO): "Could you hold my place in line? I'll be right back."	No problem.
R-6	You are in the supermarket. After you pay, you are ready to pick up your bags. The cashier says, (AO): "Have a nice day!"	You too.

R-7	You made an appointment with your teacher. Unfortunately you arrive five minutes late for the meeting. Your teacher says, (AO): "Hello. Come on in."	I'm sorry / I'm late.
R-8	You borrowed a book from your friend, John. You promised to return it today. He needs it for his presentation in class tomorrow. However, you left the book at home. You meet him in class. (AO): "By the way, did you bring my book? I really need it for my presentation tomorrow."	I'm (so) sorry.
R-9	You give your classmate a ride home. He lives in the building next to yours. He gets out of the car and says, (AO): "Thanks for the ride."	No problem.
R-10	Your teacher invites the whole class to dinner at his house. The dinner is on Friday evening. You would actually prefer to spend time with your friends that night. He asks you if you can come to his house, (AO): "Can you come on Friday evening?"	Other plans.
R-11	You and your classmates are deciding where to study for the upcoming exam. After some discussion, everyone seems to agree on the library, which is good for you because you live near there. (AO): "So, is the library ok for everyone?"	That works for me.
R-12	You go to a clothing store and you need to find a new shirt. A salesperson approaches you. You don't want the salesperson's assistance. (AO): "Can I help you?"	I'm just looking.
R-13	You need to talk to your teacher. You go to his office during office hours to see if he has time to talk. His office door is open, you knock. (AO): "Come in."	Do you have a minute?
R-14	Your teacher invited the whole class to his house next Saturday. You are very happy that he has invited you, and you would like to go. When you are leaving the class, the teacher says, (AO): "How about you? Will you be able to join us this Saturday?"	I'd love to.
R-15	Your friend introduces you to his new roommate. (AO): "This is my new roommate, Bill."	Nice to meet you.
R-16	You go to ask your teacher if he will be having office hours tomorrow, and he tells you about his father. (AO): "I won't be having office hours tomorrow. My father died, and I have to go to the funeral."	I'm (so) sorry.
R-17	You have been studying very hard for your test. But on the morning of your test, your alarm does not go off and you oversleep. You ask your teacher for a make-up test. (AO): "Okay. I'll give you a make-up test this time, but don't let it	Thank you (very/so) much.

	happen again."	
R-18	It's raining really hard and you are walking to the bank. A friend pulls his car over to offer you a ride. (AO): "Hey, want a ride?"	That'd be great / Thank you.
R-19	You are having dinner at a friend's house. Your friend offers you more food, but you couldn't possibly eat another bite. (AO): "Would you like some more?"	No, thanks.

APPENDIX F

Student Questionnaire

Amanda DeBoer Thesis Questionnaire

Please answer all of the following questions. If you don't understand something, ask Amanda DeBoer.

* Required

1. **1. Name** *
   What is your name?

2. **What is your participant ID code?** *

3. **2. English level** *
   What is your level in the Intensive English Center (IEC) or College ESL?
   Mark only one oval.
   - ◯ IEC Pre-Level 1
   - ◯ IEC Level 1
   - ◯ IEC Level 2
   - ◯ IEC Level 3
   - ◯ IEC Level 4
   - ◯ IEC Level 5
   - ◯ College ESL 100-level
   - ◯ College ESL 200-level
   - ◯ no ESL-specific courses (regular college/graduate student)

4. **3. Length of Stay** *
   How many MONTHS have you been in the United States (or other English-speaking country)?

5. **4. Speaking in English - native speakers** *
   Outside of class, do you talk with native English speakers in English?
   Mark only one oval.
   - ◯ Yes
   - ◯ No

6. **If you said YES to #4, how many HOURS per week?** *

7. **5. Speaking in English - non-native speakers** *
   Outside of class, do you talk with international students or other non-native speakers in English?
   Mark only one oval.
   - ◯ Yes
   - ◯ No

8. **If you said YES to #5, how many HOURS per week?** *

9. **6. Television or movies** *
   Do you watch television (TV) or movies in English?
   Mark only one oval.
   - ◯ Yes
   - ◯ No

10. **If you said YES to #6, how many HOURS per week?**

11. **7. Internet Use** *
    Do you use popular internet sites in English?
    Mark only one oval.
    - ◯ Yes
    - ◯ No

12. **If you said YES to #7, which internet sites do you use in English?** *
Check all that apply.

- [ ] none
- [ ] Google
- [ ] Bing
- [ ] Wikipedia
- [ ] Yahoo!
- [ ] CNN
- [ ] BBC
- [ ] MSN
- [ ] The Huffington Post
- [ ] Al Jazeera
- [ ] Alibaba
- [ ] Amazon.com
- [ ] BlogSpot
- [ ] WordPress.com
- [ ] Ebay
- [ ] Ask.com
- [ ] PayPal
- [ ] Craigslist
- [ ] Imgur
- [ ] Reddit
- [ ] Netflix
- [ ] ESPN.com
- [ ] Other: _____

13. **8. How many HOURS a week do you use internet sites in English?** *

_____

14. **9. Social Media Use** *
Do you use social media sites or apps in English?
Mark only one oval.

- ◯ Yes
- ◯ No

15. **If you said YES to #9, which social media sites or apps do you use in English?** *
Check all that apply.

- [ ] none
- [ ] Facebook
- [ ] Twitter
- [ ] Instagram
- [ ] Tumblr
- [ ] Pinterest
- [ ] YouTube
- [ ] Snapchat
- [ ] LinkedIn
- [ ] Google+
- [ ] Flickr
- [ ] Yelp
- [ ] Viber
- [ ] Other: _____

16. **10. How many HOURS a week do you use social media site or apps in English?** *

_____

APPENDIX G

Production Task – Native Speaker Responses and Variation

Item	Scenario	Expression Produced by Native Speakers, including variation Original expression provided by Bardovi-Harlig & Bastos (2011) in bold type.	Final Accepted Expression (including variations)
I-1	You see your friend standing on a chair trying to reach a book at the top of the bookshelf. You know that the chair she is standing on has a broken leg.	**Be careful!** Be careful! (n = 9) Be really careful (n = 1) Careful (n = 3)	***(Be) careful*** (n = 12)
I-2	Your mid-term exams are next week. You and some friends have decided to study together. You have the biggest apartment, so you want to invite everyone to study there.	**My place** My place (n = 14) My apartment (n = 7)	***My place*** (n = 14)
I-3	After class you're walking to the library with a friend. It's been raining all morning, and you notice that your friend is about to step into a big puddle.	**Watch out*!*** Watch out! (n = 15) Look out (n = 3) Watch *it* (n = 1)	***Watch out!*** (n = 15)
I-4	You are in the library and you see an old friend who you have not seen for a long time. You talk for a little while and as you are leaving you say:	**Nice to see you.** Nice to see you (n = 1) See you around (n = 1) See you later (n = 4) Catch you later (n = 1) Great to see you (n = 2) Good to see you (n = 2) Great seeing you (n = 1) Catch up (n = 5) {*adj.*}{*to see/seeing*} *you (*n = 6)	No predominant phrase meeting 50% threshold
I-5	Many of your friends are going to the movies, but you don't have a car. You ask one of your friends for a ride in his car.	**Can I get a ride?** Can I get a ride? (n = 5) Could I get a ride? (n = 2) Can I catch a ride? (n = 2) Could I catch a ride (n = 2) Can I get a lift? (n = 2)	***{Can/could} I {get/catch} a {ride/lift}?*** (n = 13)

		Could you give me a ride? (n = 2) Is it okay if I get a ride (n = 1) Is it all right if I catch a ride (n = 1) Do you mind (n = 2) Would you mind (n = 1)	
I-6	You had a birthday party in your home yesterday. The apartment is untidy and you are just cleaning up. Your friend, John, comes by. You invite him in.	**Excuse the mess.** Excuse the mess (n = 0) Sorry about the mess (n = 7) Sorry for the mess (n = 2) Pardon the mess (n = 1) Ignore all the mess (n = 1) Don't mind the mess (n = 2)	***{Sorry about / sorry for / pardon / don't mind} the mess*** (n = 12)
I-7	Your roommate is standing in the kitchen by the cupboard. You ask him for a glass.	**Would you mind…?** Would you mind…? (n = 0) Can you get me … (n = 3) Could you get me … (n = 2) Can you hand me… (n = 1) Could you hand me…. (n = 2) Can you grab me… (n = 3) Could you grab me… (n = 3)	***{Can/Could} you {get / grab / hand} me…?*** *(n = 14)*
I-8	You made an appointment with your teacher. Unfortunately you arrive 25 minutes late for the meeting, and the teacher is already leaving.	**I'm sorry / I'm late.** I'm so sorry I'm late (n = 5) I'm so sorry that I'm late (n = 1) I'm so sorry (n = 2) I am so sorry (n = 2) I'm really sorry (n = 1) I'm really sorry I'm late (n = 1) I'm really really sorry (n = 2) I'm very sorry (n = 1) I'm terribly sorry (n = 1) I'm very sorry that I'm late (n = 1) I'm sorry I'm so late (n = 1) So sorry I'm late (n = 1) Sorry I'm late (n = 2)	***{I am / I'm}* (intensifier) *sorry (that) (I'm late)*** (n = 21)
I-9	You are in the theater. There is a group of young teenagers sitting behind you. They are talking so loudly that you cannot hear a word.	**Be quiet** **Keep it down** **Shut up** Be quiet (n = 8) Keep it down (n = 4)	***Be quiet*** (n = 8) ***Keep it down*** (n = 4)

		Shut up (n = 2) Would you mind keeping it down (n =1) Quiet down (n = 1)	
I-10	You stop by your teacher's office to ask a question about the assignment. She takes time to answer your question. You know she is very busy, so before you say good-bye, you say:	**Thanks for your time.** Thanks for your time (n = 3) Thank you for your time (n = 3) Thank you so much for your time (n = 2) Thanks so much for your time (n = 1) Thanks so much (n = 4) Thanks for having time (n = 1) Thanks for your help (n = 1) Thanks for taking the time (n = 2) Thank you for giving me your time (n = 1) *{Thanks / thank you} (so much) for your time* (n = 9)	No predominant phrase meeting 50% threshold
I-11	You are at the bus stop. While waiting, you are talking with your friend on your cell phone. The bus arrives and you need to hang up.	**I gotta go.** I gotta go (n = 11) Gotta go (n = 6) I've gotta go (n = 1) Gotta run (n = 1) Call you back (n = 2)	***({I/I've}) gotta go*** (n = 18)
I-12	You and a friend are about to cross the street when you see the campus bus coming. Your friend does not see the bus and is about to step in front of it.	**Watch out!** Watch out! (n = 7) Look out (n = 6) Wait (n = 4)	***{Look/watch} out!*** *(n = 13)*
I-13	You call your friend. His roommate answers the phone and tells you that your friend is not home. You would like the roommate to tell your friend something.	**Can I leave a message?** Can I leave a message? (n = 4) Could I leave a message? (n = 1) Can I leave you a message? (n = 1) Can you let him know… (n = 2) Could you let him know… (n = 2) Could you tell him that…(n = 3) *{Can/could} I leave (you/him) a message?* (n = 6)	No predominant phrase meeting 50% threshold

Item	Scenario	Expression Produced by Native Speakers, including variation Original expression provided by Bardovi-Harlig & Bastos (2011) in bold type.	Final Accepted Expression (including variations)
R-1	You're talking outside with your longtime neighbor and he tells you about his dog's accident. Audio only (AO): "Last Sunday my dog got hit by a truck."	**I'm (so) sorry.** I'm sorry (n = 1) I'm so sorry (n = 5) I'm really sorry (n = 1) I'm very sorry (n = 1) (I'm) sorry to hear that (n = 4) I'm so sorry to hear that (n = 3) I'm really sorry to hear that (n = 1) I'm very sorry to hear that (n = 1)	***I'm* (intensifier) *sorry (to hear that)*** (n = 17)
R-2	You need to pick up a book at the bookstore, but you don't have any free time today. (AO): "I can pick it up for you."	**That'd be great.** That'd be great (n = 6) That'd be awesome (n = 1) That would be great (n = 6) That would be wonderful (n = 1)	***That {'d / would} be {adjective}*** (n = 14)
R-3	There is a reception on campus. The organizer invited you and a few other students as well. It is getting late, and you decide to leave. You go over to the organizer. (AO): "Thanks for coming."	**Thanks for having me.** Thanks for having me (n = 5) Thank you for having me (n = 2) Thanks for inviting me (n = 3) Thank you for inviting me (n = 2)	***Thank {s / you} for {having / inviting} me*** (n = 12)
R-4	You go to a clothing store and you need to find a new shirt. A salesperson approaches you. You want the salesperson's assistance. (AO): "Can I help you?"	**I'm looking for…** I'm looking for… (n = 12) I was wondering… (n = 2) I am wondering… (n = 1) Can you help me find… (n = 2) Could you help me find… (n = 1)	***I'm looking for…*** (n = 12)
R-5	You are waiting in line at the movie theater and the person in front of you says, (AO): "Could you hold my place in line? I'll be right back."	**No problem.** No problem (n = 1) Sure (n = 13) Sure, no problem (n = 4)	***Sure (no problem)*** (n = 17)

R-6	You are in the supermarket. After you pay, you are ready to pick up your bags. The cashier says, (AO): "Have a nice day!"	**You too.** You too (n = 8) Thanks, you too (n = 12)	***(Thanks) you too*** (n = 20)
R-7	You made an appointment with your teacher. Unfortunately you arrive five minutes late for the meeting. Your teacher says, (AO): "Hello. Come on in."	**I'm sorry / I'm late.** Sorry I'm late (n = 6) I'm (really/so) sorry I'm late (n = 6) I'm (really/so) sorry that I'm late (n = 1) I'm so sorry (n = 1) Sorry for being late (n = 3)	***(I'm) (*intensifier) *sorry (that) I'm late*** (n = 14)
R-8	You borrowed a book from your friend, John. You promised to return it today. He needs it for his presentation in class tomorrow. However, you left the book at home. You meet him in class. (AO): "By the way, did you bring my book? I really need it for my presentation tomorrow."	**I'm (so) sorry.** I'm so sorry (n = 6) I'm sorry (n = 3) I'm terribly sorry (n = 1) I'm really sorry (n = 1) I am so sorry (n = 1)	***{I am / I'm}* (intensifier) *sorry*** (n = 12)
R-9	You give your classmate a ride home. He lives in the building next to yours. He gets out of the car and says, (AO): "Thanks for the ride."	**No problem.** No problem (n = 15) Sure, no problem (n = 3) Any time (n = 6) You're welcome (n = 2)	***(Sure) no problem*** (n = 18)
R-10	Your teacher invites the whole class to dinner at his house. The dinner is on Friday evening. You would actually prefer to spend time with your friends that night. He asks you if you can come to his house, (AO): "Can you come on Friday evening?"	**Other plans.** Other plans (n = 6) Previous plans (n = 1) Previous engagement (n = 1) Plans (n = 4)	No predominant phrase meeting 50% threshold
R-11	You and your classmates are deciding where to study for the upcoming exam. After some discussion, everyone seems to agree on the library,	**That works for me.** That works for me (n = 1) Works for me (n = 3) Sounds great (n = 2)	No predominant phrase meeting 50% threshold

	which is good for you because you live near there. (AO): "So, is the library ok for everyone?"	Perfect (n = 6) That's/it's great (n = 5)	
R-12	You go to a clothing store and you need to find a new shirt. A salesperson approaches you. You don't want the salesperson's assistance. (AO): "Can I help you?"	**I'm just looking.** I'm just looking (n = 13) Just looking (n = 2) I'm only looking (n = 1) I'm just browsing (n = 1) No, thank you (n = 2)	***I'm just looking*** (n = 13)
R-13	You need to talk to your teacher. You go to his office during office hours to see if he has time to talk. His office door is open, you knock. (AO): "Come in."	**Do you have a minute?** Do you have a minute? (n = 7) I was (just) wondering… (n = 4) I'm wondering if…(n = 1) I have a question…(n = 2) Thank you (n = 3) Thanks (n = 3)	No predominant phrase meeting 50% threshold
R-14	Your teacher invited the whole class to his house next Saturday. You are very happy that he has invited you, and you would like to go. When you are leaving the class, the teacher says, (AO): "How about you? Will you be able to join us this Saturday?"	**I'd love to.** I'd love to (n = 1) Sure (n = 1) I'm (really) looking forward to it (n = 3)	No predominant phrase meeting 50% threshold
R-15	Your friend introduces you to his new roommate. (AO): "This is my new roommate, Bill."	**Nice to meet you.** Nice to meet you (n = 18) Good to meet you (n = 1) How's it going? (n = 2)	***Nice to meet you*** (n = 18)
R-16	You go to ask your teacher if he will be having office hours tomorrow, and he tells you about his father. (AO): "I won't be having office hours tomorrow. My father died, and I have to go to the funeral."	**I'm (so) sorry.** I'm so sorry to hear about that (n = 2) I'm really sorry to hear about that (n = 2) I'm so sorry to hear that (n = 5) I'm really sorry to hear that (n = 2) I've very sorry to hear that (n = 2) I'm sorry to hear that (n = 3) I'm so sorry (n = 2)	***I'm (*intensifier) *sorry to hear (about) that*** (n = 16)

		I'm (so) sorry for your loss (n = 4)	
R-17	You have been studying very hard for your test. But on the morning of your test, your alarm does not go off and you oversleep. You ask your teacher for a make-up test. (AO): "Okay. I'll give you a make-up test this time, but don't let it happen again."	**Thank you (very/so) much.** Thanks so much (n = 2) Thank you so much (n = 5) Thank you very much (n = 4) Thank you so very much (n = 1) Thank you (n = 5)	***Thank {s / you}* (intensifier) *much*** (n = 12)
R-18	It's raining really hard and you are walking to the bank. A friend pulls his car over to offer you a ride. (AO): "Hey, want a ride?"	**That'd be great / Thank you.** That'd be great (n = 5) That would be great (n = 1) Sure (n = 2) Sure, thanks (n = 2) Thanks (n = 4) Thank you (n = 2)	***That {'d / would} be great*** (n = 6) ***Thank {s / you}*** (n = 8)
R-19	You are having dinner at a friend's house. Your friend offers you more food, but you couldn't possibly eat another bite. (AO): "Would you like some more?"	**No, thanks.** No, thanks (n = 4) No, thank you (n = 8) I'm full (n = 5) I'm stuffed (n = 8) *No, {thanks / thank you}; {I am / I'm} {stuffed / full}* (n = 8) *No, {thanks / thank you}* (n = 12) *No, I'm {stuffed / full}* (n = 13)	***No, thank {s / you}*** (n = 12) ***No, I'm {stuffed / full}*** (n = 13)

APPENDIX H

Participant Data Summary – Organized by Proficiency Level

ID #	INDEPENDENT VARIABLES								DEPENDENT VARIABLES	
			INTENSITY							
	Level	Length of Stay	NS hours per week	NNS hours / week	TV / movies hours/ week	Internet hours / week	SM / apps hours / week	TOTAL INTENSITY SCORE	Final Recognition Score	Final Production Score
5	1	2	1	1	3	3	3	11	29	2
6	1	2	0	1	3	1	3	8	33	2
7	1	2	0	0	3	1	2	6	31	4
8	1	2	3	3	3	3	3	15	27	3
9	1	2	1	2	2	2	2	9	27	0
10	1	3	2	1	2	1	3	9	28	4
11	1	1	0	1	2	1	2	6	24	3
12	1	1	2	1	1	1	3	8	28	0
17	1	1	1	2	2	2	1	8	29	4
18	1	3	2	1	1	2	2	8	28	1
LEVEL 1		**1.90**	**1.20**	**1.30**	**2.20**	**1.70**	**2.40**	**8.80**	**28.40**	**2.30**
46	2	2	0	2	1	3	3	9	30	5
LEVEL 2		**2.00**	**0.00**	**2.00**	**1.00**	**3.00**	**3.00**	**9.00**	**30**	**5**
15	3	3	1	0	0	1	1	3	32	6
16	3	3	1	1	1	1	0	4	33	6
20	3	1	1	3	2	2	3	11	25	8
21	3	3	2	3	3	2	2	12	30	7
24	3	1	2	2	3	3	3	13	32	7
25	3	1	3	3	3	2	2	13	28	12
LEVEL 3		**2.00**	**1.67**	**2.00**	**2.00**	**1.83**	**1.83**	**9.33**	**30.00**	**7.67**
1	4	1	3	3	2	1	0	9	33	8
2	4	3	1	1	2	1	2	7	31	6
3	4	3	3	3	2	3	3	14	33	10
4	4	3	1	3	2	3	3	12	32	5
13	4	1	1	0	3	2	1	7	33	6
14	4	3	2	2	3	3	2	12	26	4
19	4	1	2	2	2	1	2	9	31	8
22	4	3	0	1	1	1	1	4	30	7
23	4	1	1	1	2	3	1	8	29	8
LEVEL 4		**2.11**	**1.56**	**1.78**	**2.11**	**2.00**	**1.67**	**9.11**	**30.89**	**6.89**
26	5	1	3	2	2	2	2	11	33	9
27	5	1	3	3	2	2	3	13	31	7
28	5	1	1	1	3	2	1	8	35	11
32	5	3	3	3	3	3	3	15	31	10
33	5	3	3	3	3	3	3	15	34	14
34	5	3	3	3	2	3	3	14	34	11
35	5	2	1	1	1	2	1	6	26	7
36	5	2	3	3	2	3	3	14	33	12
37	5	2	2	2	3	3	3	13	28	9
38	5	3	1	1	2	3	3	10	29	9
39	5	3	1	1	1	1	1	5	31	9
41	5	3	3	3	3	3	3	15	33	7
LEVEL 5		**2.25**	**2.25**	**2.17**	**2.25**	**2.50**	**2.42**	**11.58**	**31.50**	**9.58**
29	6	2	3	3	1	2	2	11	31	11

30	6	3	1	2	2	1	1	7	33	7
31	6	2	1	1	1	1	1	5	32	10
47	6	1	0	1	1	2	2	6	29	8
LEVEL 6		**2.00**	**1.25**	**1.75**	**1.25**	**1.50**	**1.50**	**7.25**	**31.25**	**9**
48	8	1	0	2	0	1	1	4	30	9
49	8	1	2	3	2	2	2	11	33	11
50	8	2	3	3	3	3	3	15	33	9
51	8	1	3	3	0	2	3	11	32	8
LEVEL 8		**1.25**	**2.00**	**2.75**	**1.25**	**2.00**	**2.25**	**10.25**	**32**	**9.25**
42	10	3	2	1	1	2	1	7	33	13
43	10	3	2	3	3	3	3	14	33	15
44	10	3	3	3	1	3	1	11	31	13
45	10	3	3	2	1	2	1	9	32	16
LEVEL 10		**3.00**	**2.50**	**2.25**	**1.50**	**2.50**	**1.50**	**10.25**	**32.25**	**14.25**

APPENDIX I

Participant Data Summary – Organized by Length of Stay

ID #	INDEPENDENT VARIABLES								DEPENDENT VARIABLES	
			INTENSITY							
	Level	Length of Stay	NS hours / week	NNS hours / week	TV / movies hours / week	Internet hours / week	SM / apps hours / week	TOTAL INTENSITY SCORE	Final Recognition Score	Final Production Score
11	1	1	0	1	2	1	2	6	24	3
12	1	1	2	1	1	1	3	8	28	0
17	1	1	1	2	2	2	1	8	29	4
20	3	1	1	3	2	2	3	11	25	8
24	3	1	2	2	3	3	3	13	32	7
25	3	1	3	3	3	2	2	13	28	12
1	4	1	3	3	2	1	0	9	33	8
13	4	1	1	0	3	2	1	7	33	6
19	4	1	2	2	2	1	2	9	31	8
23	4	1	1	1	2	3	1	8	29	8
26	5	1	3	2	2	2	2	11	33	9
27	5	1	3	3	2	2	3	13	31	7
28	5	1	1	1	3	2	1	8	35	11
47	6	1	0	1	1	2	2	6	29	8
48	8	1	0	2	0	1	1	4	30	9
49	8	1	2	3	2	2	2	11	33	11
51	8	1	3	3	0	2	3	11	32	8
LOS 1			**1.65**	**1.94**	**1.88**	**3.82**	**9.88**	**9.18**	**30.29**	**7.47**
5	1	2	1	1	3	3	3	11	29	2
6	1	2	0	1	3	1	3	8	33	2
7	1	2	0	0	3	1	2	6	31	4
8	1	2	3	3	3	3	3	15	27	3
9	1	2	1	2	2	2	2	9	27	0
46	2	2	0	2	1	3	3	9	30	5
35	5	2	1	1	1	2	1	6	26	7
36	5	2	3	3	2	3	3	14	33	12
37	5	2	2	2	3	3	3	13	28	9
29	6	2	3	3	1	2	2	11	31	11
31	6	2	1	1	1	1	1	5	32	10
50	8	2	3	3	3	3	3	15	33	9
LOS 2			**1.50**	**1.83**	**2.17**	**2.25**	**2.42**	**10.17**	**30.00**	**6.17**
10	1	3	2	1	2	1	3	9	28	4
18	1	3	2	1	1	2	2	8	28	1

15	3	3	1	0	0	1	1	3	32	6
16	3	3	1	1	1	1	0	4	33	6
21	3	3	2	3	3	2	2	12	30	7
2	4	3	1	1	2	1	2	7	31	6
3	4	3	3	3	2	3	3	14	33	10
4	4	3	1	3	2	3	3	12	32	5
14	4	3	2	2	3	3	2	12	26	4
22	4	3	0	1	1	1	1	4	30	7
32	5	3	3	3	3	3	3	15	31	10
33	5	3	3	3	3	3	3	15	34	14
34	5	3	3	3	2	3	3	14	34	11
38	5	3	1	1	2	3	3	10	29	9
39	5	3	1	1	1	1	1	5	31	9
41	5	3	3	3	3	3	3	15	33	7
30	6	3	1	2	2	1	1	7	33	7
42	10	3	2	1	1	2	1	7	33	13
43	10	3	2	3	3	3	3	14	33	15
44	10	3	3	3	1	3	1	11	31	13
45	10	3	3	2	1	2	1	9	32	16
LOS 3			**1.90**	**1.95**	**1.86**	**2.14**	**2.00**	**9.86**	**31.29**	**8.57**

APPENDIX J

Participant Data Summary – Organized by Intensity Level

ID #	INDEPENDENT VARIABLES								DEPENDENT VARIABLES	
			INTENSITY							
	Level	Length of Stay	NS hours / week	NNS hours / week	TV / movies hours / week	Internet hours / week	SM / apps hours / week	TOTAL INTENSITY SCORE	Final Recognition Score	Final Production Score
15	3	3	1	0	0	1	1	3	32	6
INTENSITY 3		**3**	**1**	**0**	**0**	**1**	**1**		**32**	**6**
48	8	1	0	2	0	1	1	4	30	9
16	3	3	1	1	1	1	0	4	33	6
22	4	3	0	1	1	1	1	4	30	7
INTENSITY 4		**2.33**	**0.33**	**1.33**	**0.67**	**1.00**	**0.67**		**40.00**	**7.33**
31	6	2	1	1	1	1	1	5	32	10
39	5	3	1	1	1	1	1	5	31	9
INTENSITY 5		**2.5**	**1**	**1**	**1**	**1**	**1**		**31.5**	**9.5**
11	1	1	0	1	2	1	2	6	24	3
47	6	1	0	1	1	2	2	6	29	8
7	1	2	0	0	3	1	2	6	31	4
35	5	2	1	1	1	2	1	6	26	7
INTENSITY 6		**1.50**	**0.25**	**0.75**	**1.75**	**1.50**	**1.75**	**6.00**	**27.50**	**5.50**
13	4	1	1	0	3	2	1	7	33	6
2	4	3	1	1	2	1	2	7	31	6
30	6	3	1	2	2	1	1	7	33	7
42	10	3	2	1	1	2	1	7	33	13
INTENSITY 7		**2.5**	**1.25**	**1**	**2**	**1.5**	**1.25**		**32.5**	**8**
12	1	1	2	1	1	1	3	8	28	0
17	1	1	1	2	2	2	1	8	29	4
23	4	1	1	1	2	3	1	8	29	8
28	5	1	1	1	3	2	1	8	35	11
6	1	2	0	1	3	1	3	8	33	2
18	1	3	2	1	1	2	2	8	28	1
INTENSITY 8		**1.50**	**1.17**	**1.17**	**2.00**	**1.83**	**1.83**		**30.33**	**4.33**
1	4	1	3	3	2	1	0	9	33	8
19	4	1	2	2	2	1	2	9	31	8
9	1	2	1	2	2	2	2	9	27	0
46	2	2	0	2	1	3	3	9	30	5
10	1	3	2	1	2	1	3	9	28	4
45	10	3	3	2	1	2	1	9	32	16

INTENSITY 9		**2.00**	**1.83**	**2.00**	**1.67**	**1.67**	**1.83**		**30.17**	**6.83**
38	5	3	1	1	2	3	3	10	29	9
INTENSITY 10		**3**	**1**	**1**	**2**	**3**	**3**		**29**	**9**
20	3	1	1	3	2	2	3	11	25	8
26	5	1	3	2	2	2	2	11	33	9
49	8	1	2	3	2	2	2	11	33	11
51	8	1	3	3	0	2	3	11	32	8
5	1	2	1	1	3	3	3	11	29	2
29	6	2	3	3	1	2	2	11	31	11
44	10	3.00	3.00	3.00	1.00	3.00	1.00	11.00	31.00	13.00
INTENSITY 11		**1.57**	**2.29**	**2.57**	**1.57**	**2.29**	**2.29**		**30.57**	**8.86**
21	3	3	2	3	3	2	2	12	30	7
4	4	3	1	3	2	3	3	12	32	5
14	4	3	2	2	3	3	2	12	26	4
INTENSITY 12		**3.00**	**1.67**	**2.67**	**2.67**	**2.67**	**2.33**		**29.33**	**5.33**
24	3	1	2	2	3	3	3	13	32	7
25	3	1	3	3	3	2	2	13	28	12
27	5	1	3	3	2	2	3	13	31	7
37	5	2	2	2	3	3	3	13	28	9
INTENSITY 13		**1.25**	**2.5**	**2.5**	**2.75**	**2.5**	**2.75**		**29.75**	**8.75**
36	5	2	3	3	2	3	3	14	33	12
3	4	3	3	3	2	3	3	14	33	10
34	5	3	3	3	2	3	3	14	34	11
43	10	3	2	3	3	3	3	14	33	15
INTENSITY 14		**2.75**	**2.75**	**3**	**2.25**	**3**	**3**		**33.25**	**12**
8	1	2	3	3	3	3	3	15	27	3
50	8	2	3	3	3	3	3	15	33	9
32	5	3	3	3	3	3	3	15	31	10
33	5	3	3	3	3	3	3	15	34	14
41	5	3	3	3	3	3	3	15	33	7
INTENSITY 15		**2.6**	**3**	**3**	**3**	**3**	**3**		**31.6**	**8.6**