DEVELOPMENTAL STAGES OF NEGATION

IN ONE LEARNER'S INTERLANGUAGE:

A CASE STUDY

by

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Chapter 1

Introduction

My first language learning experience was in the sixties when I studied French as a foreign language in Southern California. The classroom was teacher-fronted; we practiced choral repetition to perfect pronunciation, studied grammar rules, performed grammar exercises, wrote essays, and read French literature. The teacher asked the students questions and the students responded in French; but that was the only conversational activity that took place. When there was an error it was corrected. The method was audio-lingual or fundamental skill method (Corder, 1974). At that time there were "two schools of thought in respect to learners' errors. Firstly the school which maintain[ed] that if we were to achieve a perfect teaching method the errors would never be committed in the first place…The philosophy of the second school [was] that we live[d] in an imperfect world and consequently errors [would] always occur in spite of our best efforts" (Corder, 1974, p. 20). This thinking stemmed from a focus on the teaching method as the principal factor in students' success and is consistent with the then-dominant behaviorist paradigm. Within the behaviorist school of thought, languages were learned through imitation, repetition and habit formation (Lightbown & Spada, 2003).

Subsequently, there was a shift to look at the learner and the process of acquisition. The errors were viewed as a transitional system reflecting the learner's current second language (L2) knowledge. Selinker (1972) coined the term *interlanguage* for this. Based on the accepted idea that the second language learner,

while attempting to produce sentences in the target language, produces utterances which are not identical to those a native speaker would produce, Selinker hypothesized that these utterances are the result of a separate linguistic system which is dynamic. He called this interim grammar system interlanguage.

As a language teacher and a perennial language student, I find the concept of interlanguage invaluable. It eliminates the frustration of observing one's students (and oneself) seeming to have mastered a form or grammar construction one day and then misusing the form the next day. Within this construct, "the well-observed phenomenon of 'backsliding' by second language learners from a [target language] norm is not, as has been generally believed, either random or towards the speaker's [native language], but toward an [interlanguage] norm"(Selinker, 1974, p. 37). Within the framework of interlanguage, errors are not viewed as incorrect utterances with the target language as the norm but rather each utterance reveals the pattern of a learner's developing interlanguage (Ellis, 1988).

The idea that learners had their own interim grammars supported the notion that there was some universal mechanism which played a role in language acquisition. It was contrary to the behaviorist view of acquisition and more in line with the nativist school which was emerging. Nativists support the view that certain grammatical knowledge is inborn. This shift from behaviorism to nativism was highlighted by the notion of Universal Grammar in first language acquisition.

In the field of first language acquisition, researchers gained support for the idea of Universal Grammar from the morpheme studies and developmental sequence

studies. The morpheme studies, the most noteworthy being Brown (1973), demonstrated that first language (L1) acquisition of certain grammatical morphemes occurred in a predictable order. The developmental sequence research (Klima & Bellugi, 1966) demonstrated that certain syntactic forms were also acquired in a similar sequence across learners. These first language acquisition studies sparked interest in the second language acquisition community, and the question was raised as to whether second languages were acquired in a similar manner to first languages. To pursue this question, Dulay and Burt (1974b) performed a study of the acquisition of morphemes by children with different first languages (L1s). They found that certain grammatical morphemes (including progressive –ing, plural –s, past irregular, etc.) were acquired in a similar order regardless of the learner's L1. The developmental sequence studies (Butterworth, 1972; Milon, 1972; Ravem, 1968; Wode, 1978, etc.) which explored children's acquisition of L2 English, found evidence of patterns of development in their acquisition of negation. These studies lent support to the notion that there is a universal mechanism at work in the acquisition of second languages, at least for children. Finding that there were patterns, the researchers wanted to know whether they were similar to those in L1 acquisition (Ravem, 1968), in other words, did L2 learners of English follow the same developmental steps as L1 learners of English? Many of these studies used the first language acquisition research of Klima and Bellugi (1966) as the basis of comparison in the study of negation. Klima and Bellugi had identified a progression of rules for negation and question formation based

on the utterances produced by three children who were in the process of acquiring English as an L1.

A number of studies ensued investigating the stages of development in negation and question formation for English as Second Language (ESL) learners. The informants for these studies had various L1s, and the majority of them were learning English naturalistically, i.e. "in naturally occurring social situations" (Ellis, 1988). With two exceptions, Felix's (1981) study whose informants were English as Foreign Language (EFL) students in a classroom in Germany and the Ellis 1982 study (reported in Ellis, 1988) of three adolescent ESL students in London, the subjects of these studies were not receiving formal English training. The fact that most of the studies were done of naturalistic learners makes sense, given that many used the first language acquisition research for comparison purposes and that research is based on naturalistic learning. However, the nature of the linguistic input for naturalistic learners and instructed learners is quite different and might influence the acquisition process. This, together with the fact that the 'applied focus' of this research is language teaching (Ellis, 1994), seems to provide a reason for more research of instructed learners to see if these sequences occur in their interlanguage.

The vast majority of the subjects for these studies were children learning English naturalistically. In fact, of the thirteen studies which specifically dealt with recording the stages of development relative to negation, only two dealt with adult acquisition of English. These were Hanania and Gradman (1977), a case study of a woman with L1 Arabic, and Cancino, Rosansky & Schumann (1978), the study of two

children, two adolescents, and two adults with L1 Spanish. The age of the subjects is of interest because the question arises as to whether the universal mechanism for language acquisition remains available regardless of age. The results of these studies suggest it remains available to children acquiring L2 English but the paucity of research on adults leaves the question open as to its availability to adult learners.

The data for the developmental sequence studies exploring the acquisition of English negation were primarily recordings of spontaneous speech, but, in most cases, also included elicitation, translation and testing. Typically, the researcher attempted to elicit the desired syntactic forms via conversation with the subject. In some cases these conversations revolved around looking at picture books, working out puzzles, or playing games. The data were collected via recording conversations and/or note taking by the researchers. And data collection took place either while the children were at school, with the researcher nearby, or in the informants' homes.

As noted earlier, this research did reveal that there were developmental sequences in second language acquisition (SLA) and that, in some cases, these sequences corresponded to L1 acquisition. The fact that there are stages of development for negation in L2 acquisition is now a given in SLA literature. As Ellis (1994) points out: "Any theory of L2 acquisition will need to account for developmental patterns. The theory that has been dominant in [second language acquisition] – interlanguage theory (Selinker, 1972) – was initially formulated to provide such an account" (p.114). And the concept of interlanguage "in part paved the way for communicative teaching methods" (Cook, 1991, p. 7). As a language student

in the 60s, I received instruction under the audio-lingual model of teaching, and then in the 90s, when I returned to the language classroom to study Spanish, I received instruction under the communicative model of teaching. The transition in teaching methods is now clear to me. My interest in the piece of the puzzle called interlanguage syntax stems from my interest in grammar, English grammar and the grammars of foreign languages I have studied.

The concept of developmental stages (within the field of interlanguage) in the acquisition of English interests me because I find it useful to my future teaching career. Understanding these stages can inform teaching because "if teachers knew the order in which students naturally tend to learn language structures, they could work with the process" (Dulay, Burt, & Krashen, 1982), instead of working independently of the process. Learner language can be mystifying if one does not have an overall idea of the steps learners go through. And, "knowing more about the development of learner language helps teachers to assess teaching procedures in the light of what they can reasonably expect to accomplish in the classroom" (Lightbown & Spada, 2003, p.71).

The developmental sequence literature I have read, focusing on the acquisition of negation, consists of thirteen studies; only two of these included adult learners. In eleven of these studies the informants were naturalistic learners. Given the unique database we have available at Portland State University in the Lab School[1], I chose to

[1] The National Labsite for Adult ESOL (known locally as the Lab School) is supported, in part, by grant R309B6002 from the Institute for Education Science, U.S. Dept. of Education, to the National Center for the Study of Adult Learning and Literacy (NCSALL). The Lab School is a partnership between Portland State University and Portland Community College. The school and research facilities are

revisit this field of study to examine whether these sequences are evident in the interlanguage of a tutored (or instructed) adult learner in a classroom setting. This study adds a new dimension to the existing literature. The Lab School is an entirely different research setting in which to examine these stages of development and the data generated by classroom activities is an entirely different database. Plus, given the fact that these stages of development have been accepted on the basis of research done primarily on children, it is worthwhile to further explore if these stages of development hold true for an adult learner. In the following pages I describe my study of a beginning-level adult ESL learner in a non-academic classroom environment and his acquisition of negation. To see examples of this learner's speech go to: http://www.labschool.pdx.edu/Viewer/viewer.php?Negation_development.

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housed at the university while the registration, curriculum, and teachers of the ESL students are from the community college.

Chapter 2

Literature Review

Introduction:

In this literature review my primary emphasis will be on the developmental sequence studies which took place from the late sixties to the early eighties, because it is my intention to revisit this specific area of interlanguage research within the broader context of second language acquisition. Before discussing the studies themselves, it is helpful to look back at what was happening in the field of language acquisition to give the reader a fuller understanding of the impact of these original studies. The first section of the literature review will focus on the historical perspective. This historical perspective will provide a general sense of how the field of linguistic theory was evolving at the time of the original developmental sequence studies. The research into developmental sequences in second language acquisition followed similar studies in first language acquisition. Because many of the studies in second language acquisition used the first language acquisition research of Klima and Bellugi (1966) for comparison purposes, I will outline the results of this study to provide useful background information for the second language acquisition studies. This will be followed by an overview of the studies including the questions they were addressing, the methodologies used and the results. Finally, I will discuss the dimensions of the previous studies and how these dimensions are relevant to my proposed study.

Historical perspective: Where do developmental sequence studies fit in the big picture?

In the 60s there was a major re-evaluation of theory behind language development; this entailed a shift from the behaviorist paradigm to the nativist paradigm. Behaviorists thought that language development was the result of stimulus-response links. Within this behaviorist paradigm, languages were thought to be learned through imitation, practice, reinforcement, and habit formation. The contention was that children learned their first language while attempting to imitate their parents' utterances and by receiving negative feedback when they committed errors and positive feedback when they produced target-like utterances (Ellis, 1994). In contrast, proponents of nativism hypothesized that children were "biologically programmed for language and that language develops in the child in just the same way that other biological functions develop" (Lightbown & Spada, 2003, p. 15). Chomsky (1965) argued that within the human brain there was a "language acquisition" device which allowed children to acquire their first language, with all its complexities, in a short period of time. This concept of a language acquisition device (which would later be referred to as Universal Grammar) explained how native speakers are able to produce and understand utterances which they have never heard. In this new paradigm, the emphasis in first language acquisition was on Universal Grammar, i.e. the concept that the facility for language was built into the human mind.

The first language acquisition study of Klima and Bellugi (1966) provided evidence for the innateness hypothesis and the concept of Universal Grammar. They

were looking for regularities "in the order of appearance of [grammatical] structures across children" (p.184). Their longitudinal database consisted of the naturalistic utterances of three children from three separate families and unknown to each other. They found that these children acquired the syntactic rules for negation and question-formation in a similar developmental pattern and sequence. Using this same database, Brown (1973) found that these children also exhibited a specific sequence in the acquisition of grammatical morphemes (such as plural '-s', progressive '-ing', articles, etc.). These studies suggested that there was a universal mechanism involved in language acquisition because these three children (despite different parental language) acquired certain grammatical features in a similar order. The studies also reflected a systematicity in the children's language as they moved through similar developmental stages on the road to first language acquisition. Based on these studies, the researchers concluded "children's early language seems best described as a developing system with its own interim structure, not simply as an imperfect imitation of adult sentences" (Lightbown & Spada, 2003, p. 75).

These first language acquisition studies were counter-evidence to the accepted behaviorist view of first language acquisition and provided evidence for Universal Grammar and the nativist school of thought. Following the first language acquisition studies regarding acquisition of morphemes and developmental sequences, questions arose in the second language acquisition community as to whether second language learners develop their own linguistic system in the same way that first language learners do. The first language acquisition studies supplied second language

researchers with helpful "methodological procedures" to examine developmental sequences in learner language. And, the orders of acquisition which the L1 researchers discovered served as a starting point for the L2 research in this area. "An important issue is whether the patterns in the two types of acquisition are the same or different" (Ellis, 1994, p. 76).

These first language acquisition studies had sparked interest in the second language acquisition community and a desire to answer the question: Is second language learning the same as first language acquisition? (Lightbown & Spada, 2003). The morpheme studies (Dulay & Burt, 1974a) and the developmental sequence studies (Huang, 1971; Ravem, 1968; Wode, 1978, etc.), all of which looked at patterns of development in the acquisition of English as a second language, ensued. If second language acquisition proceeded in the same manner as first language acquisition, i.e. exhibited the same order of acquisition, this would provide evidence that some kind of universal mechanism for language acquisition remained available to L2 learners.

Dulay and Burt (1974b), in their influential morpheme study, found a similarity in the process of L1 and L2 acquisition. Specifically, they hypothesized that if similar patterns existed in children with different L1s "one could conclude that developmental factors rather than [native language] factors were at play and that universal mechanisms for second language acquisition had to be considered primary" (Gass & Selinker, 1994, p. 81). They investigated the acquisition of eleven grammatical morphemes by Chinese and Spanish speaking children, and they found that these children, with different first languages, acquired these morphemes in a

similar order. These findings provided evidence for a universal cognitive mechanism being available to children in acquiring a second language. It also provided evidence for their creative construction model. Creative construction refers to "the subconscious process by which language learners gradually organize the language they hear, according to rules that they construct to generate sentences. The form of the rules is determined by mental mechanisms responsible for human language acquisition and use. These mechanisms appear to be innate" (Dulay et al., 1982).

The developmental sequence studies (Butterworth, 1972; Ravem, 1968; Wode, 1978, etc.) also provided evidence for the availability of a universal mechanism in second language acquisition. These studies explored the acquisition of various grammatical features by children (and a handful of adolescents and adults), of varying first languages, to see if these features were acquired in a particular sequence. The results of these studies were mixed; some revealed that the subjects passed through stages of development similar to the L1 learners of English and showed no evidence of L1 influence; others showed patterns of development with some influence of the learners' L1 in their acquisition of L2 English. Based on these studies, researchers concluded that learners were not wholly depending on their L1 structures as the starting point in the acquisition of L2 English. Thus, the implication was that the learners may still have access to Universal Grammar when acquiring second (and subsequent) languages. The grammatical features studied included: negation, question formation, relative clauses, and word order, among others. In this review of the literature I will be focusing on the studies investigating the acquisition of English

negation. Much of the research on negation used the first language work of Klima and Bellugi(1966) as a basis for comparison. A detailed description of these studies and their findings follows.

At the same time as the morpheme studies and developmental sequence studies were occurring in the field of second language acquisition, the idea of interlanguage (Selinker, 1972) was introduced to the field. The concept of interlanguage is based on the idea that the second language learner, while attempting to produce sentences in the target language, produces utterances which are not identical to those a native speaker would produce. Selinker hypothesized that these utterances are the result of a separate linguistic system which is dynamic. He called this interim grammar system interlanguage. The morpheme studies and the developmental sequence studies lent support to the notion that interlanguages are generated by a set of internal rules which are systematic but not yet target-like. And the particular rules (relative to morpheme use or grammatical structures) a language learner exhibits at a given point of time are a reflection of their interlanguage. Also, and perhaps more importantly, they addressed the question as to whether second languages were acquired in a similar manner to first languages.

With the advent of the concept of interlanguage and the work done by the developmental sequence and morpheme studies' researchers, a new view of errors evolved. As interlanguages are systematic and evolutionary, each utterance is a reflection of the current state of the learner's interlanguage. Rather than viewing a student's error as being incorrect, the error reflects the student's current understanding

of the rules of the language. Errors reveal the patterns of the learners developing interlanguage. In the process of language learning, a student might move from correct performance based on rote-learning to incorrect performance based on emerging understanding of underlying rules. Thus, if a learner's errors increase this may mean the learner is actually making progress (Lightbown & Spada, 2003).

Within the realm of interlanguage studies, researchers have also looked at the high degree of variability in interlanguage. This has been attributed to the rapidly changing nature of interlanguage grammars because: 1. "learners will not hear many language models like their own and so will not receive much linguistic reinforcement for their variety"; and 2. "older children and adult [second language] acquirers are less cognitively and psycholinguistically constrained than young children acquiring their native language" because their long term memory and their ability to process language are better developed (Larsen-Freeman & Long, 1991, p. 82). Another area of interest has been the effect of the learner's native language on their acquisition of second languages; this is addressed in the developmental sequence studies but also in other contexts as well. It is of interest because, if one views the acquisition of language via interlanguage as a continuum, the question arises as to whether that continuum begins with the learner's native language or begins with Universal Grammar or some combination of the two.

The purpose of this literature review is to look at the developmental sequence research, which is within the field of interlanguage studies. The following section will

provide further background information particularly related to the developmental sequence research in second language acquisition.

Overview: The Developmental Sequence Studies in Second Language Acquisition

In the late 60s and early 70s, when Henning Wode was planning his Kiel University Project of Language Acquisition, there had been little research done looking at naturalistic data in L2 acquisition. Wode raised the following questions relative to L2 acquisition:

> "The major issues relating to naturalistic L2 Acquisition, as I see the field today, still are:
> a.) is L2 acquired in developmental sequence?
> b.) is there an ordered sequence of stages?
> c.) are the developmental sequences the same for L1 and L2?
> d.) what are the variables governing this sequence?" (Wode, 1978)

These questions pervade the developmental sequence studies I have read. The researchers concluded that certain grammatical features of L2 English are acquired in developmental sequence. Among the features studied were auxiliary verbs, relative clauses, negation, and question formation. The focus of this paper will be negation. Not all agreed that the L1 and L2 orders were the same. And the principal variable discussed was to what extent, if any, the learner's L1 influences the order.

The "L1=L2 hypothesis" was popular among many early researchers. This hypothesis states that L2 acquisition follows similar developmental sequences as L1 acquisition (Wode, 1978). However, Wode could not find compelling evidence to support this hypothesis and concluded (based on his research) that L1 and L2 sequences for a specific language might differ and that L2 learners rely on knowledge of their L1 in acquiring a second language.

One of the first studies to explore the questions laid out by Wode was the Norwegian linguist Ravem's (1966) study of his six-year-old son's acquisition of English while the family was living in Scotland. This was followed by Huang (1971), who studied a five-year-old Taiwanese boy's English acquisition while attending preschool in Los Angeles. Many of the studies were case studies such as these, of individual children who were learning English "naturalistically", i.e. "in naturally occurring situations" (Ellis, 1988). There was also the ambitious study by Adams (1978) who recorded the utterances of 10 school children, over a two-year period, in a school yard in Los Angeles. Only two studies had adult informants; the first was Cancino, Rosansky, & Schumann's (1975) study of six L1 Spanish speakers - two children, two adolescents, and two adults - which explored the influence of age in L2 English acquisition. The second was a case study of a young Saudi woman, the focus of which was her overall linguistic development (Hanania & Gradman, 1977).

These studies, and the others I discuss, all dealt with the acquisition of negation by L2 English learners. The amount of emphasis placed on negation varied according to the study. I narrowed my review to this structure because the Portland State University Lab School students are beginning level learners and it should be prevalent in their interlanguages. In the following pages I will review the studies, not only looking at methodological issues, but also looking at the questions raised by Wode and how the researchers answered them. Table 1 on the following two pages summarizes the principal studies exploring negation.

Table 1. Summary of Developmental Sequence Studies

Researcher/Date	Subjects	L1	Setting/Data	Structure Studied	Results
Adams 1974	10 children (ages 4:11-5:9)	Spanish	Public school – L.A. /Conversation of children at play	Auxiliary system (*Negation* yes/no questions Wh questions)	Became a study of methodology rather than acquisition.
Butterworth 1972	1 adolescent	Spanish	Junior High School – California /Spontaneous Speech	*Negation* Questions	Similar to First Language Acquisition (FLA)-English.
Cancino, Rosansky & Schumann 1978	2 children 2 adolescents 2 adults	Spanish	Subjects' homes /Spontaneous Speech	*Negation* Questions	Sequences evident. Some L1 influence.
Ellis 1982	3 adolescents	Portuguese Punjabi	ESL Program London/ Communicative Speech	*Negation* Questions Verb morphology	Similar to FLA – English.
Felix 1981	44 students (ages 10-11)	German	German High School (Formal EFL Class)/ Classroom activities	*Negation* Questions Sentence types Pronouns	Similar to FLA – English.
Gerbault 1978	1 girl (Gerbault's daughter, aged 4.6)	French	Spontaneous speech Bilingual Syntax Measure Elicitation	*Negation* Questions Grammatical morphemes	Similar to FLA – English. Some L1 influence.
Gillis & Weber 1976	2 boys (ages 6 & 7)	Japanese	Subjects' home/ Naturalistic – free speech	*Negation* Questions Imperatives	Similar to FLA – English. No L1 influence

Table 1. Summary of Developmental Sequence Studies – continued

Researcher/Date	Subjects	L1	Setting/Data	Structure Studied	Results
Hanania & Gradman 1977	1 adult woman (age 19)	Arabic	Subject's home/ Spontaneous Speech Recorded in her home	Overall development Morphemes *Negation*	Similar to FLA – English.
Milon 1974	1 boy (age 7)	Japanese	Naturalistic Small Group	*Negation*	Similar to FLA – English.
Ravem 1966	1 boy (Ravem's son, age 6.6)	Norwegian	Subject's home/ Naturalistic Conversations	*Negation* Questions	Similar to FLA – English. Some L1 interference
Ravem 1968	1 girl (Ravem's daughter, age 3.9)	Norwegian	Subject's home/ Naturalistic Conversations	*Negation* Questions	Similar to FLA – English.
Wode 1976	2 of Wode's children (ages 3:4-5:6)	German	Subjects' home/ Spontaneous speech Experimental sessions	Phonology Plural inflection *Negation*	Some L1 influence.
Young 1974	3 children (aged 5.1-5.7)	Spanish	Public school Spontaneous speech	*Negation* Question-formation Articles	Similar to FLA – English.

Research of adults appears in bold; under structures studied, negation appears in italics.

The specific features of these studies are perhaps better described as variables. As variables, they have an impact on the conclusions drawn by the researchers and the conclusions that might be drawn when considering these studies as a body of work. These features are:

1. the age of the subjects
2. the subjects' exposure to English
3. the settings of previous studies
4. the nature of the data collected
5. the definition of stages and acquisition used
6. the tools of analysis used for the data.

I begin by describing the 1966 study of L1 acquisition by Klima and Bellugi which was used extensively for comparative purposes by the L2 acquisition researchers.

Background Study: Klima and Bellugi(1966)

The Klima & Bellugi study focused on first language acquisition and served as a base for the second language studies that followed. Klima and Bellugi explored the emergence of rules for negation and question-formation at different stages of early childhood L1 linguistic development to find regularities across children. The data consisted of taped mother-child conversations. The subjects were three children aged 18 months, 26 months, and 27 months; all the children were at the same stage of linguistic development at the start of the study. Stages were defined by Brown (1973) based on the mean utterance length (MLU) of the children. In period I the MLU was 1.75 morphemes for each child, and in period III the MLU was approaching 3.5

morphemes, and in period II it was in between. For each period, several thousand child utterances were recorded. They isolated the negatives and questions and analyzed these (Klima & Bellugi, 1966). As a caveat to their findings, they state: "It should be understood that when we write rules for the child grammar it is just a rough attempt to give substance to our feeling about, and general observations demonstrating, the regularity in the syntax of children's speech" (p.340). They found that the children's language was systematic and that their utterances were not merely an inadequate replication of adult language. These findings parallel the notion of an interlanguage in second language acquisition; i.e. a learner's interlanguage is not just a bad imitation of the target language but is a systematic reflection of the current state of their interlanguage.

In period I, when their MLUs were 1.75 morphemes, the children produced negatives such as the following:

More…no.

No singing song

No the sun shining

No play that.

No fall! (p. 341)

Based on their data, Klima and Bellugi concluded that no negative elements appeared within the utterances and that the negative element either preceded or followed the utterance.[2]

[2] While Klima and Bellugi's study was ground breaking in their examination of the acquisition of negation in first language acquisition, there have been many subsequent studies which outline a

In period II, when the MLU was between l.75 and 3.5, the negative utterances looked like the following:

I can't catch you.

I can't see you.

I don't like him.

Book say no.

Touch the snow no.

Don't leave me.

That no fish school.

That no Mommy.

At this point Klima and Bellugi (1966) define the negative element as *no, not* or V^{neg}, where V^{neg} is *can't* and *don't*. At this stage, auxiliary verbs only appeared in conjunction with a Negative, e.g. *can't* and *don't*, and did not occur in declarative or interrogative sentences. Because *can* and *do* did not occur in declarative utterances, *can't* and *don't* were considered negative elements. Based on the above data, the negative structure for period II is: $S \rightarrow Nominal - (Neg) - VP$. [3]

In Period III, when MLUs approached 3.5, sample sentences were:

Paul can't have one.

I didn't did it.

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somewhat different sequence of events. In particular, Bloom in her 1970 study of three children acquiring L1 English considered context and semantics when analyzing her data; neither of these were considered by Klima and Bellugi. When considering these added variables, Bloom could not find evidence of Klima and Bellugi's external negation defined here as stage 1. Subsequent research supported Bloom's assessment (Bloom, 1991).

[3] Symbols: S=Sentence; VP= Verb Phrase; Neg=Negative formant; ( ) = optional element; → = consists of. This reads: "A sentence consists of a nominal followed by an optional negative formant then a verb phrase".

Because I don't want somebody to wake me up

I didn't see something

I gave him some so he won't cry.

Donna won't let go.

This no good

It's not cold

I not crying

I not hurt him

Period III was marked by the appearance of modal auxiliaries *do* and *be* in declarative utterances and questions (in the children's speech) in addition to negative utterances. Table 2 below is a summary of Klima and Bellugi's findings relative to negation.

Table 2. Klima and Bellugi Rules for Negation	
Period I (MLUs = 1.75)	
Rules: no - Nucleus ~or~ Nucleus - no not	Examples: *No singing song* *No sit there* *No money* *Wear mitten no* *More…no*
Period II (MLUs are between 1.75 and 3.5)	
Rules: S→ Nominal – (Aux^{neg}) – Aux^{neg} → {V^{neg}} Neg → no not V^{neg} → can't } V^{neg} restricted to non- don't} progressive verbs	Examples: *I can't catch you* *You can't dance* *I don't know his name* *I don't like him* *He not little, he big* *That no my mommy* *I no taste them*
Period III (MLUs are approaching 3.5)	
Rules: S→ Nominal – Aux – VP Aux→ T – V^{aux} – (Neg) V^{aux}→ do can be will	Examples: *Paul can't have one.* *I can't see it.* *I didn't did it* *You didn't caught me* *No, it isn't* *I am not a doctor*
Information for this table from Klima & Bellugi (1966)	

The SLA studies on developmental sequences began immediately following the Klima and Bellugi study to determine if second language learners exhibited similar sequences in language acquisition. If they did, this would provide evidence that a

universal mechanism is available not only for first language acquisition but for the acquisition of subsequent languages.

Features of the Second Language Acquisition studies to be explored in depth

The studies I will be considering took place between 1966 and 1982 and covered a range of subjects, settings, data types, and data analysis formats. Before describing how these variables played out in the research, let me explain why these particular variables are important.

With respect to the range of subjects, I will explore the factor of age and the learners' exposure to English. The age of the informant is important because of its impact on the learner's ability to learn languages. The critical period hypothesis asserts that L2 learners can only achieve native-like competency if they acquire their L2 prior to a certain age (usually considered puberty). After that time L2 acquisition is more challenging and seldom completely successful (Ellis, 1994). This hypothesis is controversial, particularly as related to grammatical competence. The impact of age in these studies is of interest because if adult learners exhibit developmental sequences (similar to other learners) in the acquisition of grammatical features, independent of their first language, it would provide evidence that Universal Grammar remains accessible regardless of age.

The subject's exposure to English relates to the means by which the subject is learning English. It could be naturalistically, meaning that the learner hears English at work or in other daily activities and learns the language out of a need to communicate in these activities. In the case of children this would include attending an English-

speaking school, where the subject matter is taught in English but there is no explicit teaching of English as a second language. Another way that people learn language is through language classes; this method is referred to as either instructed or tutored acquisition. And there is a middle ground which includes learners who are taking classes but also live in an English-speaking country, i.e. they are receiving formal instruction and they are exposed to the language in the course of their daily activities. These learners are referred to as mixed learners (Ellis, 1988). This is an important distinction because of the nature of the language the learner is exposed to, also referred to as input. In the naturalistic environment, the language is likely more informal in nature and it serves the purpose of attending to the activities at hand whatever they may be. On the other hand, in language class there is an agenda; the language is planned. While language classes differ in format and material covered, the teacher has a plan as to what language the students will be exposed to. The explicit teaching of a language - its syntax, lexicon, and phonology - results in the student attending to these facets of language.

The settings of the study would have an impact on the nature of the data. In a 'naturalistic' setting the language would be unplanned whereas in a language classroom the language would be planned (Ellis, 1994). Another way to describe this difference is relative to the amount of the learner's attention to form. In the classroom, in well-defined activities the learner would exhibit greater attention to form than s/he might in informal conversation, where the principal interest is a more spontaneous communication of ideas. Relative to the nature of the data there is a planned-to-

unplanned continuum. With naturalistic data one would assume less attention to form whereas elicited data might entail more attention to form, i.e. using explicit knowledge of grammatical rules (Ellis, 1994).

The definition of stages and how the data are analyzed are interrelated. It is necessary to pay attention to these factors when comparing results. If there is a major difference in method, that would impact comparability. How these variables affect the second language acquisition studies on developmental sequences is discussed below.

The age of the subjects

The research regarding the effect of age on SLA has been substantial (Ellis, 1994). Age is important because of the interest in whether Universal Grammar remains available to learners of all ages in L2 acquisition. In fact, Cancino, Rosansky, & Schumann (1975) looked specifically at age as a factor in their study of six Spanish speakers and their acquisition of the auxiliary system and the related structures, negation and interrogatives. In order to consider the factor of age, they selected subjects from varying age groups; their subjects were two children (aged 5), two adolescents (aged 11 & 13) and two adults. This is the only study on developmental sequences that examined acquisition of developmental sequences across age groups. It was also one of only two studies that included adult subjects. The other was Hanania and Gradman's (1977) study of Fatmah, a 19-year old Saudi immigrant. In the Hanania and Gradman study, they examined Fatmah's overall language development, and within their findings, they discuss Fatmah's development relative to negation, finding some evidence of development similar to that outlined by Klima and Bellugi.

Including the two studies described above, there were thirteen studies performed between 1968 and 1982 which explored developmental sequence in the acquisition of negation in English by speakers of other languages. The majority of these, or seven of the studies, had subjects who were children ranging in age from 3 years: 9 months to 7 years old. These included:

1.) Ravem's (1968, 1978) studies of his son and daughter, with L1 Norwegian;

2.) Wode's (1976) study of his son and daughter, with L1 German;

3.) Milon's (1972) study of a recent immigrant from Japan with L1 Japanese;

4.) Adams (1974) study of 10 children with L1 Spanish;

5.) Young's (1974) study of three Spanish speaking children;

6.) Gillis and Weber's (1976) study of two Japanese children;

7.) Gerbault's (1978) study of her daughter, with L1 French.

These seven studies have a total of twenty-one children who were studied and only the Adams (1974) study dealt with more than three subjects.

Three studies dealt exclusively with adolescents. These were more varied in nature. Butterworth (1972) was a case study of a 13-year old Junior High School student who was a recent immigrant from Colombia. In Ellis's 1982 study (Reported in Ellis, 1988), he looked at the SLA of three ESL students in London; two had L1 Punjabi and one L1 Portuguese. And Felix (1982) did a study of a classroom of 44 English as a Foreign Language students in Germany.

The first language acquisition research revealed that children acquire certain grammatical features in sequence, providing evidence that there is a universal

mechanism involved in language acquisition. In the second language acquisition studies the informants (primarily children) exhibited developmental sequences in their acquisition, as well. These findings provide evidence that this universal mechanism remains available for acquisition of second (and subsequent) languages, particularly for children. With only two studies of adult acquisition, additional evidence is needed to determine if this universal mechanism is available to adults. A key theoretical issue in second language acquisition is whether adult L2 learners continue to have "access to the innate knowledge of linguistic universals"(Ellis, 1994).

The subjects' exposure to English

Another issue to be explored relative to these developmental sequence studies is the nature of these learners acquisition of English, and whether they were naturalistic learners or did they receive instruction? Naturalistic acquisition is the process whereby the language is learned "in naturally occurring social situations". On the other hand, instructed acquisition takes place when the language is learned through study, either independently or in a classroom (Ellis, 1994). In some cases there are mixed learners, i.e. learners who take language classes and are also exposed to the language "naturalistically". The question arises as to whether L2 acquisition in a classroom is different from naturalistic acquisition. As "the applied focus" of this research is language teaching, the study of classroom acquisition would be helpful (Ellis, 1988).

Much of the research on developmental sequences posited that the subjects were learning English naturalistically. This was because their subjects, at the time of

the studies, lived in English-speaking countries and were not taking classes in which English was explicitly taught. In all cases where the subjects were children, they were attending school where classes were held in English and the other students were English-speaking children; they did not, however, receive any explicit English lessons.

There were a few exceptions to this 'naturalistic' acquisition pattern. Ellis studied three adolescents who attended an ESL program in London. Two were Punjabi; when not in school they were firmly enclosed in their society where Urdu was spoken. The third was Portuguese; he was exposed to English outside of the classroom so he is considered a 'mixed' learner (Ellis, 1988). The only study that dealt specifically with acquisition in a classroom was Felix's (1981) study of an EFL class in Germany; in this case, the learners were not exposed to English outside of the classroom, therefore they were "instructed" or "tutored" learners. They were the only "instructed"-learner informants in this body of literature. In both of these studies of classroom acquisition the subjects were adolescents. There is a clear need for more studies of instructed learners.

The settings of the studies

Not only are there the settings in which the subject acquires her/his English proficiency, which I have described in the previous section, but also there are the settings in which the data, for these studies, were collected. The context within which the data were collected would likely have an affect on the data, i.e. the language samples. I refer back to the discussion of planned language vs. unplanned language. In relaxed conversation, e.g. children at play, versus formal language use, e.g.

grammatical drills in a language class, the language produced would likely be different. Again the consideration would be the amount of attention to form that the learner uses.

In most of the cases, these settings in which the learner was exposed to English and the setting in which the study was performed were the same, i.e. the researcher gathered her/his data in the school setting. These included:

1. Adams (1978), the study of 10 school children which took place at a public school in Los Angeles;
2. Butterworth (1972) the study of an adolescent which took place at a junior high school in Laguna Beach, California;
3. Milon (1972), the study of a child which took place in a school setting in Hawaii;
4. Young (1974), the study of three children which took place in a kindergarten class in Culver City, California.
5. Ellis (1988), the study of three adolescents in an ESL class in London, England;
6. Felix (1981), the study of 44 adolescents in an EFL class in Germany.

In the first four above mentioned studies the informants were considered "naturalistic" learners and in the last two they were "tutored" and "mixed" learners.

However, there were also cases in which the setting for L2 acquisition and the setting for the study were different. In the case where the researcher was also the father of the subject, the data was collected at home, e.g. Ravem (1968). The Ravems

were a Norwegian family living in Scotland at the time of the study. The son, Rune, was attending an English-speaking school where he was acquiring English, however, the data for the study were collected at home via conversation with his father (the researcher) and his older sister, who was bilingual (English/Norwegian). In another study, Gerbault (1978) studied her daughter, Muriel, who was attending school. Gerbault kept extensive diaries of Muriel's English usage and tape recorded sessions when Muriel was playing with English-speaking children. In Cancino et al.'s (1975) study, which involved subjects of all ages, the researchers conducted home visits to collect data, as did Gillis and Weber (1976) and Hanania and Gradman (1977) in their studies.

The nature of the data collected

The data for these various studies was collected from children, adolescents, and a handful of adults; it was collected in classrooms and in homes. The nature and the volume of the data gathered are also of consequence. The nature of the data collected is related to the setting and is reflective of the planned-to-unplanned continuum. The more data available to the researcher and the longer the study period, the greater would be the opportunity for an in-depth look at the learner's development. The researchers were seeking to collect naturalistic data, which is alternately described as conversational data (Ravem, 1968), spontaneous speech (Butterworth & Hatch, 1978) and free speech (Gillis & Weber, 1976). In most cases this "naturalistic" data was supplemented by other sorts of data such as translation tests, elicitations,

morphology tests, and negation tests. The amount of data collected and the length of time over which the data was collected varied greatly across research projects.

In terms of sheer volume we have, on one end of the spectrum, Adams's (1978) study of ten school children, which involved two years of data collection. Over this two year period, she collected spontaneous speech, recording it by hand. A minimum of 12 hours per week was spent in the classroom to record the free speech data on the 10 students. As the collection took place in the classroom and on the playground, it was a very noisy environment and therefore impossible to tape the sessions. So Adams wrote down as many utterances as possible in a journal. On the other end of the spectrum is Milon's (1972) study of Ken's acquisition of English negation, based on 9 hours of taped sessions. The recording sessions were twenty minutes long and were performed at weekly intervals over an eight-month period. These sessions were conducted without the use of drills or structured exercises of any kind; there was "no attempt to manipulate, introduce, or control structural, lexical, or phonological elements" (Milon, 1972). With the exception of Milon, none of the researchers claim to have purely naturalistic data.

Gillis and Weber (1976) conducted 15 data gathering sessions with their informants. The sessions lasted two hours and took place over a five-month period. In an effort to elicit "free speech", the researchers used picture books, puzzles and games to engage the young boys in conversation. Ravem (1973) used "free conversation" and a translation test as his data. He utilized data from recordings of conversations between his son, the subject of the study, himself (Ravem) and his older daughter who

was bilingual. The conversations were recorded at four different times over a three-month period. These sessions occurred at least once a week (and often several times a week); they were recorded and subsequently transcribed. Within the conversations, Ravem attempted to elicit the speech structures he was studying. He used translation tests to act as a validity check, comparing them to free conversation. Butterworth (1972) gathered "spontaneous speech" from his informant, Ricardo, through conversations with Ricardo over a three-month period. He augmented his data with negation tests, elicited imitations, morphology tests, and translation data.

Noting that no two second language learners are the same, Wode chose not to rely on a rigid data collection plan. Because some subjects produce a lot of data spontaneously while others are more reserved, he adapted his procedure to match the subject. His data included handwritten notes with phonetic transcriptions and an assessment of the children's intentions. Also included were hours of tapes of spontaneous speech and experimental sessions (Wode, 1978).

The only study in which the researcher did not intervene and elicit speech from his informants was Felix (1981). In this case, a first year EFL class in Germany was videotaped for eight months. The videotaped material was supplemented by observations of three individuals who sat in the back of the classroom. The observers took notes about anything that they thought might help them better understand the learning process. It is important to note that the method of teaching was "liberal audio-lingual", i.e. repetition practice and pattern drills made up most of the classroom activities. Errors were corrected immediately and spontaneous utterances which

deviated from the lesson plan were blocked; the focus was on habit formation as the basis for learning. Felix was specifically looking at how the utterances of the instructed learners differed from the naturalistic learners studied previously.

The definition of stages and acquisition

As noted earlier, Klima and Bellugi (1966) defined their stages of acquisition based on the mean utterance length (MLU) of the children. In period I the MLU was 1.75 morphemes for each child, in period III the MLU was approaching 3.5 morphemes, and in period II the MLU was in between. MLU is "taken as a sensitive index of grammatical development among young children" (Gillis & Weber, 1976). First language acquisition and second language acquisition differ because when acquiring a first language a child not only learns the features of the language (its syntax, lexicon, and phonology) but also discovers that "language is used for relating to other people and for communicating ideas", whereas, the L2 learner understands the communicative function of language (Cook, 1991). In this case, the MLU measurement is not useful because the L2 learner, with their advanced cognitive abilities, is able to memorize larger chunks of language and, also, there are many formulaic phrases acquired early by L2 learners to facilitate communication, e.g. *I don't know*, or *I don't understand*.

In SLA there is not a general index for acquisition which makes it difficult to make comparisons between learners (Ellis, 1994). Defining stages is also difficult because the process of acquisition takes place in fits and starts, i.e. learners do not flawlessly produce a structure from the point of its first appearance in their

interlanguage (IL) (Braidi, 1999). This lack of a general index is substantiated in the research described herein; the researchers use three different methods to define stages. These are: 1.) stages based on periods of time (Hanania & Gradman, 1977), 2.) stages based on performance which is more specifically described as first emergence of a structure (Wode, 1978), and 3.) stages based on the relative frequencies with which structures are used (Cancino et al., 1975). These three techniques will be discussed in the next section, which describes the methods used to analyze the data.

Tools of analysis used for the data.

These studies were not always clear as to how the data was analyzed. In fact, in the case of Ravem (1968), it was not clear how the data was analyzed or how acquisition was defined. Below, I will describe how the researchers who explicitly mentioned their method of data analysis undertook this endeavor. I will be as clear as I can be given the limitations inherent in the literature.

One clear feature in the methodologies is the categorizing and subsequent counting of utterances. Milon (1972) and Gillis Weber (1976) both discuss the counting of utterances and both use the Klima and Bellugi study as a standard for defining the stages of development. In the case of Milon's study of Ken's acquisition of English negation, he counted 244 negative utterances. Milon allocated these utterances to three stages utilizing the rules developed by Klima and Bellugi. The cut off point for Stage I "is when Ken first embeds a negative morpheme, thus producing an utterance which cannot be characterized by Klima & Bellugi's stage I rule. The stage II cut off point is the first appearance of an overt tense marker in Ken's data,

producing an utterance which cannot be characterized by Klima and Bellugi's stage II rule" (p.3). Milon therefore assigns stages on the basis of emergence. Emergence is also referred to as first occurrence (Ellis, 1994).

In Gillis and Weber's study of the two Japanese brothers, progress was measured by their performance on the Peabody Picture Vocabulary Test and by the increase of their MLU production. The data is broken down by recording session (there were 15 sessions). The negatives, question forms and imperatives are counted for each session and percentages are computed for each device used. Then they examined the trends in usage of the various forms.

In Adams's (1974) study of 10 children (L1 Spanish; aged 4:11-5:9), her principal interest was the development of these children's auxiliary verb system over time. But, within the study, she also looked at the acquisition of negation and question formation. Monthly, Adams charted each student's auxiliary development. On the chart, she recorded when students used auxiliary verb forms correctly and when they had omitted auxiliaries that were required in adult speech. She "measured the increased use (or phasing out) of a pattern over time…After writing descriptions for the individual Ss, these were compared in order to find similarities across children" (Adams, 1978, p. 281).

Cancino, Rosansky, & Schumann (1975) also studied subjects with L1 Spanish. They were interested in how acquisition differed relative to the age of the subject, and their study included two children, two adolescents and two adults. Their focus was on acquisition of auxiliary verbs and also dealt with the related structures of

negation and question-formation. When analyzing the data they concluded that writing grammar rules for their subjects' evolving interlanguage was difficult and it did not serve as a practical descriptive tool. Instead they turned to cataloguing the various "negating devices" their subjects used, e.g. *no*, *don't, can't, isn't*, etc. Their analysis was limited to "proposition negating utterances" which they defined as an utterance which contains a negated verb. They eliminated *I don't know* from the sample concluding it was a memorized chunk.

The "relative frequencies" for these negating devices were calculated by determining the proportion of each device to the total number of negatives produced in a given period. These relative frequencies were then plotted on graphs. They analyzed the graphs to determine when a negative device is introduced and to what extent each device is used in relation to the competing devices.

Conclusions drawn by the Developmental Sequence Researchers

Wode (1978) studied the naturalistic L2 acquisition of English by his own children (L1 German) while in California for six months in 1976. Additionally, he studied data from the Kiel University project which covered the naturalistic L2 acquisition of German by L1 English children living in Germany. He looked at phonology, plural inflection, and negation. His results led him to disagree with what he termed the "L1=L2 identity hypothesis" (Wode, 1978), i.e. that L2 acquisition was similar to L1 acquisition. His conclusion was that, on a surface level, the developmental sequences for L1 and L2 acquisition were not the same, but that on a deeper level they might be. He used the surface example of an utterance produced by

one of his subjects which did not have a parallel in L1 English. That utterance was "John go not to school" (Wode, 1978). Wode concluded that there was not enough evidence to prove the L1=L2 identity hypothesis and that there appeared to be interference from L1.

Cancino, Rosansky and Schumann (1978) agreed with Wode on both counts, i.e. that L1 and L2 developmental sequences are not the same and that there is some reliance on L1 in the acquisition of L2. Within their study they examined developmental sequences for negation and question formation. They found no convincing evidence for the stages outlined by Klima and Bellugi (1966). They also concluded that there was L1 interference in the case of negation. Cancino et al. identified the following sequence in the development of negation among their subjects:

(a) *no* + Verb (*no V*)
(b) *don't* + Verb (*don't V*)
(c) auxiliary – Negation (*aux-neg*)
(d) analyzed *don't* (*don't*)

> The *no V, don't V, aux-neg,* analyzed *don't* sequence exhibited in our subjects' speech suggests that Spanish speakers' first hypothesis is that negation in English is like negation in Spanish, hence the learners place *no* in front of the verb. The learners' next hypothesis appears to be that the negator in English is not *no*, but *don't*, and *don't* is placed before the verb. At this point, one can argue that *don't* is simply an allomorph of *no* and that *don't verb* constructions are still essentially Spanish negation but with the negator slightly more anglicized. Then when the learners begin using *aux-neg*, and the analyzed forms of *don't* it will appear that they have learned that English negatives are formed by putting the negative (n't, not) after the first auxiliary element (Cancino, Rosansky, & Schumann, 1978).

Five of their six subjects exhibited acquisition of negation in the above order. Only one did not; this subject, Alberto, exhibited only two forms of negation, *no V* and

don't V. The *no V* form was the dominant form. They concluded that his interlanguage was pidginized (Cancino et al., 1978).

Butterworth (1972) came to a similar conclusion in his case study of an adolescent with L1 Spanish who was attending junior high school in Laguna Beach, California. He found that his learner exhibited negation structures similar to those described in Klima and Bellugi periods 1 and 2 such as: *me no go, no go, me no ski, no understand.* However, Butterworth stated: "I believe there is surface similarity between Klima and Bellugi's Stages I and II and the Spanish negative" (p. 56). But this study may provide evidence that the universal mechanism for language acquisition remains available to adolescents when acquiring a second language; that is if these patterns are not the result of the informant's L1 influence.

My knowledge of Spanish suggests that Butterworth might be right when he concludes the pattern of negation for Spanish, with its similarity to developmental patterns in L1 English, make it difficult to answer whether Spanish speakers are influenced by transfer from their L1 or if they are forming rules on some other basis. However, Spanish L1 speakers do move through stages of acquisition in the case of negation and eventually acquire the analyzed *do* formation, which is not like any Spanish structure.

It has been noted that L2 English learners whose L1 has pre-verbal negation (such as Spanish) may stay at the pre-verbal negation stage longer than those whose L1s have post-verbal negation (such as German) who pass through this phase fleetingly (Schumann, 1979). To put this another way, if a student's native language

forms a negative with external negation it may take the learner longer to notice that English speakers do not form the negative that way (Lightbown & Spada, 2003).

In two studies, Milon (1974) and Gillis and Weber (1975), which looked at Japanese children's acquisition of ESL, the researchers clearly stated that they saw no evidence of L1 influence in the acquisition of the structures they explored. Milon, whose subject was a 7 year-old Japanese boy, examined the development of negation in the boy's acquisition of English. He found structures similar to those reported by Klima and Bellugi. Gillis and Weber reported that their subjects exhibited development similar to that reported in Klima and Bellugi for negation.

Further support for the L1=L2 hypothesis is provided in the study by Hanania & Gradman (1977) of a nineteen-year old Saudi woman's acquisition of English as her L2. "The need for basic information on adult language learning" prompted this study. Over an eighteen-month period the researchers visited the subject monthly in her home. The subject, Fatmah, was the wife of a graduate student and mother of two children; she had arrived in the U.S. six weeks before the study began and when she arrived she knew no English. The researchers divided the data into six groups, each covering a three month period. Fatmah's progress was slow: "It may be said that Fatmah's early development in English acquisition was very slow but it followed a consistent pattern" (p.82). Neither Hanania & Gradman's methodology nor their analysis was explicitly described. However, they did find evidence of simple rule formation for English negation; this is summarized in Table 3 below which is taken from their study. As stated earlier, a period for this study is defined as a three-month

period so Period I-IV (referenced in the chart below) is equal to a 12-month period; and Period V-VI is equal to a six-month period.

Table 3. Hanania & Gradman's presentation of Fatmah's Negation Development

Development of Sentence structure: Formation of the negative

Stage	Structure	Example
Initial Stage	No + N	No [I can't speak] English
Period I-IV	Not + Ving Adv	[It's] Not raining [He is] Not here
Period V-VI	(I)+ don't + V I + can't + V (+obj)	Don't eat I don't know I can't speak English I can't understand

(Hanania & Gradman, 1977)

As a result of these studies it is accepted that L2 learners of English exhibit developmental sequences in the acquisition process. However, there is no consensus as to whether the developmental sequences are the same for L2 English learners as those exhibited by L1 English learners, i.e. while some of the research outlined above supports Wode's L1=L2 hypothesis, not all the researchers support this view. Also there is no consensus as to the influence of a learner's L1 on their L2 acquisition. The researchers (Butterworth, 1972; Cancino et al., 1975) who used informants with L1 Spanish concluded, to varying degrees, that L1 did exhibit transfer to acquisition of L2 English. However, Milon (1972) and Gillis and Weber (1976) found no evidence of L1 interference in their Japanese informants acquisition of English.

Summary

In discussing the methodologies used in the studies of L2 acquisition of the developmental sequences for negation, a few areas cause concern. The primary one in my mind is the data used by these researchers. While much of the data was

naturalistic, it appears that across the board, the researchers engaged in various elicitation techniques as well. Ravem and Adams state that their elicitation and translation tests provide supporting documentation for the forms that were present "naturalistically". However, the conclusions they draw do not make a distinction between the elicited data and the naturalistic data. Therefore, the developmental sequences they describe consist of differing data types.

The data drawn from elicitation and translation could well differ from naturalistic data because the subject could be paying more attention to form. From personal experience I consider these different, i.e. elicited speech and naturalistic speech. For example, using the past preterit form in Spanish conversationally, I often confuse the endings for first and third person singular. However, when tested on these I am able to differentiate. So while I know the correct form at some level it is not readily accessible to me in daily use. Larsen-Freeman & Long (1991) point out that:

> While we remain resolute in support of the use of elicitation procedures, we now recognize that we must not only be concerned with whether or not performance resulting from elicitation procedures parallels natural performance; we must also be aware that subjects' performance varies from task to task (p.31).

They go on to say that "researchers need to control for task in their studies and to make sure that the tasks used in their studies and those of other researchers are the same before comparing findings across studies" (p.33).

Not only is the data variable and mixed but the methodologies used are not always explicit, and different researchers define acquisition differently. While Wode

uses the standard of first emergence, others depend on which structure is used most frequently at a given point in time. The standards appear different.

In spite of the weaknesses, the researchers seem to come to the same conclusion, which is that L2 English is acquired in 'developmental sequence' and that the sequences have an order, specifically regarding the acquisition of negation. They did not agree as to whether the L1 and L2 orders were the same. And the principal variable discussed was to what extent, if any, the learner's L1 influences the order. The developmental sequence literature is really rather sparse and certainly quite dated. Furthermore, in the studies I have reviewed only two looked at adults, and only two looked at second language acquisition in a classroom setting (neither of which dealt with adult subjects).

In my study, I revisit this issue using the Lab School database. Specifically, I look at one adult learner in a classroom setting to see if I can find evidence of a developmental sequence for negation. The Lab School database provides longitudinal language data which allows me to look at a learner's language development over time. To the best of my knowledge, this is the first study of an adult's acquisition of English negation using classroom language. If there is evidence of these sequences in an instructed learner's speech samples it would provide limited evidence that learners pass through these stages regardless of the type of exposure they have to English, i.e. whether it is naturalistic or instructed.

Research Questions

1.) What negative structures are present in the interlanguage of a beginning-level learner enrolled in the PSU Lab School?

2.) Does this learner exhibit stages of development similar to those found in Cancino, Rosansky, & Schumann's (1975) study?

In the following chapters I describe the method I use to answer these research questions and the results I obtain using this method. Then I return to the existing literature to see how my study fits into this larger picture.

Chapter 3

Method

Introduction:

In this chapter I explain the process used to ascertain the development of negation in the interlanguage of an adult studying English as a Second Language (ESL) in a classroom environment. I begin with a description of the Lab School at Portland State University which is the setting for my study. The Lab School provides a unique opportunity for researchers to perform longitudinal studies in second language acquisition. Then I describe the subject of my study, including how and why I chose him. Finally, I will spell out how I collected and analyzed the negative utterances which are the basis of my research.

Setting:

The data was drawn from video recordings of classroom activities in the Adult English for Speakers of Other Languages (ESOL) Lab School at Portland State University (PSU), one of two National Center for the Study of Adult Learning and Literacy lab sites. The Lab School is a partnership between PSU and Portland Community College (PCC). At the Lab School, regular instructors from PCC teach beginning-level ESOL classes. These classes are representative of many adult ESOL classes in Portland. At the Lab School there are two classrooms; each classroom is equipped with six video cameras and five microphones. The classes are recorded daily. Each day the teacher and two students (on a rotating basis) wear wireless microphones. The students wearing the microphones in a given class session are also

the focus of corresponding video cameras. These audio and video recordings allow researchers to hear student utterances while looking at the attached video. The Lab School provides a unique research opportunity because of the high quality audio/video data that are produced (Disbrow-Chen, 2004; Garland, 2002; Ouellette, 2004).

The Lab School, in conjunction with PCC, has offered Level A (beginning) and Level B (high beginning) classes since its inception in September 2001. Initially only these beginning levels were offered because the focus was on the early stages of adult second language acquisition (Reder, Harris, & Setzler, 2003). Subsequently, in September 2003, Level C (low intermediate) and Level D (intermediate) classes were added to the curriculum at the Lab School. The Levels A-D are assigned by PCC; for more information about the Levels see Appendix A. Since September 2001, 24 hours a week of classes have been recorded. Half of these classes have been coded, based on participation patterns and activities. These codes enable researchers to search the corpus for language of interest. A part of each coded class has been transcribed (Reder et al., 2003).

The ESL classes are content-based and taught using the communicative method of teaching. Typically, the teacher presents material as a lead-in to an activity. The students work in various groupings on these activities - individually, in pairs, in small groups or as a class. Pair activity is encouraged to maximize the speaking opportunities for the students. The textbook is theme based and each unit covers a specific topic, e.g. the family, downtown, jobs, etc. Each unit has its own grammar point. Negation is not explicitly taught but it is covered in the form of an option within

the context of yes/no questions. In these beginning-level classes, the utterances, *No, I don't* and *No, I can't,* are the most common options to yes/no questions.

Subject:

The subject of my study is Jaime (pseudonym). Jaime is originally from Mexico and his first language is Spanish. In Mexico he attended school for 12 years and received a high school diploma. At the time he entered the Lab School, he was 33 years old and had lived in the United States for nine years. He enrolled in the Lab School to improve his communication skills at work. Prior to his enrollment he had not studied English formally. Jaime was the subject of Ouellette's (2004) study, "Making the Effort: A Study of One Student's Communication Strategies in an ESL Classroom"; the background information I provide here was drawn from her research.

Jaime was enrolled in the Lab School for six terms from June 2002 through December 2003. During his attendance he progressed from Level A (beginner) to Level C (low intermediate). He spent two ten-week terms in Level A, three terms in Level B (high beginner) and one term in Level C. At the Lab School (as in all PCC-sponsored classes) it is common for students to remain at the same level for more than one term (Disbrow-Chen, 2004) so Jaime's repetition of Levels A and B are the norm. In fact, based on his progression from Level A to Level C while studying at the Lab School, he would be termed a successful learner. Given his age, prior education and first language, he is considered a typical example of a Lab School student (Ouellette, 2004).

I selected Jaime to be the subject of my study for five reasons: 1.) I assumed his success in advancing two levels would translate into measurable language development and evidence of movement along the continuum of developmental sequences. 2.) Jaime has a clear and loud voice making his utterances easy to hear and transcribe. 3.) I am familiar with the Spanish language, facilitating my data analysis, specifically, in looking at possible L1 interference. 4.) Upon completion of the M.A. program I want to teach English to beginning level Spanish-speaking adults; Jaime is representative of this population. 5.) A goal of the Lab School researchers is to develop in-depth profiles of a handful of learners and Jaime was the subject of Ouellette's study. Thus, another study of the same student would add depth.

In her study of Jaime, Ouellette notes that he is the kind of student she would like to have in her classroom and I agree. He is an active participant in the classroom activities and appears to be engaged in the process of learning. He is supportive of his fellow students, often giving them a thumbs-up signal or saying "*Good job*" when they offer their answers to his questions. At times, he encourages his classmates to ask the complete question by pretending not to understand their fragmentary utterances. He has an out-going personality, a pleasant manner and a ready laugh.

Data Collection:

After selecting Jaime as my subject, I turned to gathering data which consisted of his negative utterances produced in the classroom setting. As mentioned earlier, each class at the Lab School has two wireless microphones which are assigned to students throughout the term on a rotating basis. The recordings allow researchers to

listen to the assignee's utterances clearly despite the noisy classroom environment. It is also possible to hear the utterances of the student seated next to the assignee fairly clearly. To obtain Jaime's speech samples I had to determine when Jaime was wearing the microphone or was seated next to the student wearing the microphone. To do so, I used a database which is maintained by the Lab School. This database contains information about the classes at the Lab School, including whether a student either wore the microphone on a given day or sat next to the student wearing the microphone for that day. I identified all the sessions in which Jaime was either wearing the microphone or sitting next to the microphone-wearer, the sessions available for data collection. (Appendix B is a complete list of these sessions). Table 4 below provides the summary information of the class sessions available for data collection as well as the number of classes from which I drew my data. Although, it was disappointing that he only wore the microphone once in his only term of Level C[4], at this point there appeared to be adequate data available to perform my study.

Table 4. Class Sessions Available for Data Collection

Term	Level	Times with or near microphone	Sessions used for this study
Summer 2002	A	2	2
Fall 2002	A	5	3
Winter 2003	B	7	3
Spring 2003	B	5	3
Summer 2003	B	4	2
Fall 2003	C	1	1
Total		24	14

[4] This was probably due to his sporadic attendance in this, his final, term. Of 17 possible class sessions, he only attended 7 full sessions and 7 half sessions.

Initially, I gathered my data from the class sessions that the Graduate Research Assistants had reviewed, designated participation patterns, and partially transcribed. Using this method I obtained speech samples for 10 of the 24 possible sessions, i.e. sessions when Jaime was wearing the microphone or seated next to the person wearing the microphone. To round out the sample and try to gather data from 2-3 sessions per term, I selected four more sessions based on date. I tried to get a class for each month in order to have language samples at regular intervals. As a result, I did not use every session available but the data represent speech samples at approximately one-month intervals.

To begin my search, I used the Class Action[5] software's Query program to obtain play lists of Jaime's utterances. I requested play lists[6] for the following participation patterns: Pair and Free Movement because these would give me the most student speech, i.e. when students were talking to one another. These participation patterns are designated by Graduate Research Assistants. They review half of the lab school sessions and assign participation patterns to "reflect the grouping of the class". The participation pattern 'pair' means that the "students are working and talking in pairs in the context of varied pedagogical activities" (Reder et al., 2003, p. 551). In 'free movement' activities students are moving around the classroom asking questions to a variety of their classmates. I then watched each clip[7] and noted the following: the

[5] Class action software was developed to attach descriptive codes and transcription to the collected data. This allows a researcher to search the data base for interactions of interest (Ouellette, 2004).
[6] A play list is a series of video clips of the classroom activities.
[7] A clip is a portion of the classroom media with a specified begin and end time and a specified camera angle.

length of the clip (including beginning and end times), the nature of the activity, and whether the clip included any negative utterances.

After my first pass through the clips I returned to the clips with negative utterances and I reviewed these again. Some of the clips I viewed had already been transcribed. When they had not been transcribed; I transcribed Jaime's negative utterances and the utterances that preceded it. I transcribed the preceding utterance to provide context, which would prove valuable when the data analysis began. When I transcribed the negative utterance I recorded the time of the utterance for future reference.

My final selection of classes is shown below in Table 5. This table also shows the number of minutes of classroom time from which the data was drawn, i.e. the amount of time when Jaime was engaged in pair or free movement activities. I assigned session numbers to the classes I used to facilitate future discussion.

Table 5. Final Class Selection				
		level	Session number	Minutes Viewed
Summer Term	June 24, 2002	A	One	13:20
	July 25, 2002	A	Two	47:31
Fall Term	September 26, 2002	A	Three	31:20
	October 17, 2002	A	Four	49:11
	November 14, 2002	A	Five	21:00
Winter Term	January 21, 2003	B	Six	17:52
	February 18, 2003	B	Seven	8:55
	March 4, 2003	B	Eight	27:23
Spring Term	April 4, 2003	B	Nine	30:45
	April 25, 2003	B	Ten	16:58
	May 13, 2003	B	Eleven	10:00
Summer Term	July 1, 2003	B	Twelve	22:00
	July 22, 2003	B	Thirteen	14:45
Fall Term	October 17, 2003	C	Fourteen	40:48
			Total time	5:51:48

For the sessions which had not been previously reviewed by a GRA, I used a different procedure to find the pair and free movement. I used Class Action Software and selected the date and class session I wanted to review. Then I fast forwarded through each session to determine when the class was involved in these activities (pair and free movement). I noted the beginning and end time of the activities and the camera number which was focused on Jaime. Using this information I created a play list for each date consisting of clips of each of these activities. I reviewed each clip to determine if Jaime produced any negative utterances and when he did I transcribed this utterance along with the preceding utterance to provide context. When I had all

the negative utterances recorded by date and time, I proceeded to categorize these utterances using the system described below.

Coding the Data:

After collecting all the negative utterances, I printed them out by class session. In order to get a sense of the ways in which Jaime negated utterances and the form these utterances took, I reviewed the first session for which Jaime had produced a significant number of negative utterances. Based on that review, I established categories for the utterances which are listed along with their definitions and sample utterances in Table 6 on the next page.

An important consideration in this process was the level of support provided for production of these utterances, i.e. how much language support is provided to the students for a given activity. Were the questions written on the board or in a book? Were there modeled answers? I chose three categories to define the level of language support: 1.) repetition; 2.) modeled; and 3.) spontaneous. After reviewing many of the activities I developed these categories based on what the data revealed. Repetition included all the utterances which were simply repeated after the teacher (or in some cases the interlocutor) provided the utterance. Modeled included the utterances available to the subject either in writing on the board or in the book or on a worksheet. And spontaneous utterances were those which were off script, i.e. when he was engaged in conversation with students that had nothing to do with the exercise at hand.

Table 6. Categories for Coding the Negative Utterances

Category	Definition	Example
1. Negated noun phrase	phrases with a negative particle and a noun	*No pencil* *Nothing family*
2. Negated Propositions	complete thoughts	
a. With verbs	utterances which include a negated verb	*No cooking* *I no cooking in my house* *Not much clean my house*
b. Without verbs	utterances which consist of a lot of information but no verb	*Never family here.*
c. Anaphoric	the negative particle is used to negate a previous utterance; included in this category are *no* answers to questions	*You living with your fathers and mothers. No. I living friends.*
3. Other phrases	Anomalies which do not fit elsewhere	*Me never_me only for sleep.* *No, no in house.*
4. Formulaic chunks	unanalyzed phrases	*I don't know.* *I don't understand.*
5. Confirmations	the subject confirms the answer given by the interlocutor	Jaime: *Can you say a tonguer* [stet] *twister?* Partner: *No I can't.* Jaime: *No.*
6. Self-corrections	the subject corrects himself, sometimes mid-sentence	*What do you want no what do you like for lunch?*
7. Correcting others	the subject corrects others	Jaime: *Show me the ring.* Partner: ((points to something on worksheet)) Jaime: *No. Ring*. ((points to the ring))

For each day's transcript I numbered negative utterances and recorded them on a worksheet by category (See Appendix C for a sample worksheet). Beside each utterance I noted whether it was spontaneous or a repetition. I chose modeled to be the

default and made no notation for these because, in most cases, modeled responses were available to the students. After coding all the utterances based on the categories and level of support, I identified the negative forms used to construct the utterances. These forms included: *no*, *not*, *don't*, *never*, *nothing*, *can't*, *neither*, and *didn't*. I proceeded to count the negative utterances by category and to count the negative form used in each of these utterances.

When counting, I used the following rules:

1.) I counted an utterance such as *No, I don't* or *No, I can't* as one negative utterance and in these cases, I counted the negative form for these utterances as *don't* and *can't* respectively.

2.) In cases where Jaime repeated the same phrase two or three times in one turn, I counted each of these as separate utterances. For example, Jaime said: *No working. No working. No working*, and I counted that turn as three negative utterances.[8]

3.) I counted false starts which ultimately resulted in an understandable utterance, such as *I don't_ I don't_ I no the exerc*[ise], as one negative utterance. In this case I counted *no* as the negative form because it was his final choice of forms.

After coding all the utterances, counting the utterances by category, and counting the negative forms used, I proceeded to my data analysis.

[8] Every utterance produced is a separate speech act and each utterance could have a separate meaning. In this case Jaime was referring to the responses of his previous three interlocutors to the question: *Do you go to work Thursday?* Pointing to each one in turn, he said: *No working. No working. No working. Just shopping.*

In order to achieve a level of reliability in my coding and counting, I asked three other graduate students to code and count the negative utterances for two of the sessions to see if I was on the right track. I provided them with my definitions of categories and my groupings relative to level of support together with the transcripts from two sessions. I asked them to identify all the negative utterances and assign them to the categories. This review by my colleagues and the resulting discussion was very helpful. For the most part we agreed on the category of the utterance. The most helpful part was that my colleagues identified negative utterances that I had overlooked. This caused me to review all the transcripts to make sure my counts were complete and that my categorization was consistent.

Data used vs. data ignored

Before discussing how I analyzed the data it is necessary to point out that I did not include all the utterances which included a negative form in my analysis. In collecting the data, I recorded all utterances by my subject that included a negative form (these included: *no, not, don't, never, nothing, can't, neither* and *didn't*). Upon closer review I found that some of these negative forms were used in a manner which was not a reflection of the development of his interlanguage relative to negation. For example, Jaime would often repeat his interlocutor's negative utterance possibly to confirm the response; as in Session Four when he was working with his partner to determine what she did on the days she did not come to school:

2:38:00	Jaime:	*You Thursday school?*
	Partner:	*No*
2:38:17	Jaime:	*No*
	Jaime:	*You work Tuesday?*
	Partner:	*No*
2:38:22	Jaime:	*No*

In this case I counted these "*no*'s" as confirmations, i.e. confirming his partner's response. Also, he used '*no*' mid sentence to correct himself: e.g. in Session Five he asked his partner: *What do you want no what do you like for lunch?* I counted these *no*'s as self-corrections. Additionally, he used *no* to correct his partner, such as when he was spelling his name and the letters were recorded incorrectly. For the purposes of this research project I am not including these negatives in my analysis because they are not a reflection of the development of his syntax for negation but serve other linguistic functions which are not the subject of this study.

Data Analysis:

The first step in my data analysis was to review the counts I had made of the categorized negative utterances and negative forms used to create these utterances. I looked for trends in the data. Were there noticeable increases or decreases in the use of specific negative forms or categories of negative utterances? After I identified the trends, I looked more closely at the actual utterances by category to see what shape they took and if there were any noteworthy patterns. To examine the patterns, I

identified the structure of utterances, e.g. *Nominal + neg*[9] *+ verb*. Then I looked to see if there was a preferred pattern in a given period. Finally, I examined whether these patterns changed over time.

I elected not to gloss Jaime's utterances because it is not possible to do so with much accuracy. For example, his partner asks, *May I borrow a pencil?* He responds, *No pencil*. His response could be glossed as *I don't have one* (the modeled answer) or *I have no pencil*. My purpose is to find patterns in his development of English negation and I felt that glossing would not be particularly helpful to the process.

Conclusion:

Using the method described in this chapter I selected Jaime as the subject of my study. After sifting though the available classroom data, I selected fourteen class sessions during which Jaime was either wearing the microphone or seated next to the student wearing the microphone. Within these sessions I focused on pair and free movement activities and isolated all of Jaime's negative utterances. Then I turned to analyzing these utterances based on their structure and the negative form used to create them. In the next chapter I will discuss my findings.

[9] Where neg is the negative form used by the subject, e.g. *no, not, don't*.

Chapter 4

Results

Introduction:

In this chapter I reveal the results of my research. To begin I discuss the general nature of Jaime's classroom talk. Specifically, I look at the effect of language support provided by the classroom activities. Then, having consolidated the data by PCC ESL Level, I describe what I found relative to the distribution of negative forms Jaime used to create his negative utterances and the distribution of the negative structures which occurred in his interlanguage. Finally, I provide a description of his negative utterances and how they evolved as he moved from Level A to Level C.

Modeled vs. Spontaneous

Prior to examining the nature of Jaime's interlanguage relative to his production of negative utterances, I describe the effect that language support provided in the classroom had on his production. In all the activities there was modeled speech provided to the students, either on the board, on a worksheet or in a book. Many of the exercises included modeled responses such as '*Yes, I do*'/'*No, I don't*' or '*Yes, I can*'/'*No, I can't*'. There were times when Jaime and his partner had finished the exercise and launched into 'off-task' talk; however, in most cases this talk involved language included in the exercise. For example, in Session 4, Jaime and his partner were given strips of paper describing daily activities which they were to put in order. Upon receiving the strips and prior to receiving instructions from the teacher, Jaime's partner promptly put the strips in order. The teacher gave instructions to the class but

Jaime and his partner had completed the task. So his partner asked Jaime to read the strips; Jaime didn't understand her and the following dialogue ensued:

2:06:54	Partner:	*read*
	Jaime:	*me eat uh*
	Partner:	*read - you eat in restaurant on Sunday*
2:06:59	Jaime:	*ah no.*
	Partner:	*read*
2:07:01	Jaime:	*no no no no. no Sunday*
2:07:05	Jaime:	*yesterday eat in restaurant. (2) yesterday.*
		(1) no_I no I no cooking in my house
	Partner:	*yeah*
	Jaime:	*no cooking*

The first strip said "I eat in a restaurant on Sunday" and Jaime's partner wanted him to read that and the following strips. It appears that he misinterpreted it as an inquiry (Did he eat in a restaurant on Sunday?); and a conversation ensued regarding his eating and cooking habits. This conversation is spontaneous but the language they are using is provided in the exercise (on the strips). This is just one example; but in most of the cases of spontaneous speech, the language used in that talk was available to the interlocutors. It was available in different forms; these forms included: modeled answers provided by the teacher and perhaps written on the board, language in a book or on a worksheet, and, as in the case described above, strips of paper with sentences written on them. Despite the fact that the exercises had modeled answers, Jaime often

did not provide the modeled answer, e.g. when asked *Can I borrow a pencil?* his answer was *No pencil*, rather than the modeled response: *I don't have one*. In other words, his on-task utterances were much the same as his off-task utterances.

Because of this, in this chapter I treat all utterances as "classroom talk", i.e. utterances which are produced with various forms of support. I do this for two reasons: 1.) Jaime often strayed from the model in his responses and his non-modeled responses resembled the utterances he produced in his spontaneous conversations; and 2.) the spontaneous talk he generated was often based on language provided for the activity he had just finished.

Data used vs. data ignored

As noted in the previous chapter, when I collected the data I recorded all utterances by the subject which included a negative form these included: *no, not, don't, never, nothing, can't, neithe*r and *didn't*. Subsequently, I discovered that some of these negative forms were used in a manner which had nothing to do with his acquisition of negation. He used negative forms for three other purposes in his discourse; these were confirmation of his interlocutor's responses, self-correction, and correction of others. I am not including these negatives in my analysis because they are not a reflection of his interlanguage relative to negation but serve other linguistic functions which are not the subject of this study. Appendix E Tabulation of all Utterances with Negative Forms by Jaime includes a breakdown of all negatives by day.

Consolidation of data points

The number of negative utterances which Jaime produced varied greatly from one session to the next. In Table 7 below I provide the list of classes from which I drew the negative utterances for this study along with the total number of negatives, isolating the ones which are the subject of this study. These raw numbers give the reader a sense of the variability of Jaime's production of negatives. Because of this variability, I consolidated the numbers based on the Portland Community College (PCC) English as a Second Language (ESL) Levels[10]. This table also includes the PCC ESL Level for each class in order to provide a complete picture of how the classes under study were distributed by Level.

[10] Level A is beginning; Level B is high beginning and Level C is intermediate. Definitions of these levels are provided in Appendix A.

Table 7. Total negative utterances under study broken down by class				
PCC ESL Level	Term	Session	Total Negative Utterances	Utterances included in Study
Level A	Summer Term 2002	Session 1	1	0
		Session 2	9	8
	Fall Term 2002	Session 3	20	5
		Session 4	67	55
		Session 5	26	21
		Total for Level A	**123**	**89**
Level B	Winter Term 2003	Session 6	11	7
		Session 7	6	6
		Session 8	50	33
	Spring Term 2003	Session 9	20	9
		Session 10	11	7
		Session 11	7	7
	Summer Term 2003	Session 12	11	10
		Session 13	13	11
		Total for Level B	**129**	**90**
Level C	Fall Term 2003	Session 14	47	37
		Total for Level C	**47**	**37**
		Grand Total	**247**	**178**

Jaime spent two terms in Level A; three terms in Level B; and one term in Level C. Unfortunately there was only one session available to collect data for Level C; so the numbers for Level C represent only one class session.

Negative Forms

First, I will describe the negative forms Jaime uses to create negative utterances; in the next section I will examine the structure of his negative utterances. Table 8 below summarizes (by PCC ESL Level) these negative forms. (Appendix D: Negative Forms Used by Jaime provides a breakdown of the negative forms he used by day). When counting these forms I only counted one form per utterance; so for utterances such as *No, I don't* or *No, I can't*, I counted these as *don't*s and *can't*s,

respectively. While *no* was the most frequent negative form used, these figures indicate increasing complexity in Jaime's interlanguage with a marked reduction in the use of *no*, from 79% to 38% of negative forms used from Level A to Level B, together with the introduction of a greater variety of forms, including *can't* and *neither* in Level B and *didn't* in Level C.

Table 8. Summary of Negative Forms

	Level A		Level B		Level C	
Negative Forms	#	%*	#	%	#	%
No	70	79%	34	38%	17	46%
Not	2	2%	6	7%	6	16%
Don't	9	10%	21	23%	5	14%
Never	7	8%	7	8%	2	5%
Nothing	1	1%	7	8%	--	
Can't	--		12	13%	--	
Neither**	--		3	3%	--	
Didn't	--		--		7	19%
Total	89	100%	90	100%	37	100%

* Percentage of total negative forms

**modeled as "Me neither."

Categorizing the Negative Utterances

In the next section I will discuss the structure of negative utterances in Jaime's speech. Prior to describing the distribution of structures in his negative utterances, I provide Table 9 below which is a reproduction of Categories for Coding the Negative Utterances from the previous chapter, to assist the reader when reviewing the outcome of this study. This table lists the categories of negative utterances present in Jaime's interlanguage together definitions of the categories and sample utterances.

Table 9. Categories for Coding the Negative Utterances		
Category	Definition	Example
1. Negated noun phrase	phrases with a negative particle and a noun	*No pencil* *Nothing family*
2. Negated Propositions	Complete thoughts	
a. With verbs	utterances which include a negated verb	*I no cooking in my house* *Not much clean my house*
b. Without verbs	utterances which consist of a lot of information but no verb	*Never family here.*
c. Anaphoric	the negative particle is used to negate a previous utterance; as well as *no* answers to questions	*You living with your fathers and mothers. No. I living friends.*
3. Other phrases	Anomalies which do not fit elsewhere	*Me never_me only for sleep. No, no in house.*
4. Formulaic chunks	unanalyzed phrases	*I don't know.* *I don't understand.*
5. Confirmations	the subject confirms the answer given by the interlocutor	Jaime: *Can you say a tonguer* [stet] *twister?* Partner: *No I can't.* Jaime: *No.*
6. Self-corrections	the subject corrects himself, sometimes mid-sentence	*What do you want <u>no</u> what do you like for lunch?*
7. Correcting others	the subject corrects others	Jaime: *Show me the ring.* Partner: ((points to something on worksheet)) Jaime: *No. Ring*. ((points to the ring))

Distribution of Negative Utterances

Table 10 below is a summary of the structural types found in Jaime's formation of the negative in English. This table reflects the distribution of Jaime's negative utterances, based on the categories described above, during his six terms of study at the Lab School. The data is summarized by PCC ESL Levels. Appendix E -

Syntactic Structures Used by Jaime provides a breakdown of this information by day. The numbers in Table 6 reveal a significant reduction in the use of negated noun phrases from 20% to 8% in Jaime's production from level A to B, as well as a reduction in the use of verb-less propositions from 10% to 2% in the same period. Also noteworthy is the sharp rise in negative propositions with verbs from Level B to Level C, showing an increase from 32% to 68%.

Table 10. Summary of Jaime's Negative Utterances by Level

	Level A		Level B		Level C	
Structure Type	#	%*	#	%	#	%
1 Noun Phrase	18	20%	7	8%	3	8%
2 Propositions:						
a. Sentences with verbs	25	28%	29	32%	25	68%
b. "Sentences" without verbs	9	10%	2	2%	--	
c. Anaphoric negation	19	22%	32	36%	7	18%
3 Formulaic chunks	15	17%	12	13%	1	3%
4 Anomalies	3	3%	8	9%	1	3%
Total	89	100%	90	100%	37	100%

* Percentage of total negative utterances

On the surface these trends could indicate increased complexity in the patterns in Jaime's interlanguage as it moves closer to target. It is necessary to look more closely at the nature of these utterances and the patterns used before drawing such a conclusion.

Patterns of Production in Level A

During Jaime's tenure in Level A the predominant negative form that he uses is *no*. It is used before verbs and nouns and anaphorically. When he uses it with verbs he often deletes the pronoun, i.e. *No cook in house*; *No working*. *No* is the primary

negative form in Spanish, Jaime's native language, and Spanish also allows for pronoun deletion (often referred to as pro-drop). He appears to have an awareness of the negative form *don't* but only uses it in modeled answers, i.e. *I don't have any*, and formulaic phrases, i.e. *I don't know* or *I don't understand*. However, he tries to use it in another construction and abandons it:

Teacher: *When do you exercise?*

Jaime: *Me everyday bicycle. No need the* (demonstrates exercising).

Jaime: *I don't_ I don't _ I no the the exerc__*

Figure 1 below illustrates the patterns Jaime uses to create his negative propositions with verbs, as well as examples of these negative propositions. This figure illustrates the predominance of *no* as his negative form as well as the pro-drop, deletion of the pronoun; both of these features are characteristic of Spanish. However, they are also characteristic of children learning English as a first language.

Figure 1. Level A: Patterns in Negative Propositions with Verbs

Negative form (Neg): no
not
don't
nothing
never

Patterns exhibited

S→ Neg + verb + (complement) *No need the* [demonstrates exercising]
Not much clean my house
No cook in house

S→ No + verb *No working*
No cooking

S→ Nominal + neg + verb + (complement)
You no like dancing?
You no working?
I no have family in Portland.
Me no cooking.
I don't have any. [Modeled response]

Many of the negative propositions produced by Jaime in Level A were verb-less, i.e. *She no question for me*; and, *Never family here*; and, *Me never there*. Jaime constructs an interesting sequence of utterances in Session Five (November 14, 2002) when responding to the student question: *What time do you kiss your family?* On this occasion, through restatement of his utterances he moves from a verb-less response to one with a verb.

Student *What time do you kiss your family?*

Jaime *No*

Student *No?*

0:48:00 Jaime *I don't know; no no here in Portland*

No in Portland

I no have family in Portland

In this exchange Jaime works to reframe his language to clarify his meaning. It is not clear what factors are at play here that enable him to move from two verb-less propositions to a complete negated sentence. It may be that his interlocutor allowed him enough time to do so; or, it may be that he notices his error and attends to form.

Patterns of Production in Level B

Jaime continues to use *no* as his predominant negative form in Level B; it accounts for 38% of the total negative forms used. However, this is a significant reduction from his performance in Level A when he used *no* 79% of the time. Primarily, he uses *no* anaphorically and in noun phrases, only once does he use it with a verb (*That's no good*). After *no*, the other forms he used most were *don't* and *can't* representing 21% and 19%, respectively, of total negative forms. He uses these forms in modeled pair and free movement activities and in most cases, he elides the main verb. *Don't* continues to be used in formulaic chunks, e.g. *I don't know*. While *neither* is introduced in Level B, he does not appear to understand its correct usage. In a pair activity where the partners are comparing things they can do and the modeled answers are *I can*, *I can't*, *me too* and *me neither*, Jaime engages in the following exchange with his partner:

1 Partner: *I can speak Vietnamese*

2 Jaime: *I can _me too*

3 Partner: *You?*

4 Jaime: *Oh no no! (laughs) me neither, me neither*

5 Partner: *I can! I can!*

6 Jaime: *oh you can.*

7 Partner: *I can*

8 Jaime: *oh*

9 Partner: *You?*

10 Jaime: *no me neither*

11 Partner: *I can't!*

12 Jaime: *I can*

In turn 11 of this exchange, his partner is modeling the appropriate response for Jaime (*I can't*) but his response (*I can*) reflects his confusion with the whole exchange.

Jaime continues to use Negative Propositions with verbs at about the same rate as he did in Level A. In Level B these forms accounted for 29% of his negative utterances while in Level A they accounted for 27%. However, the shape of these utterances changed. Figure 2 below illustrates the patterns present in Jaime's speech in Level B. In Level B there were only two cases where Jaime did not include a subject in his negative propositions. These were: *Never speak Arabic* and a lone *can't*.

Figure 2. Level B: Patterns in Negative Propositions with Verbs

Negative form (Neg):	no	not
	don't	nothing
	never	can't
	neither	
Patterns exhibited		
S→ Neg + V + (complement)		*Never speak Arabic.*
S→ Nominal + no + V + (complement)		*I no have* *You no like noise_noises_noises.*
S→ Nominal+ Aux^{neg}		*I can't* *I don't*
S→ Nominal + Aux^{neg} + V + (complement)		*I can't do it.* *I can't sleep.* *I don't know what is the question.* *I don't have car*
S→ Nominal + verb + neg + (complement)		*That's no good.* *I'm not sure.*

Another notable feature of Jaime's production was the substantial reduction of negated noun phrases, which accounted for only 10% of his negative utterances in Level B as opposed to 23% in Level A. They continued to take the same form as those in Level A which was: *no + nominal*. For example in response to: *Can ride horse*? Jaime responds: *No. No. No horse*. instead of the modeled answer: *No, I can't*.

Patterns of Production in Level C

As noted previously, the data for Level C consists of only one class period. This is unfortunate; however, Jaime did produce a significant number of negative utterances in this session, 37 to be exact. Jaime's production of negative propositions demonstrate the most marked change in Level C. Sentences with verbs account for

68% of his negative utterances, up from 29% in Level B. Figure 3 below illustrates the patterns of these propositions.

Figure 3. Level C: Patterns in Negative Propositions with Verbs

Negative form (Neg):	no don't didn't	not never
Patterns exhibited		
S→ Neg + V + (complement)		*Never cook in home.* *No watch TV.*
S→ Nominal + neg + V + (complement)		*You no making food?* *You no have fun with Kim?*
S→ Nominal + Aux^{neg}	*I didn't*	
S→ Nominal + Aux^{neg} + V	*I don't care* *I don't have*	
S→ Nominal + verb + neg + (complement)	*It's not me.* *That's not early.*	

As in Level B, there were only two cases (out of a possible 25 in Level C and a possible 29 in Level B) when Jaime deleted the subject pronoun (also referred to as pro-drop) in a negative proposition with a verb. The sporadic appearance of the pro-drop feature in Jaime's interim grammar system speaks to the back and forth nature of interlanguage.

Conclusion:

The negative forms Jaime uses to create his negative utterances and the structure of these utterances changed as he moved from Level A to Level C in his tenure at the Lab School. Samples of these negative utterances may be viewed on the

Internet at http://www.labschool.pdx.edu/Viewer/viewer.php?Negation_development. The most significant changes in his use of forms were the reduction in his use of *no* and the resulting greater variety of negative forms he used over time. In terms of negative structures he shows a decrease in his use of negated noun phrases and an increase in propositions with verbs. In the next chapter I will discuss how the development of his system of negation compares with previous studies.

Chapter 5

Discussion

Introduction:

In this chapter, I look back to my research questions: 1.) What negative structures are present in the interlanguage of a beginning-level learner enrolled in the PSU Lab School? 2.) Does this learner exhibit stages of development similar to those found in Cancino, Rosansky, & Schumann's (1975) study? Using the results of my research that I outlined in the previous chapter, I answer these questions. Moving beyond my research questions, I discuss how this case study compares to the previous developmental sequence studies and how it fits into this larger body of work. In doing so, I acknowledge the limitations inherent in case study research and I suggest areas for future research.

What negative structures are present in the interlanguage of a beginning-level learner enrolled in the PSU Lab School?

In the previous chapter I outlined the negative structures used by Jaime as well as the negative forms used to create these structures based on the Portland Community College ESL levels (See appendix A for definition of these levels). While first language acquisition researchers use the mean utterance length as a way to define stages of acquisition, second language acquisition (SLA) researchers do not have a general index for acquisition (Ellis, 1994). The SLA researchers who study developmental sequences have used three methods to define stages: 1.) periods of time, 2.) first emergence of a structure, and 3.) relative frequencies of structures. For

the purposes of my discussion I will use the PCC ESL levels, as these are based on teacher assessment and therefore can be seen as a reflection of the students' English skills.

In his classroom talk at all levels, Jaime's negative form of choice is *no*. His use of *no* as his principal negative form is most prevalent at Level A (beginning) when he uses it in 79% of his negative utterances. While it continues to be his favorite negative form (as he advances from Level A to Level C) in his six terms of English classes at the Lab School, his usage declines to 38% in Level B (high beginning) and rises again slightly to 46% in Level C (low intermediate). At level A the second most prominent negative form which he uses is *don't*; however, he only uses it 10% of the time when forming negative utterances. And for the most part he uses it in formulaic chunks, e.g. *I don't know*, or *I don't understand*.

In his tenure in Level A, Jaime uses the negative form *no* with nouns, verbs and anaphorically. When using *no* with nouns and verbs in the simplest form these phrases look like:

No pencil.

No school.

No working.

No cooking.

The phrase *No pencil* can be viewed in two ways. The first is that Jaime has abbreviated the sentence: *I have no pencil* or *I don't have a pencil*; Cancino, Rosansky, and Schumann (1974) point out it could also be interpreted as the form: *No*

+ *nucleus*, which is an early form of negation in children learning English as a first language. Cancino et al. chose to interpret these utterances as if their subjects were eliding the verb. They reasoned that as their subjects were producing a variety of negative constructions of varying complexity, that it was more likely that these utterances were the result of ellipsis rather than the more simple *no* + *nucleus* form.

The most predominant negative structure Jaime uses across all levels is the negative proposition with a verb. In these constructions, at Level A, Jaime often uses *no* as the negative form and most of the time he deletes the subject of the sentence, resulting in sentences such as: *No cook in house* or *No working*. This use of *no* as a negative form as well as the deletion of the subject is consistent with Jaime's first language, Spanish. In Spanish *no* is the principal negative form and the subject pronoun is often deleted (referred to as pro-drop) as the verb form reflects the subject. Thus, these features of Jaime's early negative structures can be interpreted as L1 interference. However, this formation is also prevalent in children learning English as their first language.

While Jaime deletes the subject pronoun in 64% of the negative propositions with verbs he produced at level A, this number declines to 7% at Level B and rises slightly to 12% at Level C. As his exposure to classroom English expands, he increasingly uses the subject pronoun when creating negative utterances; however, he does continue to drop the subject pronoun on some occasions. Another change that occurs over time in Jaime's production of negative propositions is the decline in verb-less negative propositions. At Level A verb-less negative propositions account for

10% of his negative utterances while at Level B this number declines to 2% and to zero at Level C. This decline in verb-less propositions, along with the decline in negated noun phrases from 20% of negative structures to a constant 8% at Levels B and C, reflect the increasing well-formed-ness of Jaime's negative utterances.

A predominant form of negation Jaime uses across levels is anaphoric negation, i.e. a simple *no* in answer to a yes/no questions. These anaphoric forms account for 21% of his negative utterances in Level A; 36% in level B and 19% in level C. An example of this would be:

Partner: *Do you drink tea?*

Jaime: *No* ((shakes his head))

The form of this exchange is common to native speakers of English and of Spanish; the negative form, *no* is used in both languages. And a simple *no* in response to a yes/no question is acceptable and common to native speakers of both English and Spanish.

A negative structure which was modeled in Level A but which Jaime did not use until Level B was: S→ Nominal + Aux^{neg} (e.g. *I don't* or *I can't*) from which the main verb is elided. In spite of continued modeling of this form in Level A, Jaime did not use it until Level B. Maybe he was not ready to use this form as a Level A student. In Level A he consistently used negative forms such as *no cooking* or *no working* or *I no have family in Portland* in spite of the modeled use of *don't*. Maybe he was just more savvy at classroom interactions (i.e. had a better handle on the idea of modeled language) when he was in Level B and C.

Another marked change from level A to Level B was his use of the negative auxiliary, e.g. *can't*, *don't* as the negative form replacing the predominant *no* of level A. In Level B he uses these forms both with and without main verbs. Based on the data collected it is not possible to tell whether these forms are chunks or are analyzed. Previous researchers have contended that these were chunks when they occurred with mismatched tenses or the like. But as most of the language samples I collected are in the present tense, it is not possible to assess these in that manner. As they only appear in the contracted form (never as *do not* or *cannot*) and in most cases were modeled, it appears that they are chunks.

To summarize, at Level A Jaime's primary negative form was *no* and he often (65% of the time) deleted the subject when producing negative propositions with verbs. Both of these features can be construed as evidence of L1 (Spanish) interference. At Level B and Level C he continues to use these patterns but to a much lesser degree. His negative structures at these levels are quite similar. *Don't* and *can't* are used with regularity but these structures appear to be unanalyzed.

Does this learner exhibit stages of development similar to those found in Cancino, Rosansky, & Schumann's (1975) study?

Cancino, Rosansky & Schumann (1975) limited their analysis to negative propositions and they defined these as a negative utterance which included a verb. They identified the following methods to mark negation:

(a) *no* + Verb (*no V*)

(b) *don't* + Verb (*don't V*)

(c) auxiliary – Negation (*aux-neg*)

(d) analyzed *don't* (*don't*) (disappearance of *no V*)

The subjects of their study were two children, two adolescents, and two adults with L1 Spanish who were learning English naturalistically. Five of their six subjects exhibited acquisition of negation in the above order. The sixth subject was Alberto and they concluded that his interlanguage was pidginized as he only exhibited the *no V* and the *don't V* forms, with the *no V* form being dominant.

In Jaime's case, while in Level A, he uses the *no V* form most prevalently and in Level B he continues to use the *no V* form but it is not as common and he adds the *don't V* form and the *aux neg* form. He is moving along the continuum outlined by Cancino et al. but his movement is slower, in terms of elapsed time, than five of the six subjects of their study. They collected speech samples from their six subjects twice a month for 10 months. Their subjects moved from *No V* stage to the analyzed *don't* stage within that time period. Not only does Jaime move slowly along their continuum but he also exhibits a form not mentioned in the Cancino study; that is the *aux neg* with elided main verb (I *don't, I can't, I didn't*). This is actually a fairly advanced form in L1 English.

Like Cancino et al.'s subjects, Jaime continues to use the *no V* form even as he adopts the new forms. In the case of Cancino et al.'s subjects the *no V* form was used by their subjects up until they had acquired the analyzed don't form. There is evidence

that learners of ESL whose native language has pre-verbal negation (such as Spanish) are likely to use this *no V* form extensively and persistently. However, learners whose L1 has post verbal negation are likely to pass through the *no V* stage quickly (Schumann, 1979). Jaime's performance is consistent with this assertion.

While Jaime exhibits progress consistent with the Cancino et al. model, the question arises as to why his progress is slower than that exhibited by Cancino et al.'s subjects. This question is of particular relevance because I selected Jaime based on his success in advancing from Level A (beginning) to Level C (low intermediate) during his tenure at the Lab School. I identified him as a successful learner, yet his performance relative to the acquisition of negation is slower than that of Cancino et al.'s subjects.

In the process of gathering the data, my first reaction was that Jaime had made little progress in his quest for target-like negation. I initially drew this conclusion because the *no V* form was present throughout level A and B. Upon closer examination I realized that this form was being replaced by other more target-like utterances but it never disappeared. This is consistent with the performance of other learners of ESL whose native language has pre-verbal negation (such as Spanish) as discussed above. While I can only speculate as to why Jaime's development of negation is slower than Cancino et al.'s subjects; two reasons come to mind. The first is his exposure to English, prior to entry into the Lab School and during his studies there, and the second is age.

Relative to his previous exposure to English, Jaime had been in the United States for nine years prior to enrolling in the Lab School. Thus he had been exposed to an unknown amount of English for nine years. His placement in the beginning level class at the Lab School indicates that he had probably not gained much expertise in English over that nine-year period but it cannot be ignored. Maybe there was the beginning of fossilization taking place, but if so, the cycle appears to have been broken as he did demonstrate development in his system of negation.

He did indicate that he enrolled in English classes in order to be able to communicate more effectively at work, but it is unknown how much English is required to perform his job. His social life is another unknown. It is my experience that Spanish-speaking ESL students tend to socialize with other Spanish-speaking adults and not so much with Anglos. It could be that Jaime had more limited exposure to English than the subjects of Cancino et al.'s study. He attended English classes, which they did not, but it is not known how much he practiced and/or studied outside the classroom. This would impact his progress.

Cancino et al.'s subjects were two children, two adolescents and two adults. Five of the six subjects exhibited the stages of development outlined in the study; the sixth, one of the adults, did not. The other adult reportedly did not exhibit the early stages of negation, as her English was more advanced when she entered the study. The children and adolescents were attending school in an English speaking environment so they were exposed to English five days a week from four to six hours a day at a minimum. Plus, given the nature of a school environment they had to learn to

communicate effectively in English. The successful adult learner in the Cancino et al. study worked in an English-speaking household and was required to communicate effectively in English to perform her work. On the other hand, little is known about how dependent Jaime was on his English outside of the classroom. If he managed his affairs outside the classroom principally in Spanish and the only time he used English exclusively was during class time, this might account for his slow progress.

Another contributing factor may have been his age. Possibly comparing Jaime's progress, in terms of time, to the progress of two children and two adolescents is not particularly pertinent. Per the critical period hypothesis, adult learners of second and subsequent language are not as likely to achieve native-like competency as children learners are. The only conclusion that can be drawn is that Jaime's progress was slower than Cancino et al.'s subjects. With so little research on adult learners it is not possible to accurately assess or comment upon the speed of his acquisition. However, the path he was on to acquire the English negation system was similar to the one outlined in Cancino et al.'s research.

Looking beyond my research questions

At this point it is worthwhile to revisit the variables of previous studies discussed in the literature review and how this study fits into the larger picture. Within this broader context perhaps some light can be shed on Jaime's progress. Prior to this study there were only two studies which looked at adult acquisition of negation. One was the Cancino et al. study discussed above and the other was Hanania and Gradman's (1977) study of a 19-year-old Saudi woman, Fatmah. Two adult learners

were included in the Cancino et al. study; the interlanguage of one of the adults, Alberto (aged 33), was characterized as pidginized; the other adult, a 25-year-old woman, did not exhibit the early stages of negation, as she reportedly knew more English coming into the study than the other learners. She did, however, achieve well-formed negative structures. Hanania and Gradman's subject, Fatmah, was the subject of an eighteen-month study; her progress in acquiring negation in English is shown in Table 11 below (which was previously presented in the review of the literature). In this table each period represents three months.

Table 11: Hanania & Gradman's presentation of Fatmah's Negation Development
Development of Sentence structure: Formation of the negative

Stage	Structure	Example
Initial Stage	No + N	No [I can't speak] English
Period I-IV	Not + Ving Adv	[It's] Not raining [He is] Not here
Period V-VI	(I)+ don't + V I + can't + V (+obj)	Don't eat I don't know I can't speak English I can't understand

(Hanania & Gradman, 1977)

Based on this table, her progress is similar to Jaime's with the exception that she uses the negative form *not* where Jaime favored *no*. So what we have is Dolores, a Spanish speaking ESL learner, who doesn't exhibit the early stages of acquisition as outlined by Cancino et al. because she came to the study having achieved a more advanced stage of negation. Therefore we do not know what the early stages of her negation looked like. Then we have Fatmah and Jaime whose early stages of negation are similar, but we do not have any information about whether they eventually acquired target-like negation.

This study differs from previous studies in that all the data is drawn from classroom activities and I did not intervene in any way to encourage the subject to utilize negative forms. Most of the previous research relied on naturalistic data together with elicited data; but, the researchers did not differentiate between the two data types in their data analysis. No grand conclusions can be drawn as a result of this study because of its limited scope but it does add to the body of literature relative to developmental sequences. And it provides limited evidence that this learner in an instructed environment utilizes similar structures in the early stages of negation as learners in a naturalistic setting did.

This was the first study of an adult instructed learner, more aptly described as a "mixed learner", i.e. a learner who is taking classes in English and who lives in an English-speaking country and is thus exposed to English in his daily activities. In the previous two studies of adults, the subjects were learning English naturalistically. The setting differed from earlier studies in that it was based on classroom language; only Felix's (1981) study of German adolescents learning English as a foreign language used classroom language as the data for his analysis. Felix's classroom study and Milon's (1972) study of a 7-year-old Japanese boy were the only other studies in which there was no elicited language included in the language samples.

Limitations of this Study

This study is limited by the fact that it is a case study and therefore not generalizable. It reflects the performance of one adult learner and his acquisition of the early stages of negation. Each learner performs differently and acquires language

skills at different rates. All I can address here is the progress of this learner. Within the eighteen months of classroom instruction, the subject made some progress in his acquisition of negation, but we do not know whether he achieved (or will achieve) native-like competency. Also, the fact that there was only one data point at Level C limited my ability to analyze his performance at that level.

Future Research

As this is the first study of an instructed adult learner's acquisition of negation there is certainly room for more. There are different dimensions which could be explored given the wealth of data available at the Lab School. Researchers could study students with different first languages to see what their interlanguage relative to negation looks like. Researchers could study students who have moved from PCC Level A to Level D to see what shape their developmental sequences take. Researchers could investigate structures other than negation such as question formation or the acquisition of auxiliary verbs. There are many areas that could be explored. And as teachers use second language acquisition research to inform their teaching, the classroom is a logical setting for more research.

How this study fits into the larger picture

The original developmental sequence studies addressed the question of whether L2 acquisition of English followed the same pattern as L1 acquisition (referred to as the L1=L2 hypothesis (Wode, 1978)). If it did, this would provide evidence that some kind of universal mechanism for language acquisition remained available to L2 learners. In their study exploring the acquisition of six Spanish-

speaking L2 English learners, Cancino, Rosansky & Schumann (1978) found no evidence that their subjects acquired English negation in the same pattern as L1 English learners did. As Jaime's pattern of development is similar to the early stages outlined by Cancino et al., by deduction one can conclude that his development is not the same as L1 English learners. While the existence of similarities in developmental sequences in the acquisition of L1 English and L2 English may provide evidence that some kind of universal mechanism for language acquisition remains available to L2 learners, the absence of these similarities does not imply the non-existence of such a mechanism.

What can be said of Jaime's developing English negation? His development of negation exhibits systematicity in that there are clear patterns in how he constructs his negative utterances. Also it is dynamic as illustrated by the evolving nature of his system of negation. Both of these features are supportive of the notion of interlanguage. It can be said that Jaime's negative utterances are not just a bad imitation of English but rather a systematic reflection of the current state of his interlanguage.

If one views the acquisition of language via interlanguage as a continuum, the question arises as to whether that continuum begins with the learner's native language or begins with Universal Grammar or with some combination of the two. Cancino et al. argued that the prevalence of the *no V* form and the absence of the subject pronoun in the early stages of negation suggested interference from their subjects' L1,

Spanish[11]. This may be the case but the argument is not convincing, as these forms also exist in the early language of L1 English learners. This similarity between Spanish grammar and the early stages of acquisition in L1 English make it nearly impossible to know whether L2 English learners with L1 Spanish are relying on their L1 or some other mechanism.

The systematicity and evidence of interim grammars in a learner's interlanguage lends some support to the notion of a universal mechanism being available for L2 acquisition. This argument is more convincing if the interim grammars bear no resemblance to the learner's L1. Given the resemblance to Spanish of some of Jaime's early negative structures this argument loses strength. This study provides no compelling evidence for or against the availability of Universal Grammar in the acquisition of L2 English. However, given that Jaime's negative utterances show systematicity and are dynamic this study does support the concept of interlanguage.

Of interest in Jaime's development of negation is that at level A, in spite of continued modeling, Jaime did not use the phrase *I don't* from which the main verb is elided. It did not become part of his system of negation until level B. In fact in level A he only uses the *don't* form in formulaic speech, whereas in level B he begins to use it with main verbs in other than formulaic speech. This suggests that he was not ready to assimilate the *don't V* form during his time in level A, in spite of extensive modeling of this form; but he was ready in level B. Therefore, there may be a point in the

[11] In Spanish the subject pronoun is not required because the verb form is dependent on the number and person to which it refers.

process of acquisition when we are ready to adopt more complex forms and we resist the use of these forms prior to that time, regardless of input. This aspect of Jaime's acquisition of negation is illustrative of the complex relationship between what is taught in the language classroom and what is learned. As language teachers, we model correct forms repeatedly but the effect of this modeling may be delayed to a point when the student is ready to acquire the modeled form, as exemplified by Jaime's performance. This is similar to first language acquisition in that parents model correct linguistic forms for their children, yet the children do not acquire the forms until they are ready. If this phenomenon holds true across other forms and features in second language acquisition, then it is valuable for language teachers to be aware of it and to understand that the benefit of their instruction may not manifest itself immediately.

Implications for teaching

How can this study inform our teaching? There are two aspects of teaching that can be addressed. The first is the expectations we bring to the classroom relative to the performance of our students. The second is how the presence of developmental sequences in learner language might influence what we teach. Looking at our expectations of performance, understanding developmental stages helps us understand why a student might produce the utterance *I no cooking* when *I don't cook* is the modeled utterance. The *I no cooking* utterance represents the first stage of negation. It may be necessary for learners to hear a variety of utterances in order to move to the next stage. Regardless of what is taught the *I don't cook* (with unanalyzed don't) stage, or the next stage, will not emerge until the learner is ready. As teachers, this

research tells us that we can expose our students to a variety of target language structures but we need not be surprised if they do not produce the language we expect.

While we might adjust our expectations regarding the production of certain forms by our students, should we adjust what we teach relative to negation? If the learner is going to pass through predictable stages of development what does that say about how we should teach? It would be helpful for the teacher to be cognizant of the usual developmental path a student might follow on the road to target-like production. And with that understanding the teacher can consider the material that is being presented and where the students are on the path. Our teaching might be affected in that we should look at structures we are introducing with an eye to their complexity and the realization that the students might not be ready to acquire these forms.

We don't have enough information about how teaching and exposure to language forms actually effects second language acquisition. While we know that Jaime did not acquire *No, I don't* and *No, I can't* in his classroom talk until level B in spite of modeling in level A, we do not know why. That early modeling and exposure may have laid the groundwork for the later acquisition or use. Given what we know (and what we do not know) about acquisition there is not any strong reason to adjust what we teach based on the developmental sequence research. Two steps we can take are to adjust our expectations and to look at the complexity of the material with a wiser more discriminating eye.

***Conclusion**:*

This study differs from earlier studies of ESL learners' acquisition of negation in that it is the first study of an adult 'mixed' learner and it is based on classroom interactions with no interference from the researcher. Given these differences, Jaime utilized negative structures comparable to those used by naturalistic learners in the early stages of development. In his eighteen months of study at the Lab School he progressed along the continuum of development in negation but did not achieve target-like production. This is consistent with the fact that he was in a low intermediate ESL class at the conclusion of the study period. This study of Jaime's acquisition lends support to the construct of developmental stages in the acquisition of English negation by second language learners.

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Appendix A

Portland Community College - ESL Levels

There are four levels of ESL Classes.

Level A – This level is for beginners. Students at this level usually can say their names and addresses. They need help to conduct day to day business and usually have trouble giving or writing personal information independently. (Student Performance Level SPL 0-2)

Level B – This level is for high beginners. Students at this level usually can give information about themselves. They can use common greeting but usually can not engage in fluent conversation. (Student Performance Level SPL 2-3)

Level C – This level is for low intermediate students. At this level, students can satisfy common communication needs in daily life. They can ask and respond to questions and initiate conversations. They may need repetition for unfamiliar topics or when talking about abstractions. (Student Performance Level SPL 3-4)

Level D – This level is for the intermediate students. Students at this level can initiate conversations on a variety of topics. They can express their opinion about immediate surrounding and about more abstract ideas and concepts. (Student Performance Level SPL 4-6)

(Portland Community College, 2004)

Appendix B. Days Jaime wears the microphone or is seated next to the person wearing the microphone.

Term	Date	level	classroom
Summer Term 2002	June 24, 2002	A	206
	July 25, 2002	A	206
Fall Term 2002	September 23, 2002	A	206
	September 26, 2002	A	206
	October 10, 2002	A	206
	October 17, 2002	A	206
	November 14, 2002	A	206
Winter Term 2003	January 14, 2003	B	206
	January 17, 2003	B	206
	January 21, 2003	B	206
	January 28, 2003	B	206
	February 18, 2003	B	206
	February 25, 2003	B	206
	March 4, 2003	B	206
Spring Term 2003	April 4, 2003	B	204
	April 15, 2003	B	204
	April 25, 2003	B	204
	April 29, 2003	B	204
	May 13, 2003	B	204
Summer Term 2003	June 24, 2003	B	204
	July 1, 2003	B	204
	July 22, 2003	B	204
	August 5, 2003	B	204
Fall Term 2003	October 17, 2003	C	204

Appendix C. Worksheet for categorizing negative utterances.

Session Date:

Noun Phrases	Propositions with verbs	Propositions w/o verbs	Anaphoric	Formulaic chunks	Other phrases	Self-corrections
					Confirmations	Correcting others

Appendix D - Negative Forms Used by Jaime

	Summer Term 2002				Fall Term 2002						Winter Term 2003					
	Session 1		Session 2		Session 3		Session 4		Session 5		Session 6		Session 7		Session 8	
	24-Jun-02		25-Jul-02		26-Sep-02		17-Oct-02		14-Nov-02		21-Jan-03		18-Feb-03		4-Mar-03	
Negative Forms	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
No	--		6	75%	3	60%	44	80%	17	80%	4	57%	6	100%	9	27%
Not	--		--		--		2	4%	--		--		--		--	
Don't	--		2	25%	2	40%	3	5%	2	10%	3	43%	--		7	21%
Never	--		--		--		5	9%	2	10%	--		--		1	3%
Nothing	--		--		--		1	2%	--		--		--		1	3%
Can't	--		--		--		--		--		--		--		12	36%
Neither*	--		--		--		--		--		--		--		3	9%
Didn't	--		--		--		--		--		--		--		--	
Total	1	100%	8	100%	5	100%	55	100%	21	100%	7	100%	6	100%	33	100%

* As in modeled phrase: Me, neither.

Appendix D - Negative Forms Used by Jaime

	Spring Term 2003						Summer Term 2003				Fall 2003	
	Session 9		Session 10		Session 11		Session 12		Session 13		Session 14	
	4-Apr-03		25-Apr-03		13-May-03		1-Jul-03		22-Jul-03		17-Oct-03	
Negative Forms	#	%	#	%	#	%	#	%	#	%	#	%
No	5	56%	2	29%	1	14%	2	20%	5	45%	17	46%
Not	1	11%	1	14%	2	29%	--		2	18%	6	16%
Don't	2	22%	1	14%	4	57%	3	30%	1	9%	5	14%
Never	1	11%	2	29%			--		3	27%	2	5%
Nothing			1	14%			5	50%			--	
Can't			--				--				--	
Neither*			--				--				--	
Didn't			--				--				7	19%
Total	7	100%	7	100%	7	100%	10	100%	11	100%	37	100%

Appendix E – Tabulation of all Utterances with Negative Forms by Jaime

	Summer Term 2002				Fall Term 2002						Winter Term 2003			
	Session 1		Session 2		Session 3		Session 4		Session 5		Session 6		Session 7	
	24-Jun-02		25-Jul-02		26-Sep-02		17-Oct-02		14-Nov-02		21-Jan-03		18-Feb-03	
Structure Type	#	%	#	%	#	%	#	%	#	%	#	%	#	%
1 Noun Phrases	--		2	22%	--		15	22%	1	4%	--		1	17%
2 Propositions:														
a. Sentences with verbs	--		1	11%	2	10%	19	28%	4	15%	3	27%	--	
b. "Sentences" without verbs	--		1	11%	--		6	9%	2	8%	--		--	
c. Anaphoric negation	--		1	11%	1	5%	7	10%	10	38%	3	27%	5	83%
3 Formulaic chunks	--		3	33%	2	10%	6	9%	4	15%	--		--	
4 Anomalies	--		1	11%	--		2	3%			1	9%	--	
Subtotal			8	89%	5	25%	55	82%	21	80%	7	64%	6	100%
5 Self-corrections	--		1	11%	--		--		1	4%	--		--	
6 Other-corrections	1	100%	--		13	65%	1	1%	2	8%	1	9%	--	
7 Confirmations	--		--		2	10%	11	17%	2	8%	3	27%	--	
Total	1	100%	9	100%	20	100%	67	100%	24	100%	11	100%	6	100%

Appendix E – Tabulation of all Utterances with Negative Forms by Jaime

	Winter '03		Spring Term 2003						Summer Term 2003				Fall 2003	
	Session 8		Session 9		Session 10		Session 11		Session 12		Session 13		Session 14	
	4-Mar-03		4-Apr-3		25-Apr-03		13-May-03		1-Jul-03		22-Jul-03		17-Oct-03	
Structure Type	#	%	#	%	#	%	#	%	#	%	#	%	#	%
1 Noun Phrase	1	2%			2	18%			2	18%	2	15%	3	6%
2 Propositions:														
a. Sentences with verbs	13	26%	4	20%	2	18%	5	71%	1	9%	1	8%	25	53%
b. "Sentences" without verbs					--				--		1	8%	--	
c. Anaphoric negation	13	26%	5	25%	2	18%			--		4	31%	7	15%
3 Formulaic chunks	6	12%			1	9%	1	14%	2	18%	2	15%	1	2%
4 Anomalies							1	14%	5	45%	1	8%	1	2%
Subtotal	33	73%	9	45%	7	64%	7	100%	10	91%	11	85%	37	79%
5 Self-corrections	--				--				--				1	2%
6 Other-corrections	5	10%			3	27%			--				4	9%
7 Confirmations	12	24%	11	55%	1	9%			1	9%	2	15%	5	11%
Total	50	100%	20	100%	11	100%	7	100%	11	100%	13	100%	47	100%

Appendix F: Transcripts of Negative Utterances

Time	Speaker	Negative Utterance plus Context
Session One: June 24, 2002		
	Partner:	*(giving directions from worksheet)*
1:22:23	Jaime:	ah no no no ah no number four?
Session Two: July 25, 2002		
	Partner:	where is she
0:51:15	Jaime:	I don't know
	Partner:	where is he!
0:55:32	Jaime:	what_no. where where is_where is he?
	Partner:	*(asks question)*
0:57:18	Jaime:	I don't know
1:19:00	Jaime:	No mary. No singer
1:20:15	Jaime:	no. no good
1:24:00	Jaime:	Your computer only chinese - no Spanish?
	Partner:	(XXX)
1:24:00	Jaime:	Okay, no problem
	Teacher:	If you want to take a break
1:40:00	Jaime:	Nnnnnaaa (indicating he doesn't want to take a break)
Session Three: September 26, 2002		
	(Jaime has asked partner to show him "m";	
	she points to the wrong thing)	
1:12:50	Jaime:	No. Is here.
	Partner:	M -*(pointing to a letter on the worksheet)*
1:13:20	Jaime:	No - M
1:14:00	Jaime:	Show me book
	Partner:	*(points to wrong thing.)*

	Jaime:	No __ Book *(points to worksheet)*
	Partner:	what is this?
1:15:30	Jaime:	I don't know.
	Jaime:	show me quarter
	Partner:	*(points to something)*
1:16:40	Jaime:	No.
1:17:00	Jaime:	show me pen
	Partner:	*(points to something)*
	Jaime:	No.
	Jaime:	show me the raining
	Partner:	*(points to something)*
1:17:40	Jaime:	No. Show me the raining
1:18:03	Jaime:	show me the ring
	Partner:	*(points to something)*
1:18:13	Jaime:	No. Ring (points to the ring).
1:18:20	Jaime:	Show me the sun.
	Partner:	*(points to something)*
1:18:30	Jaime:	No. *(points to something)* sun
	Jaime:	show me the girl
	Partner:	*(points to the wrong thing)*
1:21:20	Jaime:	No girl.
1:22:00	Jaime:	I have a question - (points to worksheet)
	Teacher:	yes
	Jaime:	(points to worksheet)
	Teacher:	Ox
	Jaime:	Ox?
	Teacher:	very big
	Jaime:	no is the bull?
	Teacher:	hn hn - an ox is a cow
	Jaime:	the bull the
	Teacher:	but big and very strong

1:22:25	Jaime:	is no bull?
	Teacher:	no a bull is male - bull cow
	Jaime:	no no no! bull!
	Teacher:	bull yeah - bull male --- cow female
	Jaime:	Aaahh
	Jaime:	I don't_I don't understand
	Teacher:	masculine --- feminine
	Jaime:	Oh uh ha
		(Jaime's partner had him write a lot of letters; when it's time for him to circle them she tries to look at his paper)
2:23:25	Jaime:	no no no you remember too much *(laughs)*
	Partner:	*(tries to look at Jaime's paper)*
	Jaime:	you remember no no no no no
	Jaime:	too much write write - you remember
2:24:40	Partner:	No D - No D
	Jaime:	No B - you say_ you say B, no?
	Partner:	no
	Jaime:	no?
	Partner:	C C
2:27:50	Jaime:	no - no (shakes his finger)
		(asking the teacher how to pronounce a letter)
2:29:35	Jaime:	no, she say vee

Session Four: October 17, 2002

0:33:07	Jaime:	no problem *(repetition of teacher utterance)*
0:33:29	Jaime:	Sure. No problem
	Partner:	May I borrow a pencil?
0:33:36	Jaime:	pencil? O I'm sorry. No_no pencil.
	Partner:	thanks
0:34:10	Jaime:	no problem
	Partner:	May I borrow ten dollar?

0:34:28	Jaime:	I'm sor_ I_ I'm sorry. No have an_ no
	Partner:	I don't have it.
	Jaime:	I don't - I don't have any..
2:06:54	Partner:	read
	Jaime:	me eat uh
	Partner:	read - you eat in restaurant on Sunday
2:06:59	Jaime:	ah no.
	Partner:	read
2:07:01	Jaime:	no no no no. no Sunday
2:07:05	Jaime:	yesterday eat in restaurant. (2) yesterday. (1) no_I no I no cooking in my house
	Partner:	yeah
	Jaime:	no cooking
	Partner:	yeah. You live ah with uh your parent. You live with your parent. Parent. Parent uh father and mother
2:07:37	Jaime:	I don't know. Ahh
	Partner:	live with uh your father and mother. Live
2:07:55	Jaime:	no I- I don't un-understand
	Partner:	*(writes question)*
2:08:07	Jaime:	you yeah live yeah with oh ye_ no. no.
	Partner:	no.
2:08:19	Jaime:	no no no no no. you you living with your fathers and mothers. Uh no I living I living friends
	Partner:	your friends.
2:08:33	Jaime:	no. my family is in Mexico. Never family here.
	Partner:	oh.
2:08:37	Jaime:	nothing family. Only me
	Partner:	you eat outside. Eat outside
2:08:44	Jaime:	yeah outside
	Jaime:	no no in house
	Partner:	When do you clean you house?
2:19:21	Jaime:	Not much clean my house. Me never_me only for sleep. No no in house-for the sleep every_every_everyday and everytime me in the street. And I work. Only for the sleep

(discussing how Jaime eats out all the time - partner inquires about the cost)

	Jaime:	no problem
	Teacher:	When do you exercise?
	Jaime:	Me everyday bicycle. No need the *(demonstrates exercising)*
2:21:23	Jaime:	I don't_I don't_ I no the the exerc_
	Teacher:	ok.ok
	Teacher:	When do you cook? Cook?
2:21:32	Jaime:	Not me.
	Partner:	Everyday.
	Teacher:	Everyday?
	Teacher:	No?
2:21:34	Jaime:	no_ no cook in the house
	Jaime:	In my apartment. Never.
	teacher:	Never?
2:21:36	Jaime:	Never.
	Teacher:	Never cook? And when do you eat?
	Jaime:	in the restaurant
2:21:40	Jaime:	in the restaurants maybe friends but never in home
	Teacher:	Never?
2:21:44	Jaime:	Never.
	Jaime:	my apartment only for esleep
2:22:27	Jaime:	only for sleeping yeah. Me never there XXX in the mornings wash. Shower

(discussing shopping - first Jaime indicates he will go to Clackamas then)

2:23:22	Jaime:	yeah for the sh.. No it's maybe in the xxx eighty-eighty two for the shopping
	Jaime:	You no like dancing?
	Partner:	I can't
	Jaime:	I can't
1:09:50	Jaime:	she no question for me
1:12:13	Jaime:	That's not "yay"! Wow
2:37:00	Partner:	*(inquiring about where he works -*

she writes down the wrong address)

Jaime: no
Partner: *(she corrects it)*
Jaime: yeah

2:38:00 Jaime: You Thursday school?
Partner: No
2:38:17 Jaime: No

Jaime: You work Tuesday?
Partner: no
2:38:22 Jaime: No

Jaime: You shopping?
Partner: maybe
Jaime: you working?
Partner: no
2:38:30 Jaime: No working. Never.
Partner: I don' (XXX) no job.
2:38:40 Jaime: No. Why?
Partner: I come here two morning..two morning.

2:38:56 Jaime: No. You no working?
2:39:00 Jaime: You no working?
Partner: no
Jaime: Never? Why?
NEW PARTNER
Jaime: You coming to school Thursday?
Partner: no
2:39:39 Jaime: no…no

2:40:06 Jaime: You… Do you go to work Thursday?
Partner: No
Jaime: No. No work. No work. No work. No work.
What happened? You much money?

2:40:30 Jaime: No school. No work. Yes shopping.
2:40:45 Partner: Do you go school Thursday?
Jaime: No

NEW PARTNER

	Jaime:	Do you go to school Thursday?
	Partner:	no
2:41:26	Jaime:	No
	Jaime:	Do you go to work Thursday?
	Partner:	No. Stay home.
	Jaime:	No work. No work. No work. (he points to his three interlocutors) Just shopping.
	Partner:	No stay home.
	Jaime:	You no working?
	Partner:	No
	Jaime:	Nothing?
	Partner:	No
	Jaime:	Never?
	Jaime:	No work. No work. No work. *(he points to his three interlocutors)*
	Partner:	(XXX)
	Jaime:	No. It's no good.
2:42:00	Jaime:	No. Four works. Morning bike shop; afternoon cook
2:43:23	Jaime:	Hey Teacher. No working. No working. No working. Just shopping.
	Jaime:	No working. No working. No working. Just shopping.

Session Five: November 14, 2002

	Teacher:	What time do you exercise?
0:40:58	Jaime:	No
	Teacher:	No, okay, I don't
	Student:	What time you exercise in the morning?
0:41:45	Jaime:	No
	Student:	No?
	Jaime:	No
	Student:	Jaime never exercise?
	Jaime:	Never no

	Student:	Never?
	Jaime:	Never.
	Student:	Jaime you no exercise in the mornings
0:46:46	Jaime:	No, real tired
		No, everyday in the bicycle.
	Student:	- exercise -
	Jaime:	No - I going to school in the morning
		(mimics riding bicycle)
	Student:	Bicycle or walking.
0:47:36	Jaime:	No. Bicycle. No walk.
	Student:	What time do you kiss your family?
	Jaime:	No
	Student:	No?
0:48:00	Jaime:	I don't know; no no here in Portland
		No in Portland
		I no have family in Portland
1:12:01	Jaime:	yeah what do you want no what do you like for lunch
	Partner:	hamburger hamburger ok
1:14:09	Jaime:	no no no hamburger
	Partner:	dinner
1:14:22	Jaime:	no
	Partner:	you like dinner
1:14:25	Jaime:	no ((points to notebook))
1:15:22	Jaime:	water
1:15:27	Jaime:	no
1:17:04	Jaime:	but maybe - I don't know - pizza
1:17:23	Jaime:	me dinner?
	Partner:	at home
1:17:25	Jaime:	at home no
	Partner:	in apartment
1:17:27	Jaime:	no_ no cooking in home me

	Partner:	no?
1:17:29	Jaime:	no never _ I_ I have problems from my friends in in the house (+) a la la la la ok (+) no thank you
	Partner:	oh
1:17:36	Jaime:	no thank you me no cooking it's ok

Session Six: January 21, 2003

	Partner:	In you country climb tree?
0:39:40	Jaime:	No
	Partner:	Do you have a quarter?
0:53:00	Jaime:	No
0:53:08	Partner:	Do you have a comb?
	Jaime:	No No I don't.
	Jaime:	Do you have kleenex?
	Partner:	I don't no I don't
0:54:37	Jaime:	no I don't
	Jaime:	a comb, no I don't
0:55:31	Jaime:	no no you checking different people *(points to the student's paper)* everyone's peoples - that's no good *(signals with hand that student should move around the room)*
0:57:00	Jaime:	Do you have a piece of gum?
	Partner:	no
	Jaime:	no
0:57:39	Jaime:	Do you have calendary?
	Partner:	No I don't
0:57:49	Jaime:	No I don't
	Partner:	do you have (xxx)
0:58:20	Jaime:	yes, I don't *(rechecked the tape and he uses 'yes, I do',*

on other occasions)

0:58:40	Jaime:	no three Jaimes in the classroom

Session Seven: February 18, 2003

0:23:31	Jaime:	only one two three beers. No more
	Partner:	ok
	Jaime:	no_ no_ not much. Maybe one two three no more
	Partner:	drank yeah. He drank? Wow! Medicine.
0:46:52	Jaime:	no soda
	Partner:	he drang. He drang soda yesterday
0:47:37	Jaime:	no xxxx
	Partner:	medicine
0:47:39	Jaime:	no! xxx ((laughs))

Session Eight: March 4, 2003

0:57:20	Jaime:	She can ride skateboard?
	Partner:	No, I can't.
	Jaime:	No?
	Teacher:	Can you eat with chopsticks?
	Jaime:	No
	Teacher:	No, I can't…okay
0:58:59	Jaime:	can you play golf
	Partner:	yes…no
	Jaime:	Yes or no?
0:59:27	Partner:	Can you eat with chopsticks?
	Jaime:	No
	Partner:	Can you stand on you head?
1:01:56	Jaime:	I don't know. I don't understand that one.
	Jaime:	Can you ride a horse?
	Partner:	No
	Jaime:	No?

	Partner:	Can you (xxx)
	Jaime:	No, I can't. *((laughs))* No, I can't.
	Jaime:	I don't know. I forget
1:02:59	Partner:	Can you stand on his head?
	Jaime:	I don't know.
	Partner:	Can you stand on his head? …your head? Can you stand on your head?
	Jaime:	no *((laughs))*
	Partner:	What's you name?
	Jaime:	Jaime. *((begins to spell))* Yay *(for Jay)*
	Partner:	*(writes)*
1:03:30	Jaime:	No yay!
	Partner:	*(through code switching - establish the question is can you say a tongue twister?)* Can you do it?
	Jaime:	No.
1:06:13	Partner:	Can you stand on your head?
	Jaime:	No.
	Partner:	No *((laughs)).*
	Jaime:	No, I can't *((laughs))*
1:06:35	Jaime:	Can you say a tonguer twister?
	Partner:	No, I can't.
	Jaime:	No *((laughs))*
	Partner:	Do you know the teacher's last name.
	Jaime:	No, I forget
1:06:54	Jaime:	I don't know.
	Partner:	Can you name the last three presidents of the oosah [USA]?
	Jaime:	No.
	Partner:	(xxx)
	Jaime:	Bush Reagan Lincoln

	Jaime:	Can you?
	Partner:	no.
	Jaime:	no?
	Partner:	you?
	Jaime:	No
1:11:50	Partner:	Can't play golf?
	Jaime:	Can't yeah. No.
	Partner:	Can ride horse?
	Jaime:	No. No. No horse.
1:12:13	Partner:	Can play instrument? Guitar XXX?
	Jaime:	No. Nothing.
	Partner:	Can you lasagna?
1:12:33	Jaime:	Lasagna? Oh, no I can't.
	Partner:	Can you XXX?
1:13:45	Jaime:	mmhmm. Never in my life.
0:36:08	Partner:	I can’t play the guitar
0:36:12	Jaime:	I can't
0:36:26	Partner:	I can't
0:36:27	Jaime:	No? (laughs)
0:36:28	Partner:	I can't
	Jaime:	I can't
0:36:30	Partner:	I can't (2) uh I_ I can't speatsa Chinese
0:37:00	Jaime:	Me neither.
0:37:40	Partner:	I can speak Vietnamese
	Jaime:	I can _me too
	Partner:	You?
0:38:00	Jaime:	Oh no no! (laughs) me neither, me neither
0:38:08	Partner:	I can! I can!
	Jaime:	oh you can.
	Partner:	I can

	Jaime:	oh
	Partner:	You?
0:38:14	Jaime:	no me neither
	Partner:	I can't!
0:38:15	Jaime:	I can

(Jaime is trying to communicate that he can fix cars and partner can't understand "fix")

	Partner:	Car? (2) speak?
0:39:39	Jaime:	No no no I can fix cars
	Partner:	fish fish
	Jaime:	no no no I can fix
		fish
	Jaime:	no no no fix

(work on the word fix - finally Jaime writes it)

0:40:19	Jaime:	I can fix cars
	Partner:	no
0:40:20	Jaime:	no? *(laughs)* no _ no, what?
	Partner:	I only - ah -
0:40:29	Jaime:	no no no no you say (*he points to the board*)
	Partner:	I can't.
	Partner:	I can't.
0:41:00	Jaime:	I can't?
	Partner:	I can't.
0:47:05	Jaime:	Four? When you're sick. No_no I can't buuee _ and dancing.
0:48:01	Jaime:	Can you play chess? Yes I can
	Partner:	*((looks confused))*
0:48:13	Jaime	No?
		xxx! *((points at book))*
0:48:15	Jaime	No?
	Partner	No!
0:48:20	Jaime	No I can't. (7) Checkers.
	Partner	canxxx
0:49:06	Jaime	no_ no I can't do it buee uh
	Partner:	No you can't.

0:49:07	Jaime:	No he can't.
	Partner:	can you xxx
0:49:22	Jaime:	No I can't. No I can't sleep (+) play the baseball. Baseball?
0:50:01	Jaime:	No? with the skis? Skis? Sk_ in the skis?
	Partner:	No! *((points to the book))*
	Jaime:	Oh I don't know.

Session Nine: April 4, 2003

0:57:10	Jaime:	Do you like to_too king? *(maybe talking)*
	Partner:	no
	Jaime:	no *(says and writes her name on worksheet)*
	Partner:	And you?
0:57:25	Jaime:	no
	Jaime:	Do you like to read?
	Partner:	No
0:59:00	Jaime:	No
	Partner:	Carlos do you have car?
	Jaime:	Excuse me; what did you say?
	Partner:	Do you have
0:59:59	Jaime:	That's not my name.
	Partner:	Oh, Jaime do you have car?
1:00:02	Jaime:	No
1:01:31	Jaime:	Do you have the car?
	Partner:	No, I don't.
1:01:34	Jaime:	No.
1:01:49	Jaime:	No_No_ I doesn't? *(looks to the board)*
1:01:51	Partner:	No, he does not.
	Jaime:	Yes thank you.
	Partner:	You have car?
1:02:11	Jaime:	No_No, I don't have.
	Jaime:	Do you have house?

	Partner:	No.
1:02:25	Jaime:	No. *(says and writes name)*
	Jaime:	Do you have bicycle?
	Partner:	No
1:03:00	Jaime:	No
	Partner:	Do you drink tea?
1:04:22	Jaime:	No *(shakes his head)*
	Jaime:	Do you have the car?
	Partner:	No
1:05:25	Jaime:	No_no
	Partner:	Do you like tea?
1:06:30	Jaime:	No, never in my life.
	Partner:	Do you like to swim?
1:06:38	Jaime:	No
	Partner:	No?
	Jaime:	No
	Partner:	You name?
	Jaime:	Do you (XXX)
	Partner:	No
1:07:55	Jaime:	No
	Partner:	No, I don't
	Jaime:	Do you know the emergency telephone number?
	Partner:	No
1:13:28	Jaime:	No
	Jaime:	Do you know the population?
	Partner:	No, I don't.
1:14:15	Jaime:	No

(reading about partner's likes and dislikes-points to paper)

2:13:52 Jaime: I don't understand that one.

(keeps reading and then)

2:14:13	Jaime:	You no like noise-noises - noises.
	partner:	*(shakes her head)*
	Jaime:	Very quiet for sleep.

Session Ten: April 25, 2003

	Partner:	What do you never do?
1:00:46	Jaime:	I never (1) never_ never (+)
		I don't know
	Partner:	You never speak Arabic?
	Jaime:	yes
	Partner:	yes? Uhuh *((laughs))*
1:01:04	Jaime:	never speak Arabic I never (1) hm
1:02:36	Jaime:	What do you never do?
1:05:05	Jaime:	You drinking?
	Partner:	*((shakes head))*
	Jaime:	no
	Partner:	no eat no
1:07:47	Jaime:	no nothing
1:07:53	Jaime	no no no the park
	Partner:	the bar
	Partner2:	park!
	Jaime:	no no no park - and the trees and the
	Partner2:	park!
	Partner:	oh the park
1:08:02	Jaime:	not the bar *((laughs))*
1:09:18	Jaime:	n_ n_ n_ no
	Partner:	I think three times a year
1:27:30	Jaime:	Three times? No
	(how many times does an American move?)	
	Partner:	three?
	Jaime:	no

Session Eleven: May 13, 2003

0:29:46 Jaime: How are you?
Partner: Good.

0:29:50 Jaime: You're not coming last Wednesday?
Partner: Yes, I was.
Jaime: You go for the driver's license?

0:30:07 Jaime: You have driver's license now?
Partner: No, I have yeah a permit
(discuss and look at partner's permit)
Partner: I think you have
Jaime: I no have
Partner: why
0:30:37 Jaime: I don't have car
Partner: what?
Jaime: I don't have car

2:48:30 Jaime: So.
Partner: So.
Jaime: So?
Partner: For you
Jaime: For you?
Partner: Which children do you understand better?
2:48:43 Jaime: I don't know

2:49:16 Partner: We're talking about the father?
Jaime: What do you think about the father?
Jaime: I think he like working. Working.
Partner: No. No he's no working.
Jaime: No working?
Partner: Now he's working, but before when a tired

2:52:30 Jaime: Today not today?

Session Twelve: July 1, 2003
(discussing favorite holiday)
Jaime: Christmas (+) not uh Mexico no turkey day (+) Christmas

Jaime: I don't know what is the_ the question (+) you (+)

you go in the Russian's restaurants here?

Partner: uh no. (+) I_ I go in Chinese restaurant
Jaime: uh no Roosian restaurant

1:01:00 Partner: When are the holidays in your country?
Jaime: *(pointing at calendar)* New year's
(goes through months - only negatives noted)
Jaime: February nothing
Jaime: March nothing…oh, my birthday ((*laughs*))
Jaime: July nothing
Jaime: August nothing
Jaime: October nothing

1:04:38 Partner: uhuh September xxx *((writes))* who
Jaime: who (1) I don't know

1:07:37 Partner: who (+) *vy (+) who
Jaime: *((shrugs))* why *((shrugs))* I don't know XXX

1:10:39 Partner: you (+) talk (+) revolution (1) yeah
Jaime: no? (+) yeah. Revolution
Partner: uh my country revolution

Session Thirteen: July 22, 2003

(discussing when the constitution was written)
1:05:28 Jaime: I no sure

(discussing corporal punishment in Mexico)
1:06:34 Jaime: My father say_ no, no me.
When I went to school no problem
Teacher: Your father said ahhh (*demonstrates pulling by ear*)
Jaime: no. never. Never my father.
Teacher: no?
Jaime: never

Teacher: Your father didn't like it when they did that?
1:06:50 Jaime: No no

1:11:34	Partner:	I ask you?
1:11:35	Jaime:	No no. Tell me more your constitution.
1:11:55	Partner:	I_I don't know.
	Jaime:	no? Nothing?
1:12:15	Partner:	I don't like politics
	Jaime:	no?
1:19:48	Teacher:	A lot of people are ready for level C here
	Jaime:	Not me. Maybe one more time in
	Teacher:	How many times have you been in B?
	Jaime:	I don't know
	Jaime:	Are you sure? I'm not sure.

Session Fourteen: October 17, 2003

		more boring more work and I call my family (+)
0:29:03	Jaime:	hm.
		not_ not much
	Partner:	uh (+) are they in Mexico fat
0:29:17	Jaime:	today in Mexico fat? (+) I don't know
		(trying to recall his partner's activities)
0:30:29	Jaime:	Ay! I don't know uh she gave the daughter you no making food? you no cooking food
0:30:56	Jaime:	no never never never never cook the_ never cook in home *((points to self))* uh yesterday I went the buffet in the Indian restaurant
	Partner:	in downtown?
0:31:35	Jaime:	no no no no yeah downtown Northwest
	Jaime:	Russian?
	Partner:	no
	Jaime:	No?
	Partner:	no

0:33:23 Jaime: no no no _no more people, little *((with fingers indicates few))*
people from Russian (+) Russian no_ no peoples
Partner: uh
Jaime: no_ no neighbors

Partner: did you talk yesterday
0:51:45 Jaime: no, I didn't

Partner: did you watch TV?
0:51:48 Jaime: no, I didn't

Partner: Did you (xxx) yesterday?
0:53:25 Jaime: No
Friend: No what?
0:53:29 Jaime: No I didn't
(friend corrects pronunciation)
0:53:07 Jaime: No I didn't
(friend corrects pronunciation of didn't)
0:53:45 Jaime: No, I didn't
No, I didn't

Partner: Did you drink coffee yesterday?
0:54:25 Jaime: No, I did (*looks at the board*) no I didn't.
0:54:46 Jaime: *((corrects spelling))* no S no S

0:55:41 Jaime: No. It's not me. It's not me. It's not me.
I sit behind you. Come on *((laughs))*

0:56:39 Jaime: Can you…no…wait…wait…did you ride the bus?

Partner: Did you ride the bus yesterday?
0:57:41 Jaime: No. No.

Jaime: No No J-A-I

0:57:52 Jaime: (xxx) no no did you go to the market?

0:58:38 Partner: Finished it?

	Jaime:	No…did you go to the market?
0:59:00	Jaime:	Where is…you remember your friend from last time?
	Partner:	(xxx)
	Jaime:	No no the woman from China…no no Vietnam..Vietnam
	Jaime:	No one woman your friend
	Partner:	Kim
	Jaime:	Where is Kim? No more.
		You no have fun with Kim
		What happened you fight?
1:00:31	Teacher:	Did you watch TV yesterday
	Jaime:	No, I did
	Teacher:	Did you drink coffee yesterday?
	Jaime:	No, I did
	Teacher:	didn't
	Jaime:	No, I didn't
	Teacher:	Did you exercise yesterday?
	Jaime:	Yes, I did.
1:02:58	Jaime:	Did you watch TV?
	Partner:	no
	Jaime:	no?
	Partner:	no Monday I did not watch…..
	Jaime:	no watch TV; okay, your name?
	Jaime:	Did you wake early?
	Partner:	yes
	Jaime:	What time?
	Partner:	7 o'clock
1:04:33	Jaime:	7 o'clock - that's not early
1:05:23	Partner:	Did you ride the bus yesterday?
	Jaime:	No, I didn't.
	Partner:	no ride the bus
	Jaime:	no
	Partner:	Do you have a pass
	Jaime:	No I don't have

1:28:47	Jaime:	hmmm
	Partner:	XXX
	Jaime:	Nothing?
	Partner:	XXX
	Jaime:	Yeeeesssss?
2:32:46	Partner:	when uh March tenth?
	Jaime:	no March nineteen
2:34:59	Partner:	(*indicates she wants class to be over*) Finish, finish
	Jaime:	maybe next XXX maybe no XXX no se
		May I go for writing and reading _ May I'm not sure.
2:39:00	Jaime:	I don't care.
	Jaime:	I don't care.
	Jaime:	You have something for me?
	Partner:	*(asks a question - XXX)*
	Jaime:	No… Jaime *(giving name for worksheet)*