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DISTURBING THE NATURAL ORDER: ADJUSTING THE CLASSROOM TO FACILITATE LEARNER ACQUISITION

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UNIVERSIDAD DE PIURA
FACULTAD DE CIENCIAS DE LA EDUCACIÓN
MAESTRÍA EN EDUCACIÓN



**Disturbing the natural order: Adjusting the classroom to
facilitate learner acquisition**

**Tesis para optar el Grado de Magíster en Educación con mención en
Enseñanza de Inglés como Lengua Extranjera**

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Piura, octubre 2018

Approval

The thesis entitled, “**Disturbing the natural order: Adjusting the classroom to facilitate learner acquisition**”, presented by **Ian Michael Lealand**, in accordance with the requirements of being awarded the degree of Master in Education with a mention in Teaching English as a Second/Foreign Language, was approved by the thesis director: **Dr. Majid Safadaran Mosazadeh**, and defended on before a Jury with a following member:

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Analytical informative summary

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Description: Thesis to obtain the degree of Master in Education with mention in Teaching English as a Foreign Language.

Content: Comprised of four chapters, chapter 1 justifies the investigation, formulating the problems while stating the general and specific hypotheses. Chapter 2 investigates the nativist theories of language learning and Universal Grammar first purported by Chomsky and later supported by Brown while also closely examining Krashen's hypotheses of second language learning. Chapter 3 establishes the methods of language production evaluated throughout the study ensuring a balance between activities in both speaking and writing. Finally, chapter 4 evaluates the results in an effort to support or refute the thesis.

Methodology: Practical research, quantitative analysis.

Conclusions: The findings of this study support the idea that the accuracy of morpheme use is dependent upon the method of language production, conscious error correction based on order of acquisition facilitates rate of acquisition, and finally language acquisition can be achieved in a formal classroom environment

Sources: Action research in class to analyse morpheme accuracy in both spoken and written production, using notebooks, quizzes, exams, discussions and role plays to gain a wide variety of language input, as well as books, articles, online web pages and journals to analyse the theoretical core of the research.

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Introduction

As a logical and organised person, early ideals of teaching led to the simple and obvious belief that a perfect teaching style and a perfect class plan must exist. All that was needed was to study thoroughly and discover the formula that would lead to perfect students quickly and simply understanding the content next in line to be taught. Of course, that dream swiftly diminished and rapidly transformed into the understanding that a great deal of skill and patience were needed to control a classroom and truly get the best from every student. However, while reading about the theories of second language acquisition, it became apparent that a legitimate and sequential path to learning might indeed exist. In this way, the motivation to research the topic and write this thesis was born.

In chapter 1, the problem to be investigated regarding the order second language acquisition is defined in greater detail, by laying out the hypothesis in general and specific terms, while also acknowledging the limitations that may restrict the investigation process.

Chapter 2 considers the previous theories and research in this field based on the Nativist concept of language acquisition including the theory of Universal Grammar proposed by Chomsky in the last 1950's and subsequently the investigations that took place in the 1970's and beyond originally instigated by Roger Brown. The original investigations based on Chomsky's Universal Grammar theory, known as The Morpheme Studies sought to establish a general order in morpheme acquisition in both L1 and L2 and mostly evaluated language production through speaking. Further investigation of Nativist or Cognitivist theories revealed that Stephen Krashen had in 1982 defined five theories of SLA, the majority of which also contributed in large part to focussing the route of this investigation and clearly defining the steps necessary to ensure valid and worthwhile results.

In chapter 3, we delve into the process and execution of the research attempting to discover the differences in acquisition order between reading and writing as defined in the specific hypotheses of the thesis. To begin with, the idea for this investigation had been to simply replicate the research conducted by Brown, Dulay & Burt, Rosansky (et al), testing the hypothesis for validity while also identifying if the order was in some way affected when the production form changed to writing, or more simply if the time for reflection on correct language use was increased. However, as the process developed, it became clear

that far more could be achieved in the classroom environment by manipulating the results through conscious error correction dependent upon the production form. While the entire research process was divided into two clear stages, the conclusion of the investigation clearly indicated the need for a further study to define how best to facilitate the rate of acquisition.

In stage 1, the study sample was evaluated according to Krashen's Monitor and Affective Filter hypotheses to assure that those who were evaluated according to the original objective (language acquisition order) produced language at a pace and rhythm relevant to their abilities thereby securing the credibility and validity of the final results.

With the study sample refined and selected, Stage 2 was in actual fact the original intention for the research and was designed to evaluate the difference in accuracy of the selected morphemes according to the production form. By utilising a variety of activities from spontaneous conversation through to planned and revised writing compositions, it was possible to compare the production forms and contrast them in a manner that demonstrated that the classroom environment can positively contribute not only to successful acquisition, but to an accelerated rate of acquisition.

Chapter 4 explores the results of the research analysing each of the activities in detail before combining them into the two main categories of spoken and written production to establish an overall result allowing for a relevant and valid conclusion that facilitates a critical evaluation of the thesis. As an additional step to the entire process, a further investigation was in fact conducted some months later on the recommendations of the thesis tutor. To this end, it was felt that greater validation of the results could be achieved through not only increasing the sample of the study but also of course, a subsequent investigation process could further support the proposed hypotheses, which in fact it did. The additional research was conducted with a different sample of students, in a different age group and in fact with different language content. The results of this additional investigation clearly support the fact that the natural order can be influenced positively by following the established steps as an action research project in any teaching environment.

Finally, further recommendations are made in the final chapter as a culmination of the logical consequence of the concluding analysis as well as a personal reflection of the comprehensive nature of the thesis. In this case, it was felt that further studies should be

made into the effects of error correction techniques with regards to spoken and written production to ascertain if greater control can be exerted over the development of specific morphemes on the learning environment.

Chapter 1

Investigation Outline

1.1. Formulation of the Problem

The path of successful language learning or “natural order of acquisition” (with regard to grammatical structures or morphemes) in either a first or subsequent language has been established by many different researchers since the early 1970’s across a variety of participants. The published results while not definitive do show some similarities, however very little distinction has been made in these studies between production through speaking and production through writing. Therefore, it is the fundamental objective of this research to exhibit the variations in successful acquisition between spoken and written production in a second language (in this case, English) through a variety of spontaneous and planned activities, to establish how the natural order of acquisition is disturbed when the forms of language production are different. However, simply establishing a variation in the different forms of production does not support the classroom teacher in facilitating acquisition in his or her students, and therefore this research will further highlight that conscious focus on specific language aspects or morphemes will support second language teachers to better understand learner errors and find a path that supports learning aimed more at those morphemes which would appear to be the next in line to be acquired successfully.

Even though the role of SLA in a formal classroom environment is probably the image that most people visualise when they think of learning a new language, prominent linguists have long questioned the effectiveness of form-focussed teaching. Krashen among others for example, made a clear definition between acquisition as a natural process of “feeling for correctness” and “formal knowledge of rules” as learning. Additionally, Krashen goes on to further detract from the benefits of a formal classroom-learning environment in his Acquisition-Learning Hypothesis¹ by also stating, “Error correction has little or no effect on subconscious acquisition, but is thought to be useful for conscious learning.” (Krashen, 2004:11)

¹ Krashen defined five hypotheses relevant to language learning. The Acquisition-Learning hypothesis characterised the distinction between conscious learning in a formal environment and a natural process of acquisition through language use outside the classroom.

While this formal style of teaching and learning is prevalent in language institutes around the country, as students are prepared for international exams such as the FCE (First Certificate in English) through the University of Cambridge, it is important to note that in working in a private school, the classes which I teach are centred more towards a communicative environment. Students learn to converse, negotiate or persuade alongside formulating strategies for formal presentations while developing longer written compositions with a purpose to entertain, inform or persuade according to audience or level of formality for example.

The aim of this research project therefore, is to discover a difference in the order of acquisition of these specific language structures or morphemes when speaking or writing a second language, and how this natural order of acquisition is different between the two forms of production. As writing is usually a far more planned exercise than speaking, a general increase in accuracy is expected, however the ultimate goal is to determine if the order or ranking of successful assimilation is affected and whether error correction focus should be adjusted based on the differences in the order.

In order to establish the disturbance of the natural order, the research was split into two distinct phases. Phase 1, entitled “Establishing the Monitor” is a primary control phase designed to ensure that the sample of learners utilised in the research have a balanced approach to accurate production rather than an excessively or insufficiently controlled approach. That is to say, those who are too self-conscious to speak without first being entirely sure that the utterance will be perfect, or those who are simply happy to communicate without any kind of evaluation of correctness were removed from the sample to maintain the integrity of the remaining results used in Phase 2. Having ascertained a balanced sample for the research, Phase 2, entitled “Establishing the Differences” assesses the variations in accuracy and ranking order of morphemes in speaking and writing.

Ultimately, the problem that this research intends to tackle can be summarised as “How can selective correction of specific language morphemes based on accuracy aid language acquisition in speaking and writing?” To do so, the language tasks applied to the study group were used as independent variables and ensured that the material gave a wide variety of tasks between speaking and writing as well as spontaneous and planned activities. In doing so, a balance was struck to ensure that a difference between the two methods of production was well represented. Additionally, the evaluated language was an

independent variable based upon the original list of morphemes identified by Brown in his original studies in the early 70's.

Dependent upon these, were the results of Krashen's monitor hypothesis which sought to remove those students from the study who had a lack of confidence in their language abilities, and so did not or would not attempt some more challenging grammatical forms, as well as those students who were perhaps over confident in their abilities and so used their language with minimal self-evaluation or error correction.

In Phase 2, an element of control was introduced, with an experimental group receiving error correction feedback based on those morphemes which had been deemed as 'almost' acquired, and the control group attempting to correct their work based on no more than knowing a mistake had been made, but with no guidance on how or where to look for a solution to the issues, and with no concentrated focus upon the 'almost' acquired morphemes.

1.2. Hypothesis

1.2.1. General Hypothesis

Selective correction of errors based on acquisition order of morphemes aids acquisition in both speaking and writing.

1.2.2. Specific Hypotheses

Acquisition order of morphemes differs dependent upon language production type. I.e. spoken or written.

Conscious error correction based on order of acquisition in spoken or written production further supports overall production.

Language acquisition can be achieved in a formal classroom environment.

1.3. Delimitation of the Objectives

1.3.1. General Objective

To analyse the effect of targeted error correction on the level of acquisition accuracy in spoken and written production.

1.3.2. Specific Objectives

1. To demonstrate the difference in acquisition order of language morphemes between spoken and written production.
2. To analyse the effect of error correction based on acquisition accuracy and its effect on overall acquisition.
3. To prove that language acquisition can be achieved in a formal classroom environment.

1.4. Justification of the Investigation

It is a widely held view by many linguists that speech is a more fundamentally important aspect of language than writing. Speech was developed as the primary means of communication long before writing, and of course we learn to speak much earlier in life than we learn to put pen to paper in any kind of meaningful way. While writing affords us the opportunity to show our thoughts and feelings through style, tone or register for example, communication through speech allows for a far greater depth of meaning by means of a wider variety of sociolinguistic tools.

According to Hymes,

...one cannot take linguistic form, a given code, or even speech itself, as a limiting frame of reference. One must take as a context a community, or network of persons, investigating its communicative activities as a whole, so that any use of channel and code takes its place as part of the resources upon which the members draw. (Hymes, 1974:4)

In the publication, “Foundations in Sociolinguistics: An Ethnographic Approach”, Hymes developed the mnemonic speech analysis model, “SPEAKING”² in an effort to analyse discourse into a series of acts, and while many of these acts, such as ‘Setting and scene’, ‘Participants’ and ‘Ends’ are also relevant in the act of written production, it is the category of ‘Instrumentalities’ that set the act of speech apart. Hymes described ‘Instrumentalities’ as the forms and styles of speech and it is here that we find such aspects as, ‘Pitch’, ‘Pace’, ‘Emphasis’ and ‘Intonation’, each of which is very difficult to replicate in written work without a long and convoluted explanation.

The result of this of course, is that all human beings (except for those with severe mental or physical challenges) are able to speak a first language, while not every person in a community or culture is able to learn the writing system of the same language. In a second language-learning situation, while learning to speak before, or without learning to write is possible, (for example, in cases of acculturation³ to a new language and culture), it is far more likely that the two will be developed simultaneously, especially in a classroom environment, where the learner will have already established many rules or patterns of the first language, as well as cognitive and metacognitive strategies to acquire the necessary knowledge, enabling them to cope far more easily with the additional production form.

As classroom teachers, we are constantly looking for the best way to help our students learn through the development of our own teaching practices. Each of us strives to create not just a classroom but also an engaging learning environment that facilitates the transfer of knowledge in the simplest, most exciting and stimulating way possible. Motivating and inspiring students must surely be at the top of every teacher's wish list and in a student-centred classroom where the student feels part of the leadership ethic; it is obvious that the rewards will be of a greatly intrinsic nature thereby self-perpetuating a circle of motivation and inspiration to learn. However, it is important to strike a balance here. In the Journal of Classroom Interaction publication, “Student-Centred and Teacher-Centred Classroom Management: A Case Study of Three Elementary Teachers”, Tracey Garrett (2008:35) affirms that “classroom management includes organization of the physical environment, the establishment of rules and routines, the development of effective

² The mnemonic SPEAKING was designed to clarify the necessary criteria for the act of successful conversation to occur, denoting the steps as: Setting and Scene, Participants, Ends, Act Sequence, Key, Instrumentalities, Norms and Genre. See appendix 4 for more information.

³ Acculturation is the process of adopting the cultural norms of another group. In the case of second language learning it could be considered as naturally acquiring a language while living or being immersed in the target culture.

relationships, and the prevention of and response to misbehavior”, ultimately suggesting that a fully student-centred environment is also not the best for our students. In fact, she goes on to state that we should view “classroom management beliefs and practices on a continuum from teacher-centered to student-centered.”⁴ In doing so, we are more likely to reap the rewards of nurturing the autonomous, self-disciplined student while also gaining their respect as coaches and facilitators of learning with the understanding that we have the knowledge and skills to guide the student in the right direction to help their learning in the best way possible.

It seems therefore, that the interests and personality of the teacher should also be an integral part of the learning environment, and as an analytical and logical thinker, the concept of a structured path to language learning (i.e. order of morpheme acquisition) has been part of my classroom management repertoire for some years now. Given that we choose words such as ‘coach’, ‘facilitator’ or ‘guide’ to describe ourselves as teachers of the 21st Century, should it not follow that any possibility to expedite the process of acquisition be seized with both hands and utilised in the best way possible?

Balancing on one hand Hymes theory of language in a social context and the structured view of a logical acquisition of language in small non-contextualised fragmented chunks on the other forms the basis for this research to prove that knowledge of a student’s language competence will lead to a focussed strategy of error correction supporting greater fluency in not only speaking but also in written compositions which equally have a social context and function to fill in their communicative purpose.

1.5. Limitations of the Investigation

The greatest limitation to this investigation was in fact the amount of time taken to collect the data. The collection of information happened over a six-week period in October and November 2016, the final six weeks of meaningful learning conducted for the school year before final exams brought the school year to a close.

Originally the research took place over a four-week period, however based on analysis of the original results it became clear that further research was needed in order to fully prove if acquisition in a formal classroom environment was possible. A further two

⁴ Garrett compares the style of three elementary teachers, analysing the success of a balanced classroom led by both student and teacher, suggesting a series of activities from teacher to student centred.

weeks of research were therefore conducted to test if morpheme accuracy could be improved in a test group with conscious focus specifically chosen aspects of the results. Although accuracy levels most certainly increased as a result of the focussed attention to specific morphemes, it was unclear if the error correction techniques applied were the most advantageous to the increase in accuracy. Taking this into account, the recommendations made at the end of this work strongly urge that further research be conducted to analyse which error correction techniques best aid acquisition in supporting the conclusions documented here.

Having said all of this, I feel it important to draw attention to a quote made by Brown, R. in his 1973 publication, 'A First Language: The Early Stages' to which this research project owes an inspirational debt. Early in the preface, Brown discusses the length of his investigation and rues the fact that he could not continue his research further, choosing instead to elect a closing date in order to meet a publication deadline. He states that, "The greater the research vitality of the field the greater the risk that your work will be, in some respects, 'out of date' by the time it appears in print." Of course, the scale of Brown's work was far greater than the work achieved here, although it is important to see the advantages of a shorter piece of work perhaps reacting more quickly to an observed opportunity for improvement, especially in a smaller teaching community that may be able to react more quickly to the findings on offer.

1.6. Antecedents of the Investigation

Since the original morpheme studies in the 1970's, while research and investigation into second language acquisition has continued, one fact has remained very clear: one definitive established order of morpheme acquisition does not exist. According to Pienemann (2015), studies keenly sought empirical data to systematise the concept and variations of interlanguage in an attempt to prove that it was not simply a straight translation of L1, nor of a random organisational pattern. Pienemann goes on to quote Long (1990), "Learners of different ages, with or without instruction, in foreign and second language settings, follow similar developmental sequences for such items as English negation (p.659)", noting that in fact, this is a statement of generalisation and not a law. However, it is also clear that a staggeringly wide variety of factors affect the rate and success of SLA as can be seen in the following examples of language acquisition studies.

1.6.1. Mat Daud, N.S., Mat Daud N., Abu Kassim, N.L. (2005). Second Language Writing Anxiety: Cause or Effect? (19 pages)

The results of this study showed that anxiety levels were higher in lower performing students (in this case, 186 third-year students following a Diploma in Accountancy) when writing texts in L2, giving rise to the conclusions that undeveloped skills were the cause for student apprehension, while suggesting that an increase in fluency and vocabulary would reduce nervousness and increase competence. Although anxiety levels were not considered as part of the study directly, extraneous results were not considered in the final outcome, by removing students who fell outside the norms considered by Krashen's Monitor Hypothesis. Additionally, the belief that writing could produce differing levels of accuracy and competence in the second language learner is the original focus of this research investigation.

1.6.2. Morgan Short, K., Faretta-Stuttenberg, M., Brill-Schuetz, K., Wong, P.C.M., (2013). Declarative and Procedural Memory as Individual Differences in Second Language Acquisition (17 pages)

In implicitly training fourteen learners between the ages of 18 and 30, it was discovered that declarative and procedural memory accounted for a large amount of variance in L2 grammatical development at both early and late stages' of learning. It can be clearly seen that the established route of learning a second language can be altered, and therefore a particular template or pattern for learning cannot be applied to any single situation in any single classroom. This is of particular interest to this research, as it is clearly apparent that a myriad of factors will affect the route and rate of acquisition in all learners of a second language, and therefore a need for each teacher to establish a snapshot of their own personal classroom situation is of the utmost importance.

1.6.3. Conclusion of Antecedents

While it is clear that acquisition order is subject to a plethora of variables, from motivation, to self-esteem, to cognitive abilities, it seems that it must be the responsibility of each teacher (in whichever setting they may find themselves) to establish needs for their students based on empirical evidence and not simply subjective feelings. In examining the previous two studies, the importance of each relates to the two main phases of this research project. First, in ensuring that those students lacking in confidence and those with an abundance of confidence in their second language skills do not affect the results in any kind of detrimental way, and second, that despite the claim of a single acquisition order of L2, this is in fact not the case, as each classroom and learner situation is unique

Ultimately therefore, this research project attempts to provide a framework for all ESL teachers to replicate in a fairly simple manner, with the goal of establishing an action plan of morpheme acquisition based on those which are ‘almost’ fully acquired so that they may pass the previously established 90% accuracy target of complete acquisition.

Chapter 2

Theoretical Framework

2.1. Introduction

Even though the theory of an innate knowledge of language is concerned primarily with first language, it has been proved that there are close similarities with the order that we acquire a second language. Pioneered by Noam Chomsky and fervently supported by Stephen Krashen, the innatist theory of language was seen as a direct attack on previous work by B.F. Skinner that language was learned through behaviourism and imitation of those around us. Chomsky had intended to critique this theory by asking one simple question; “If language is a product of imitation, how is it possible for language learners to produce sentences they have never heard before?”

2.2. Chomsky and the Nativist Theory

It should be made clear from the outset that Chomsky had never intended his publication "A Review of B. F. Skinner's Verbal Behavior" to outwardly criticise Skinner's work. In fact, it is very clear in the introduction that Chomsky is paying tribute to the discoveries and conclusions of Skinner's experiments with animal behaviour regarding the relationship between input and output, even going so far as to state that,

These characteristics of the organism are in general a complicated product of inborn structure, the genetically determined course of maturation, and past experience. Insofar as independent neurophysiological evidence is not available, it is obvious that inferences concerning the structure of the organism are based on observation of behavior and outside events. Nevertheless, one's estimate of the relative importance of external factors and internal structure in the determination of behavior will have an important effect on the direction of research on

linguistic (or any other) behavior, and on the kinds of analogies from animal behavior studies that will be considered relevant or suggestive.

Putting it differently, anyone who sets himself the problem of analyzing the causation of behavior will (in the absence of independent neurophysiological evidence) concern himself with the only data available, namely the record of inputs to the organism and the organism's present response, and will try to describe the function specifying the response in terms of the history of inputs. This is nothing more than the definition of his problem. (Chomsky, 1959: Section I)

Having acknowledged that Skinner has clearly stated the problem, Chomsky goes on to clarify that it is the lack of any kind of explanation for linguistic behaviour that becomes the focus of his critique calling for detailed analysis of the experiments rather than simply attributing basic assumptions to such a complex topic. As an example of this, Chomsky gives an example of saying the word 'red' in response to looking at a red chair. Skinner would therefore claim the utterance had been a response under the control of the stimulus property of the physical object. However, Chomsky proposes that any number of responses could have been uttered, ranging from those connected with other properties of the chair to those which stimulate other memories, ideas or concepts through memories or ideas connected with the chair or any of its properties. At this point, Chomsky believes that the stimulus is no longer part of the outside world, but "driven back into the organism." Therefore, the countless number of available responses clearly proves that linguistic behaviour is a cognitive process that goes far beyond a simple stimulus and response operation. Chomsky does however concede that certain responses, for example phrases or idioms, could be a conditioned response to a particular type of situation, although he clearly states that there is no comparison here to a food-seeking rat, as "the controlling stimulus need not even impinge on the responding organism."

In clearly defining the short fallings of Skinner's work, Chomsky went on to define language learning as part of an inherited cognitive process of the human mind pre-programmed from birth which became more commonly known as 'Nativist Theory'. He

believed that this cognitive predisposition for certain linguistic structures to be imprinted on the mind thereby allowing for each and every human being to learn a first language, not through imitation (as Skinner had hypothesised), but in understanding what makes a grammatically acceptable utterance made through several different processes that allowed for continual hypothesising about the correctness of language use.

2.2.1. Universal Grammar

For the word ‘universal’ to apply to language learning it is implied that there is a general rule that must cover a wider set of rules in the majority of languages, and this is exactly the case argued by Chomsky in defence of his ‘nativist theory’. As we know, any sentence in English is subject to rules governing the type of words used and the order in which they are placed, and with very few variations in these orders, the idea of a universal grammar becomes clear.

Take for example this sentence in English, “The teacher gave a lecture.” We can see an order of Subject (The teacher), Verb (gave) and Object (a lecture) which can be used to form an almost infinite amount of combinations through the interchange of other nouns and verbs, especially considering the possible additional use of adjectives and adverbs, before even considering adding other dependent or independent clauses. In looking at the majority of world’s languages, it can be seen that around 75% of them employ either the SVO or SOV order, with a minority of around 15% opting to use VSO or VOS. As a child grows and listens to its parents, the sentence structure used, be it SVO or SOV, does not in fact matter, as the child will automatically hypothesise and re-hypothesise until the correct order is acquired ready for later use. Chomsky believed that this input was a mental process made by a theoretical component of the brain known as the ‘Language Acquisition Device’ and called this part of the LAD process ‘setting the parameters’. Although this testing and retesting of language takes some time for the child to get completely correct, it is obvious that they are not simply repeating the phrases they have heard as Skinner would have us believe. Over time, even accounting for such language accommodations as ‘motherese⁵’, the use of grammatically incorrect sentences such

⁵ Now replaced by the more politically correct term ‘parentese’. A term used for the process of language adaptation used by parents to simplify conversation with children to ensure successful message

as ‘Mummy go’ is rarely if ever used, yet it is not uncommon for a child to use this form before finally learning that the appropriate form of the verb ‘to be’ is needed to form the sentence correctly. Moreover, in applying a blanket rule for a grammar tool such as comparatives, children are often wont to use ‘*beautifuler*’ or perhaps even ‘*expensiver*’ before finally realising that the exception to the rule of a multi syllable adjective brings about the use of ‘more’ to make the sentence grammatically correct.

Chomsky is not without his critics however. As far as Universal Grammar is concerned, his analysis leaves language devoid of all contextual meaning. According to the grammar rules of English, the sentence composed by Chomsky in his book *Syntactic Structures*, “Colourless green ideas sleep furiously⁶” is actually grammatically correct, however, it is a sentence that has undoubtedly never been uttered in any kind of meaningfully contextual way. In this case, all relevant and appropriate collocations or connotations are utterly ignored and the sentence would almost definitely leave the receiver beyond confused. It is because of this many of the ‘UG’ critics believe that the social conditions of language learning were completely disregarded. Be that as it may, given the idea that at birth, a child is given an amount of language hypotheses to analyse and re-analyse based on input, and that the majority of languages follow a particular order (or at least a close variation of that order), and that there is an inborn understanding of how and where, nouns, verbs, adjectives and adverbs are placed in a sentence, then the concept of ‘Universal Grammar’ becomes not only clear but almost obvious in its existence, especially given the speed with which a child is able to accurately learn their mother tongue.

2.3. Brown and First Language Acquisition

Chomsky’s theories of the ‘Language Acquisition Device’ and the concept of ‘Universal Grammar’ are of course both concerned with first language acquisition as the

transmission, although it should be noted that the form is not universal and has been defined as more intense and demanding by fathers rather than mothers. This may also be known as ‘caretakerese’ to include grandparents or nannies.

⁶ This sentence was famously used by Chomsky to demonstrate the lack of context present in the UG theory.

hypothesis takes into account how a baby develops language from parental input, and Brown admits as much in his work from the late 1960's and early 1970's in investigating acquisition order in young children by clearly expressing a debt to Chomsky's work. However, in the preface Brown makes it clear that he is "more interested in the data of performance than (I am) in speculation about not very well specified language acquisition devices" and so introduces the idea that hypothesising is all very well but cold hard facts are always needed as the basis of any kind of scientific discovery.

Brown's investigation into first language acquisition was not just concerned with English, but with all languages as a consistent viewpoint with Chomsky's concept of Universal Grammar, although he was also very clear to point out that many other factors such as semantic meaning should clearly be considered in the path of language acquisition.

This is a work about sentence construction and sentence understanding, and that is certainly not all there is to the acquisition of a first language; it completely excludes pronunciation and the growth of vocabulary. The five aspects to be described⁷ do not even exhaust processes of sentence construction. What they are, is a set of major processes, existing in every language I have ever read about and accounting for much of the power that language brings to our species. (Brown. R, 1973: 3)

Although, Brown divided his work into five separate aspects of sentence construction, it is Stage II, titled "Grammatical Morphemes and the Modulations of Meaning" with which this research work will be more concerned. It is here that Brown ranked the accuracy of the morphemes and classified the order of acquisition for a first language, although as events transpired, his hope that this order may be very closely linked with acquisition order in a second language was in fact proved to be true. Although language for his three subjects continued to develop beyond stage II and in some cases beyond stage V (the full list of which can be seen in Appendix 2), Brown chose to discuss

⁷ Only stages I and II titled, Semantic Roles and Grammatical Relations, Grammatical Morphemes and Modulation of Meanings were discussed in "A First Language: The Early Stages" while he intended to elaborate stages III - V in the sequel.

the order of acquisition at this point as he claimed that the first “sproutings of the grammatical morphemes” appeared here before they began to fully develop.

2.3.1. Defining the Morpheme

Primarily, it would first be wise to define some terms that are involved with this particular area of study, before examining Brown’s results and conclusions. Brown’s studies were of course concerned with discovering a universal path of learning in a first language, but it should be noted that it was focussed around two particular fields of linguistic science: Morphology and Syntax.

Syntax is defined as the study of sentence structure and how words and phrases should be linked together in language. An example of this in English would be the placement of an adjective before a noun rather than the reverse in Spanish.

Morphology delves deeper into the sentence structure by studying word structure and how each word can be transformed using different word roots combined with prefixes or suffixes called morphemes to change meaning or word type. For example, the word “know” has 32 different forms in the English language created through tense transformation, the use of prefixes and suffixes or a combination of both.

Morphemes are the single units of meaning in a word that cannot be broken into smaller units of meaning. They may not necessarily be words in their own right, but add meaning to the word through the process of morphing. An example of how morphemes transform meaning can be seen by analysing the word “excited”. The word in this case is an adjective describing a state of feeling and as it cannot be broken down into smaller chunks of meaning, and is considered to be one morpheme. By adding the prefix “un” (a second morpheme), the word has taken on a different meaning, that of not being excited. Finally, by adding a third morpheme, namely the suffix “-ly”, the word has now transformed from an adjective to an adverb and as such must now be placed at a different point in the sentence structure, thereby involving the linguistic field of Syntax.

This brief overview of terms demonstrates how a combination of morphemes in word formation / transformation (morphology) has an effect on the

structure of a sentence or word placement in that sentence (syntax), altering the communicative intention.

2.3.2. Defining Morpheme Use

The final ranking for Brown's chosen 14 morphemes can be seen in Appendix 2, compared with some additional results from studies of L1 and L2. However, what is most important here is to explain some similarities and some nuances that differentiate Brown's research compared to this one.

First and foremost, Brown spends quite some time discussing the semantics of the utterances in his research, deciding whether or not particular morphemes are well-used dependent upon context and inflection. He mentions for example, the use of the articles 'a' and 'the' when referencing the specific and nonspecific as should be expected. However, in one particular conversation, one of the children Brown is investigating says that she is going to 'draw *a* moon' while later on, stating the idea to be, 'drawing *the* moon'. As Brown states, neither of these is incorrect, as the former references the non-specific first instance in the conversation, and the latter is a reference to an earlier use. In a further conversation, the child immediately references 'the moon', which is also not incorrect as we often refer to our only moon as a specific referent. Finally, regarding article use, for the purpose of this research, 'an' was considered to be a part of the use of the indefinite article 'a' and its data was recorded as such.

Furthermore, Brown considers inflection use to have an effect on the accuracy of morpheme use in that they may create some redundant additions of the verb 'to be' or that their correct use signifies a more specific idea rather than simple word use alone. He broke these contexts down into four separate categories, but given that the purpose of this research is to investigate the acquisition of a second language through spoken and written production, it is important to note that for the most part, the idea of inflection or word stress will have been fully developed in the first language and so is unlikely to cause a great deal of interference when applying them in a second language classroom environment. Therefore, all recorded data was subject to a simple analysis of 'correctly' or 'incorrectly' used, and any attempt to adjust inappropriate use was confined to simple grammatical correctness rather than

any kind of semantic implication. Additionally, poor pronunciation was not considered to score incorrectly unless the word became confused with another, thereby causing possible confusion in the transmitted message.

In the scoring of these 14 morphemes, Brown came to three conclusions, although only two are specifically relevant here. The third focussed on the length of utterance (MLU) made by each child, which of course increased as the child developed through the five stages of acquisition⁸. This conclusion however does not necessarily concern us in this research as the sample of students here would have achieved stage V in their native language and therefore would understand that in a second language, a lack of vocabulary or grammatical structures would restrict the length or development of an utterance rather than any kind of lack of understanding of what is necessary to fully complete an intended message.

By contrast, Brown's first two conclusions concern this study greatly. First, he realised that even though the three children of his study were of different ages and were complete strangers to each other, the order of acquisition was in fact quite similar, although he stopped short of actually hypothesising what the reason for this may be, simply stating, "Some factor or set of factors caused these grammatical morphemes to evolve in an approximately consistent order." The second conclusion was related to rate of acquisition development. Although an accuracy threshold of 90% was declared to denote an accomplished level of use, the pace with which each child was able to achieve this level for each subsequent morpheme varied widely.

2.4. Krashen and Second Language Acquisition

It is in the hypotheses of Krashen and theories of second language learning from his 1982 publication, 'Principles and Practice in Second Language Acquisition' that we begin to see the elements that compose a great deal of this research. Krashen's goal was to examine the relationship between second language teaching practice and the process of second language acquisition in which he concluded that the solutions to achieving successful language teaching were not sophisticated language analysis, but "when it

⁸ The mean length of utterance (MLU) was calculated across all five stages of development and ranged from 1.75 words in Stage I to 4.00 in Stage V. This of course is for a first language in young children and would bare no real relation to adolescents in a second language who have developed sufficient cognitive process to analyse the needs of a sentence beyond 4 words where necessary.

(language) is used for what it was designed for, communication.” Although in this research quantitative analysis is made regarding the successful use of specific morphemes, developing communicative competence is at the heart of this analysis, specifically in finding a path for other teachers entrenched in a second language classrooms to find the simplest route to achieving an acceptable level of accuracy in whatever method of contextual language production is required with the lowest level of resistance from unconscious cognitive processes.

Krashen’s most famous hypothesis of second language learning is actually divided into five separate hypotheses: The Acquisition - Learning Distinction, The Natural Order Hypothesis, The Monitor Hypothesis, The Input Hypothesis and The Affective Filter Hypothesis. Of these, we have already examined ‘The Natural Order Hypothesis’ at length in Brown’s work, and so there is no need to do so again, however three of the remaining four are of great importance at this time and should be reviewed to gain a full understanding of the purpose of this research. The ‘odd man out’ in this case being ‘The Input Hypothesis’⁹, which is concerned with input to the learner being adjusted to a level just beyond current competence in the hope of the learner finding the connection between current knowledge and input, thereby building understanding in a far simpler and less stressful manner.

2.4.1. The Acquisition - Learning Distinction

Krashen postulated that developing competence in a second language is achieved in two ways. Acquisition of a language is achieved in a subconscious manner somewhat akin to the subconscious and organic process of development of ability in a first language, while learning is a more conscious cognitive process in which grammatical rules for example are examined and analysed, to be applied at a later stage. The distinction could be better summarised with the idea that acquisition leads to the use of language as having a “feel for correctness” and that “errors feel wrong, even if we do not consciously know what rule was violated”, while learning is a more explicit concept.

⁹ Comprehensible input is of course of great importance to language learners to reduce levels of stress and frustration in the learning process, however, as the material studied by the students was in this case chosen as part of the school curriculum it can be assumed that the level was indeed both comprehensible and challenging.

In more recent analysis of language learning, many linguists are now of the belief that the line between conscious learning and unconscious acquisition has blurred to the point where they are almost indistinguishable from each other and “studies on the role of consciousness in second language learning are too diverse in their scope and claims to be compared” (Rieder, A. 2004:27). Given that this research aims to identify if the order of acquisition differs given the difference in language production forms in a formal teaching - learning environment (i.e. speaking and writing), then it must be considered that this line does indeed not exist and that with the correct method of coaching an acceptable level of accuracy can be achieved no matter the communicative purpose or form of language production.

Additionally, living and teaching in Lima, Peru, practically forces a belief that acquisition and learning are the same thing. Many students prefer to learn English by attending language institutes, which strongly focus on form rather than any kind of meaningful, communicative, contextual use of language. Moreover, although English is a widely learned second language, opportunities for use beyond the classroom are restricted to TV & movies, professionals who interact with large US corporations in the course of a business day, or adolescents interested in reading English literature and very often those who are involved with online gaming. While these possibilities for practice are somewhat limited, the students included in the sample of this research are able to use English more fluently and converse in a manner in which they are able to discuss grammatical rules while also commenting at times that a particular response or expression doesn't feel right.

2.4.2. The Monitor Hypothesis

In Krashen's book, *Second Language Acquisition and Second Language Learning*, the claim of the Monitor Theory is that as language producers we are attempting to constantly assess and adjust our output for an appropriate error free response. He asserts that this perpetual monitoring of output is only relevant to consciously learned forms, as more spontaneous communication does not allow time for the monitor model to apply itself and therefore is likely to be less accurate due to the lack of assessment time before transmission, (although given the

clouding between learning and acquisition, it is possible that the monitor is available in both situations).

Krashen was not the first to state this and admits it freely in by citing Lawler and Selinker (1971) in claiming that:

“...for rule internalization, two distinctive types of cognitive structures can be postulated. Firstly, those mechanisms that guide “automatic” language performance, where speed and spontaneity are crucial and the learner has no time to consciously apply linguistic mechanisms, and secondly, those mechanisms that guide puzzle or problem solving performance.” (Krashen, 1982:2)

Krashen claims that the use of the monitor happens only when three specific conditions are met. Firstly, sufficient time is necessary for conscious reflection upon the correct use of a particular rule. Secondly, correctness of form must also be part of the conscious process as “we may be so involved in what we are saying that we do not attend to how we are saying it.” (Krashen, 1982:23). Finally, a conscious knowledge of the rule is necessary. Having to account for these three conditions and given the speed of thought needed in a free flowing and spontaneous conversation, Krashen’s argument of the distinction between acquisition and learning carries some weight. Be that as it may, we know that conversations are prone to hesitations, restatement and reformulation in a first language, not to mention the avoidance strategies of a second language, and so it is entirely possible that while not fully utilised, a second language learner can apply a limited use of self-monitoring while attending to more conscious thought processes in a conversation. It goes without saying therefore, that in a less spontaneous production method such as writing, the monitor is almost definitely fully utilised.

2.4.2.1. Individual Variation in Monitor Use.

If conscious use of the monitor can be exercised given the language production situation, then it must also follow that given the myriad of

learning styles and personalities in our students, the application of self-monitoring and correction must also be seen as an individual characteristic that strongly affects its level of use. To this end, Krashen expounded on three distinct categories of the monitor user.

Monitor over-users are those students who constantly use the monitor at every given opportunity, checking their output for correctness, and therefore of course speak hesitantly, self-correct and “are so concerned with correctness that they cannot speak with any real fluency”. Overuse can be as a result of a lack of exposure to the language, in this case, particularly those who are “victims of grammar-only type of instruction”, or to personality in which learners simply do not trust themselves to form a correct utterance, which will be discussed in more detail as part of the ‘Affective Filter Hypothesis’.

Monitor under-users are those students who have probably acquired the language more naturally or those who have a more outgoing personality, choosing to simply ‘jump into’ a conversation and communicate for the sake of interaction. The under-user tends to be the type of learner who opts for the ‘correct feeling’ of an utterance rather than placing any kind of importance on rules and is “typically uninfluenced by error correction.”

Optimal monitor-users are those students who apply the monitor when it does not interfere with communication, relying on rules only when conditions allow for accuracy improvement. The goal of the optimal user is to place a priority on the communicative act supporting gaps in fluency with consciously learned form. It is obvious that being the optimal user is the goal for every learner and producing them is the optimal goal for every teacher. Consequently, defining the optimal user became a clear priority (as can be seen from the summary table below) to securing the integrity of the data in this research and was therefore defined as the initial step towards analysing the results accurately.

| Individual Variation in Monitor Use | | | |
|-------------------------------------|--------------|-----------------------|------------------|
| Monitor user | Spoken style | Uses conscious rules? | Personality type |
| Optimal | -Hesitant | Yes | |
| Overuser | +Hesitant | Yes | Self-conscious |
| Underuser | -Hesitant | No ¹⁰ | Outgoing |

Figure 1. Individual Variation in Monitor Use

Source: Own elaboration.

2.4.3. The Affective Filter Hypothesis

Even though the affective filter is one of the five hypotheses accredited to Krashen's theories of second language learning, it was first proposed by Dulay and Burt in 1977. Reviewed by Krashen, he states the three main variables as motivation, self-confidence and anxiety. Maintaining a low filter supports language acquisition especially in more communicative type activities while of course the inverse is true for those with a higher filter. These learners will seek less input where possible, while intended messages do not arrive at the part of the brain responsible for its decoding. Ultimately, the learner becomes fossilised (Selinker 1972) and will almost surely never become a speaker with native-like language¹¹. Balancing learning and acquisition opportunities with a nurturing and relaxing learning environment is crucial for any language teacher to ensure student's filters are reduced as much as possible promoting a smooth route to language learning.

2.5. Ethnography of Communication

Although Hymes' work and the 'SPEAKING' mnemonic have already been mentioned here as part of the justification of the investigation, it is important to understand the part his principles will play within the scope of this research investigation. An explanation of the function of each part can be seen in Appendix 4, however it is only the

¹⁰ Krashen made a distinction here that the under user may be able to recite knowledge of the necessary rules, but almost certainly felt they were nothing more than 'lip service' and were not used consciously

¹¹ Fossilisation refers to errors made in a second language, in which the first language grammar rules interfere with the second language. These are often made by non-optimal monitor users and can be attributed to over or under confidence when communicating. These errors can be very difficult to correct.

section titled “Ends” that need to be taken into consideration here. Hymes divides the ‘ends’ of a conversation into three subcategories: purpose, goals and outcome.

By way of explanation, Hymes uses the example of a humorous story told to family members by an aunt about her grandmother to illustrate the facets of the speaking model. With regards to purpose, in almost any conversation, the aim is to ‘entertain’, ‘inform’ or ‘persuade’, but even while attempting to regale the family with such a fun tale, the aunt has the goal to teach her audience a particular lesson about her grandmother’s activities. The outcome of course should be that with the lesson learned she has adjusted the behaviour of her family members perhaps protecting them making the same mistake again, or just ensuring they are able to apply the same lesson in a similar context.

As mentioned previously when discussing the work of Chomsky, the necessity for context in the communicative act will be largely overlooked in this investigative research. However, in considering that over and under users of the language monitor, or those students exhibiting a high affective filter could affect the results in a detrimental way, the primary stage was implemented taking into consideration the purpose, goals and outcomes of spontaneous conversation thus ensuring that only optimal monitor users were part of the data analysis.

Chapter 3

Methodology of the Investigation

3.1. Investigation Type

Before explaining the execution of the investigation, it would be wise at this juncture to examine the methodology behind the steps and the exact reasons for the style of the outline. Given that this investigation relies greatly on Chomsky's theory of Universal Grammar, Brown's study of first language acquisition and the subsequent second language studies, the overriding factor for analysis is accurate morpheme use to a specified percentage level. Accuracy of course points immediately to quantitative evaluation and the sequential process that it implies.

The entire research was carried out individually with the students working alone or in groups, and with minimal knowledge on their part. Only while the spontaneous conversations were being recorded did the students notice anything out of the ordinary, but very few demonstrated any anxiety at the time or expressed it later in their personal reflection. Overall, the concept of analysing classroom interaction using such models as FIAC¹² (Flanders Interaction Model) or the COLT model of discourse analysis (Communicative Orientation of Language Teaching)¹³ as defined by Allen, Fröhlich and Spada were largely overlooked, similarly to the work of Chomsky. Very little contextual analysis was taken into account, and accuracy levels were considered as a whole over the entire range of activities in an attempt to find a mean average of accuracy. In fact, these models have been criticised in recent years as they were found to demonstrate a "fragmented picture of classroom reality" (Kumaravadivelu, 1999:456).

3.2. Design of the Investigation

Primarily, it should be noted that this investigation should be thought of as an exercise in action research. Ultimately, action research attempts to analyse the activities that actually happen within the learning-teaching environment and support teachers in their

¹² Analysis model designed to study teaching patterns by recording varied categories of teacher talk and student talk to improve opportunities for students to improve their communicative language use.

¹³ Discourse analysis model designed to distinguish the interaction of more communicative classroom environments created by Fröhlich, M., Spada, N., Allen, P., & Fröhlich, M. in 1985.

methodology as a pose to the frameworks, models and concepts laid down by those in the varied fields of applied linguistics. As an action research investigation, the outline was designed to take into account the four classic stages: identify a problem, implement the plan, observe and then reflect on the effects. Having identified the problem as the need to understand the differences in morpheme accuracy in speaking and writing, the next stage was to implement the plan and collect the data.

The data for the research was collected over a period of 6 weeks during October and November 2016 and consisted of a mixture of conversation, class debate & discussions as well as varied written works, from personal journals to formal texts, each of which will be discussed in more detail in ‘Techniques and Instruments of Gathering Data’.

The school year consists of several themed-based units each of which lasts for around 8-9 weeks. Themes are based around a “Big Question”, which requires students to reflect upon a moral or ethical premise throughout each of the 3 main texts included. Each text supports students to consider a specific aspect of the question while learning important reading strategies (such as note taking, organising ideas or answering questions), vocabulary to facilitate comprehension and studying grammar forms necessary to express opinions regarding the topic. Each “text” takes around two weeks of class time to complete and culminates in a structured written text to incorporate the learned vocabulary and grammar structures.

After the material in the unit is completed, students embark upon an evaluation project in which they are expected to demonstrate their acquired knowledge over a two-week period to create a group product based around the “Big Question”. Students work together to research a topic, organise their ideas, create a written product and present their findings to the class as a group using the strategies acquired throughout the term.

For this research project, the big question with which the students concerned themselves was ‘How Can Change Improve People’s Lives’, and due to time constraints, two readings chosen which were ‘Riding Freedom’ and ‘Early inventions’. The former is an excerpt taken from the novel of the same name by Pam Muñoz Ryan and tells the true story of Charlotte Parkhurst who lived in the 1800’s in California. The excerpt reveals how Charlotte secretly dressed up as a man travelled into town to vote in a local election. The latter text, titled “Early Inventions” is an informational text that talks about the earliest incarnations of products that we still use today such as the elevator, jeans and vacuum

cleaners. For each reading respectively, the grammar contents to be studied are “use of sequencing words” and “past tense regular and irregular verbs”.

Taking all of this into account, this research project attempts to evaluate a range of spoken and written activities, ranging across a spectrum from the entirely spontaneous to the completely planned. At one end of the spectrum are the outside the classroom conversations of which the students are encouraged to keep a written record, which examines the frequency of the use of the specified morphemes during the day (in out of class situations) and how they feel about each conversation. This section of the data collection was concerned with establishing the level of the monitor over and under-user for Phase 1, but the results were also included in the final analysis of Phase 2 to ensure the varied balance of activities remained intact; while at the other end of the spectrum is a final writing exercise which was the publishing of a written text which underwent several stages of revision and review.

3.3. Population and Study Sample

3.3.1. Population

The sample of subjects was taken from a mixed gender school in Lima, Peru, which teaches children from pre-kinder stage (4-5 years old) through to 11th Grade (16 years of age). English is taught in formal language classes with a focus on a communicative style for 8 pedagogical hours per week in primary school and 7 in secondary. Each grade is divided into four groups (Yellow, Green, Orange and Red) according to student style, pace and ability among other factors, with each group studying the same material based around the Longman publication “Keystone” from 6th grade onwards. Differentiation is defined in the complexity of tasks the students are required to complete according to higher or lower thinking skills as well as the level and length of language production expected.

Although the school is not bilingual, one additional course is taught in English by the ESL teachers to students from 7th - 10th grade for 2 pedagogical hours per week. The additional course is called “Project Based Workshop” and aims to foster teamwork and social responsibility in the students. In this case, English is the vehicle only, although to support functionality, some lexis and forms

are briefly reviewed / studied to ensure a clear message when communicating. Beyond the courses included in the curriculum, an after school workshop began in 2016 to prepare primary students for the YLE Cambridge Flyers exam, while I have been responsible for conducting an after school workshop to prepare students from 10th and 11th grade to take the Cambridge FCE exam over the last 4 years. Finally, I am also responsible for preparing students to participate in Model United Nations (MUN) events that take place in Lima, often with other students of schools from all around Peru. These events require a high level of preparation regarding serious world issues (such as refugees in conflict zones or world hunger) in which the student represents the UN delegate of a particular country, and is expected to negotiate with the other delegates to find a satisfactory resolution to the issue.

3.3.2. Study Sample

For the purpose of this research project however, focus will be placed on students in 10th grade, making them around 15 years old and consisting of 12 boys and 13 girls. The group chosen for study in this case is the “Orange” group for that grade, which places them at a reasonably low level of English with some definite challenges in critical thinking skills. Although they will have studied each of the chosen morphemes, very few are used at a level that could be viewed as competently acquired. Brown (1973: 263) concluded that once accuracy has reached 90%, performance stays at that level or above.

Although the sample of learners in this study could essentially still be called children, most if not all of them should be developing into the Formal Operations Stage of maturation as defined by Piaget¹⁴ in his work on cognitive development, and so could be viewed as beginning the adult stages of life.

Piaget defined 4 separate stages of cognitive development, of which it is the final that concerns us here. The Formal Operations Stage is seen as the development stage when a child is able to move from concrete, logical thoughts to a more abstract style of thinking, where deductive reasoning and shades of grey thinking becomes possible in adulthood.

¹⁴ Piaget’s four stages of cognitive development are: the sensorimotor stage (0-2 years), the preoperational stage (2-7 years), the concrete operational stage (7-11 years) and finally the formal operational stage (11 years and beyond)

A further development into adulthood at this stage is known as Adolescent Egocentrism, a term coined by David Elkind, in which he wrote of how the developing level of self-consciousness and awareness raises as young teenagers become more socially aware of their surroundings as they mature into adulthood.

*One consequence of adolescent egocentrism is that, in actual or impending social situations, the young person anticipates the reactions of other people to himself. These anticipations, however, are based on the premise that others are as admiring or as critical of him as he is of himself*¹⁵. (Elkind, 1967, p 1029)

Elkind's theory is of great concern to us here, specifically in connection with Krashen's Monitor Hypothesis as it is likely that adolescent egocentrism will play a part in the student's confidence causing longer periods of silence (over user of the monitor) or a lack of concern over accuracy (under user of the monitor) leading to a corruption of the result. To ensure that the results gained in Phase 2 of this research could be viewed as reliably obtained and sufficiently unbiased, it is essential to determine the level of introverted or extroverted behaviour in language production and remove those learners from the research who may have a detrimental effect on the accuracy of the morphemes to be tested, leaving only those designated as having optimal language output. See fig 1

3.4. Variables

For the most part in this investigation, variables of gender, age ethnicity in the sample were not considered as necessary to control to achieve the results required to test the hypothesis originally defined of discovering the difference between morpheme accuracy in written and spoken production. As with each of the investigations that make up the morpheme studies, the study sample was chosen without any great concern paid to L1 interference in the L2 and subsequently the results showed a similarity of acquisition

¹⁵ In Egocentrism in Adolescence, Elkind discusses egocentrism as a central theme across all four stages of development outlined by Piaget, arguing that cognitive structures according to age reflects upon the personality of the age group.

across the board regardless of the ethnicity and age. However, the speed of acquisition did vary and was mostly attributed to Chomsky's theory of the 'Language Acquisition Device', but was not considered, as it was not the main objective of the analysis.

Scientific variables should be used to control 'normal behaviour', affording the researcher the opportunity to tweak other facets of the research thus ensuring that the intervention created can be proved to have generated a difference in results thereby proving or disproving the hypothesis. As the opening phase was concerned with finding those students considered to be over or under users of Krashen's monitor hypothesis to remove from the final analysis, a controlled variable was not necessary to change or monitor behaviour. Furthermore, to obtain relevant and valid information in the second phase, all results from the student's work was considered and therefore again, no control was necessary to administer.

It was not until the final phase of the investigation that any kind of controlled environment was necessary. With the difference in accuracy established, a control group was given no further input while the test group was supported with input on improving accuracy on those morphemes considered to be close 'full acquisition' according to the 90% threshold. Having controlled the environment in this way, it was possible to discover if focussed and directed error correction would reap greater improvements in accuracy than had previously happened.

Ultimately therefore, given that the students received the same material to study, delivered by the same teacher, the language production itself was used as the independent variable. To finally introduce an element of dependent variability, the experimental group were supported in the process of error correction to discover the effect of concentrated focus upon 'almost acquired' morphemes, thus proving the validity of the classroom-teaching hypothesis.

Independent variables

- Population: A mixture of boys and girls of around 14-15 years.
- Language production tasks: Classroom tasks with varying levels of spontaneity against planned production in speaking and writing.
- Morphemes: 14 morphemes originally chosen by Brown for 'The Morpheme Studies' based on his specified order of acquisition.

Dependent Variables

- Monitor hypothesis: Under and over users of the Krashen Monitor were removed from the study to obtain truer results.
- Language Production Results: Differences obtained in the accuracy of morpheme use, dependent upon the production tasks attempted

Control Variables

- Error correction: Guided input given to the control group on ‘almost’ acquired morphemes

3.5. Techniques and Instruments of Gathering Data

The data collected over the period of the research took many forms and was designed to be as varied as possible between spontaneous and planned in written and spoken production. In this way, a mean average of accuracy could be established across the morphemes to ensure a balance of results without any unexpected spikes or anomalies.

3.5.1. Sampling Speech

3.5.1.1. Outside the Classroom

3.5.1.1.1. Conversations Part 1

Over the course of the research, as many opportunities as possible were taken to speak to the students about issues outside of the classroom, covering topics such as: school, family, friends, social media, music, TV and movies among others. Additionally, students were encouraged to speak to me as often as possible. Primarily, the idea was to establish which students were over or under users of the self-monitor and would therefore influence the final results of the research, although once the data of those students had been excluded, the data of those students who remained was still included in the final result.

To collect the data with as little disruption as possible, all conversations were recorded without student knowledge in an

effort to keep them as relaxed as possible, and then convert them at a later stage to text. To achieve this, the apps “Recorder” for the audio and then “Dragon” to convert the speech to text, were utilised. These two apps were chosen as they gave the most accurate results according to the utterances created by the student. Other speech to text converters had some difficulties with the accent used by the students, and also gave results that attempted to correct any mistakes to complete well-formed sentences rather than the sentences, and utterances they had actually formed. Although the “Dragon” app was not perfect, it led to the least amount of necessary corrections from the audio, and because of this it was chosen as the best option.

Although the students were not informed that our conversations were recorded, they were asked to regularly complete a diary of any conversations they had in English as a way to cross reference their thoughts and feelings against their actual performance. The diary was also used as part of the evaluation process and will be discussed in more detail in the section ‘Analysing Speech Results’. To ensure consistency, a list of questions was created to use as a guide when speaking to the students and were designed to take into account the different morphemes from Brown’s study and attempt to produce certain morphemes based on wording and ideas. The list of questions can be found in Appendix 3.1 while samples of some answers can be found in Appendix 3.1.1

In evaluating the answers to the questions, the correct use of morphemes became easier to assess after each conversation; however, it soon became apparent that evaluating the use of Krashen’s Monitor Hypothesis in the early stages was going to be more difficult. To solve this issue, each conversation was broken down into separate stages based on the ‘Ends’ category of Hymes SPEAKING mnemonic (see appendix 4). Hymes’ model breaks down the entire conversational act into eight distinct criteria that

he feels should be considered to fully analyse speech, although at this stage it was considered necessary to evaluate only “Ends” to demonstrate confidence to achieve a purpose, goals and outcome.

3.5.1.1.2. Conversations Part 2

While monitoring the correct use of specific morphemes is time consuming, reporting the results accurately is not particularly difficult. On the other hand, precisely identifying if a student has genuinely achieved the original purpose of a conversation is far more difficult, as is identifying if the tone and register are appropriately applied. The level of subjectivity and personal feeling in these characteristics certainly leaves the validity of this research open to question. To this end, students were also asked to reflect upon their English conversations throughout the day and enter their thoughts and feelings in a journal each day, specifically those taken with myself. The students recorded their reflections using a link to a “Google Form” which allowed immediate feedback and collation of the results. (See appendix 3.2). Over a three-week period, it was possible to speak to each student at least twice to monitor his or her performance. During this time, only three conversations were not recorded on the Google form by the students.

Additionally, to gain some idea of parity in evaluation, each conversation that took place was graded to assess the validity of the decisions made when selecting the over and under user of Krashen’s Monitor Hypothesis. At first the results were quite dissimilar, but as subsequent forms were submitted and returned to some students to discuss and identify some issues, it became increasingly possible to better evaluate their thoughts and feelings to gain a reasonable level of parity in the outcomes of each conversation.

3.5.1.2. Inside the Classroom

Throughout the entire research project, information was collected from several different classes to constantly monitor performance and improvement. As an example of this, the rest of this chapter is dedicated to describing some typical activities developed inside the classroom. To speed up the process of evaluating the more structured writing tasks, any texts created that were reviewed before subsequent drafts or final products were published were all created on Google Docs, with students instructed to turn off the spell check facility. Implementing the Google Add-on “GradeProof” (for myself only) supported the efficient and accurate evaluation of mistakes¹⁶, although a final check of each text was made to remove any possible system issues before recording the results.

3.5.1.2.1. Activating Prior Knowledge

As previously mentioned, this research project attempts to take into account a wide range of speaking activities from the entirely spontaneous and unguided through to planned presentations based on research and findings. Using the reading “Riding Freedom” as an example, the topic begins with small group conversations based around a short series of questions designed to cause some emotional responses. The questions were created on the app Kahoot! which allows students to submit their answers using their mobile phones. The first questions are designed to be almost rhetorical in nature to have students agree on what are obvious answers, such as, “Should women have the right to vote?” However, the class soon became divided when they were asked to answer whether people should be obliged to vote in elections, as is the law here in Peru. Some prompting was needed to reflect on whether the obligation to vote meant that the general population would be sufficiently knowledgeable of the

¹⁶ GradeProof is a mistake highlighting tool which quickly counted grammar and spelling issues allowing for specific cases to be accepted or rejected as necessary thus facilitating the error checking process.

main issues to make a balanced and well-informed decision when voting. The first few questions brought consensus from the class, however once the idea of uninformed voters swaying the result of an election occurred to the students, strong opinions surfaced. Some of the conversations were recorded for the small groups and again analysed for inclusion in the results. As with the conversations held outside of the classroom, students were asked to reflect upon these exchanges and share their thoughts and feelings towards their contribution, with the goal of expanding the sample data for analysing the over and under users of Krashen's Monitor. In this case, the students were asked to think about this just a few minutes after the conversation finished and complete their input during school hours. For this reason, all exchanges were recorded in these activities.

3.5.1.2.2. Story Comprehension

After the prior knowledge discussions and story predictions are complete, the students begin to read the story through combinations of listening to the teacher, to other students or reading silently. To support reading comprehension, students were asked to make notes regarding the analysis of historical content and to identify clues in the text that demonstrated life in that time period and the difficulties that Charlotte Parkhurst faced. At strategic points, reading stops and the story is discussed to ensure understanding and to help those who are having difficulties following along. The questions range from low thinking comprehension questions titled, "Right There" to those which involve some scanning of the text titled, "Think & Search", while those that test the higher level skills are titled "Author & You" and "On Your Own" which have the student reflect upon personal thoughts and feelings connected with the topic which led

into a group discussion question regarding the actions of the main character and whether they feel she was right to act in that way.

Differentiating the comprehension questions and reading activities in this way allowed for participation from the entire class according to their level of language competence and story comprehension. This ensures that all students not only participate in the class but also contribute to the data results of the research maintaining a varied input of competence and accuracy of language structures and morphemes.

3.5.2. Sampling Writing

As with speaking, the sampling of written work is taken from as many diverse areas as possible, such as a closed style questionnaire, through planned sentence and text compositions to free expression of thoughts regarding class content. Again, as with speaking, the idea is to strike the balance between the planned and the spontaneous.

3.5.2.1. Acting Out

In small groups, formed according to ability, students were asked to complete one of the following three tasks regarding the “Riding Freedom” story.

1. Summarise the story and perform as a dialogue
2. Add a missing scene not originally in the story, but maintaining coherence to the plot.
3. Add a scene showing how the town would react if they discovered Charlotte’s secret.

In preparation for acting the scene, the students treat this as any other writing assignment. Firstly, planning and preparing ideas, then writing a draft and revising before finally presenting the finished product. The revising takes a two-stage approach with stage 1 designed to guide ideas to

ensure coherence and stage 2 is made by the students themselves and includes grammar and spelling reviews. After drafting, each group is given time to practice before the final presentation in which they are encouraged not to use the scripts, so as to increase the possibility of the use of more natural language and improvisational skills.

Although the final product of the post reading activity is presented to the rest of the class as a play, due to the fact that the students write and revise a script before practice their lines and presenting, it was felt that this activity should also be viewed as part of the writing data.

3.5.2.2. Notebooks

Most of the work recorded in the students' notebooks is based around practicing vocabulary and grammar use and therefore as the focus is on creating a grammatically correct form, these exercises were not considered as part of the research, as the level of accuracy could be affected due to the fact that the creative process is not utilised. However, there are a few occasions where a more free style of writing is encouraged in the notebooks and on these occasions, the results have been incorporated. During the research, two texts of around three or four paragraphs based on building background knowledge and predicting the unit story were included in the data collection. Although both texts were written as a solo exercise, the piece on building background knowledge was completed after the class discussion conducted in the Activating Prior Knowledge activity. Examples of evaluated notebook work can be found in Appendix 3.3

3.5.2.3. Structured Compositions

As the unit progresses and work on reading and analysing the story is completed, the students are then required to write a text in a particular style. On this occasion, both are descriptive texts in which the students firstly describe a personal event or experience, and then in the second composition, describe an object.

The introduction to a piece of writing begins with the studying of a model and identifying its characteristics, such as introduction, using multiple adjectives, verb tenses and expected structure. After evaluating the model, the students begin work on a graphic organiser and create a first draft of their work. First drafts were collected and evaluated for structure, tone, register etc. and to give guidance on improvements or how to develop the second draft. At this point, only simple general guidance is given on verb tense and language use, most importantly on this occasion (among other reasons) to ensure that the results of the research were not influenced in any way.

The students then wrote a second draft based on these recommendations and of course are also self-monitoring their output to correct any errors they feel they have made. On completion of the second draft, the students then swap their work with their peers and are instructed to spend around 15 minutes to check for good structure as well as grammar, spelling or punctuation mistakes. Originally, the intention had been to drop this proof reading stage for fear that it may influence the natural order results in a detrimental way, but as the students correct their peer's work, then the level of accuracy is still held within the sample of the research and was therefore retained in the process. The final stage of the writing process is "Publishing" and as mentioned was completed using Google Docs with the spell check facility turned off in an effort to reduce any influence over the result.

3.5.2.4. Evaluations

Over the period of the research project students were formally evaluated in three different ways. Firstly, through the administration of spontaneous or surprise quizzes applied again through Google Forms, through a full written exam and finally through a 2-week project designed to assess the successful acquisition of not only the language facets of the content, but also the strategies learned in class. In each case, the language

forms were tailored to ensure the use of the morphemes from Brown's study so as to give maximum opportunity to apply each in a variety of ways.

3.5.2.4.1. Spontaneous Quizzes

In a similar vein to the conversations held outside of the classroom, the spontaneous quizzes were designed to test specific morphemes to establish a "general knowledge" of the language system rather than the content learned over the previous weeks.

In total, five separate quizzes were conducted over a five-week period. Each quiz contained 28 questions based on the 14 morphemes in Brown's study, meaning that each quiz contained 2 questions related to a specific morpheme. The question order was set to random for each quiz and the answer type was set to "Short Answer" rather than "Multiple Choice" to ensure that the students could not follow any type of patterns or pre-guess answers, thereby detrimentally influencing the results.

3.5.2.4.2. Formal Written Evaluations

The purpose of the exam is to evaluate the content and strategies which were learned in the first 3 - 4 weeks of the term and covers the recently studied vocabulary, grammar, reading strategies and writing style through a variety of integrative and open-cloze question types. Part 1, covers vocabulary and reading skills with questions to test comprehension, and higher thinking skills, while part 2 covers grammar and a text composition.

Typically, the vocabulary is located in a box at the beginning of the exam, however, the students are expected to enter the missing words into a longer text (based on the concept of "The Big Question" from the unit), thereby testing not only the understanding of each word, but also the necessary context and comprehension of the reading. The grammar sections contain

some fill in the gap type questions, so as to not offer any type of clue beyond the expected grammar classification expected, for example: “Present Progressive” or “Past Simple”.

The writing section of the evaluation consisted of a task based around the type of text previously learned with the expectation that the students would apply the use of the vocabulary and grammar learned through the unit to date.

3.5.2.4.3. Final Evaluation Project

In the final 2 weeks of each term, groups of 3-4 students are given a specific task to complete in which they must research a topic, organise their ideas, create a personal text and present their findings to the class as a group. The presentations may not necessarily be formal and could take the form of a radio program or interview depending on previous class activities.

The project was entitled “Change for Good” and groups were expected to research an existing product used in everyday life showing its development history and creating an advertisement to demonstrate the next step for the advancement of man.

3.5.3. Summarising the Method

As a final summing up to the methodology of the data collection, figure 2 is a graphical representation of the different exercises utilised and where it is felt they fall on a sliding scale between a spontaneous or planned process. The chart in itself is of a purely objective nature and is intended to summarise the balanced variation of the research project as a whole showing them across a line of a sliding scale beginning with the conversations held outside the classroom as the most spontaneous and ending with the published compositions and evaluation project as the most planned.

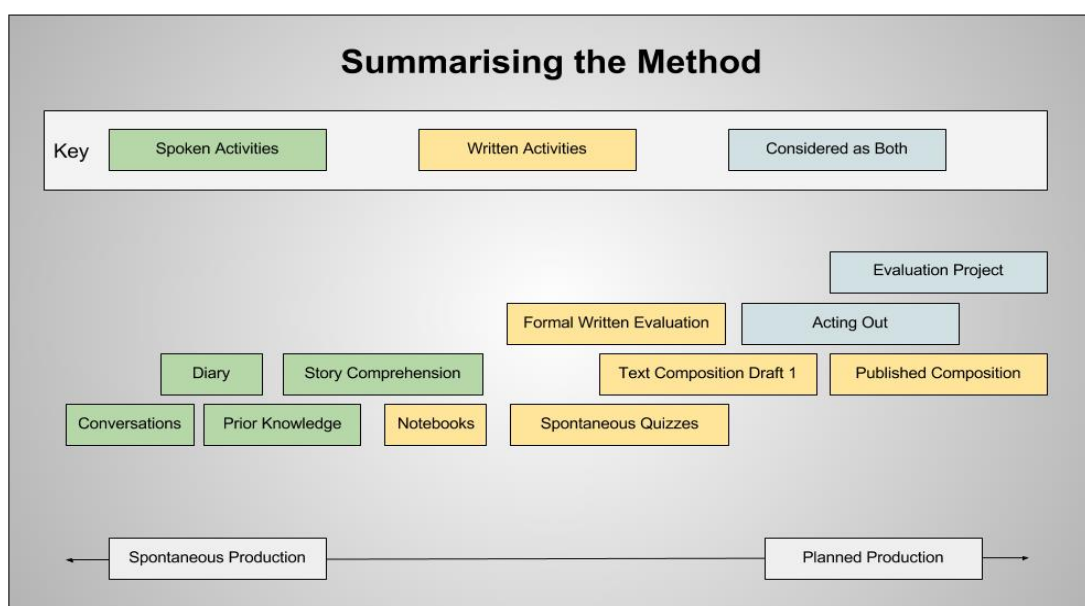


Figure 2. Sliding scale of spontaneous v planned activities
Source: Own elaboration.

To add further clarity to the summarised method above, it would be wise to show the development of activities over the data collection period to illustrate the development of language and skills learning in the students.

| Week | Topic | Activity | Research Project |
|------|---------------------|--|---|
| 1 | The First Americans | Spontaneous Conversations Prior knowledge Text Comprehension Vocabulary development Spontaneous quiz | Analysis of Monitor Over / Under User |
| 2 | | Spontaneous Conversations Draft and publish text Spontaneous quiz | |
| 3 | Riding Freedom | Prior knowledge Text Comprehension Acting Out Spontaneous quiz | Analysis of spoken versus written accuracy |
| 4 | | Formal written evaluation Draft and publish text Spontaneous quiz | |
| 5 | Evaluation Project | Research Organisation of ideas Draft text Spontaneous quiz | Conscious focus on specific morpheme accuracy with the experimental group |
| 6 | | Publish text Draft presentation of project Final Presentation of project | |

Figure 3. Schedule of activities
Source: Own elaboration.

3.6. Reliability and Validity

Taking into account the specificity of the textbook activities used to gather data in this research, the possibilities for exact reproduction can be considered as incredibly slim, if not impossible. However, given that the primary specific hypothesis sought to prove a disparity between morpheme accuracy in spoken and written production, then as an action research project, any teacher can reproduce the data necessary for analysis as long as a varied set of tasks and activities (as seen in figure 2) are implemented to ensure a balanced output from the students. Ensuring this wide variety of activities gives a strong internal validity to the research, as we can be sure that we are measuring both types of production while at the same time including those that range from almost spontaneous to those that take several attempts to refine before completion.

Ultimately, the specific order of morpheme accuracy according to Brown's work may not be faithfully reproduced, although as has been shown in Appendix 2, multiple studies have concluded with some variation in acquisition order. However, implementing the list of conversation questions (Appendix 3.1) alongside the student self-evaluation form (Appendix 3.2) provides reliability in the monitor hypothesis stage of the research as only those students whose personal results were somewhat similar to those of the researcher are considered as removable for over or under use of the monitor.

Finally, having repeated the research a second time in early 2017, (as can be seen in section 4.5 – Corroborating the Conclusions), it is proved a second time that there are accuracy differences in spoken and written production, and that the second specific hypothesis stating that focussed error correction on specific morphemes creates an accelerated acquisition rate is indeed true.

Chapter 4

Discussion of Results

4.1. Introduction

In attempting to establish the difference between speaking and writing in second language acquisition, the results have been divided into two main sections.

Firstly, the results from the teacher-student conversations endeavour to establish how many monitor over or under-users exist in the sample. These results may well have a large effect on interpreting the remaining results from the rest of the project, as an extreme proportion of either type of monitor user would have a detrimental outcome on establishing the natural order and its level of disturbance thereby leading to the possibility of discounting some results from the final analysis, or even to the creation of new methods of data collection.

The second phase of the results section presents the results of the remainder of the data collected, and sub-grouping them now into the three categories presented in Chapter 2: Analysing speech outside the classroom, analysing speech in the classroom and analysing writing.

4.2. Phase 1 - Removing the Extremes

4.2.1. Establishing the Monitor

Although Krashen gives no indication as to the level of over or under user in a general population, it is likely that if presented as a scale, then each extreme would be a minority percentage and therefore the overall effect on the natural order would be minimal across a large group. However, with such a small sample of students the possibility exists of detrimentally affecting the results to a high percentage level. Just 2 students with a high or low level of monitor use, could affect the results by as much as 8 - 10%. Given this low number of students in the sample, obtaining a low percentage of over or under-user students (less than 10% for example) could be all but impossible. Based on student's personal reflections as

well as my own from the conversations outside the classroom, I originally thought that the level of scores at 1 or 5 would directly demonstrate the level of over or under-users of the monitor, and based on the figures across the 6 weeks of testing, it can be seen in the graph (Figure 4) that the percentage figures are in fact very high, (averaging a combined score of approximately 25%) which equates to around 6-7 students in terms of a head count; an obviously unacceptable level.

After this preliminary evaluation, it became apparent that such a general method did not necessarily reflect the true picture and would severely distort the results when evaluating the natural order in phase 2 of the research. Therefore, a further step was introduced to establish the level of over and under-users. For example, those conversations initiated by the student that achieved the communicative purpose and scored a 5 for confidence did not necessarily contain a low level of morpheme accuracy (under-user), and inversely, those that still achieved the communicative purpose and scored a 1 did not contain a high level of morpheme accuracy (over-user). As a result of this, it was felt that it would therefore be necessary to cross-reference the results of the data collection from Conversations Part 2 in order to achieve an accurate and valid evaluation of the level of under and over-users of the monitor.

To finally establish the level of under-user, each answer on the sliding scale given by the student (3 questions) was added to the corresponding value from my own personal reflection, giving six opportunities to score up to 5 marks each, or a total of 30 marks. Any score of 27 or more (90%) or less than 9 (30%) were considered to be outside of the acceptable boundaries for a well-balanced conversation. Conversations with students showing high confidence levels were crosschecked with low morpheme accuracy scores (arbitrarily set at 40%), indicating strong under users of the monitor. Similarly, those students displaying low confidence scores with an extremely high level of accuracy (set at 90%) were considered to be over users of the monitor.

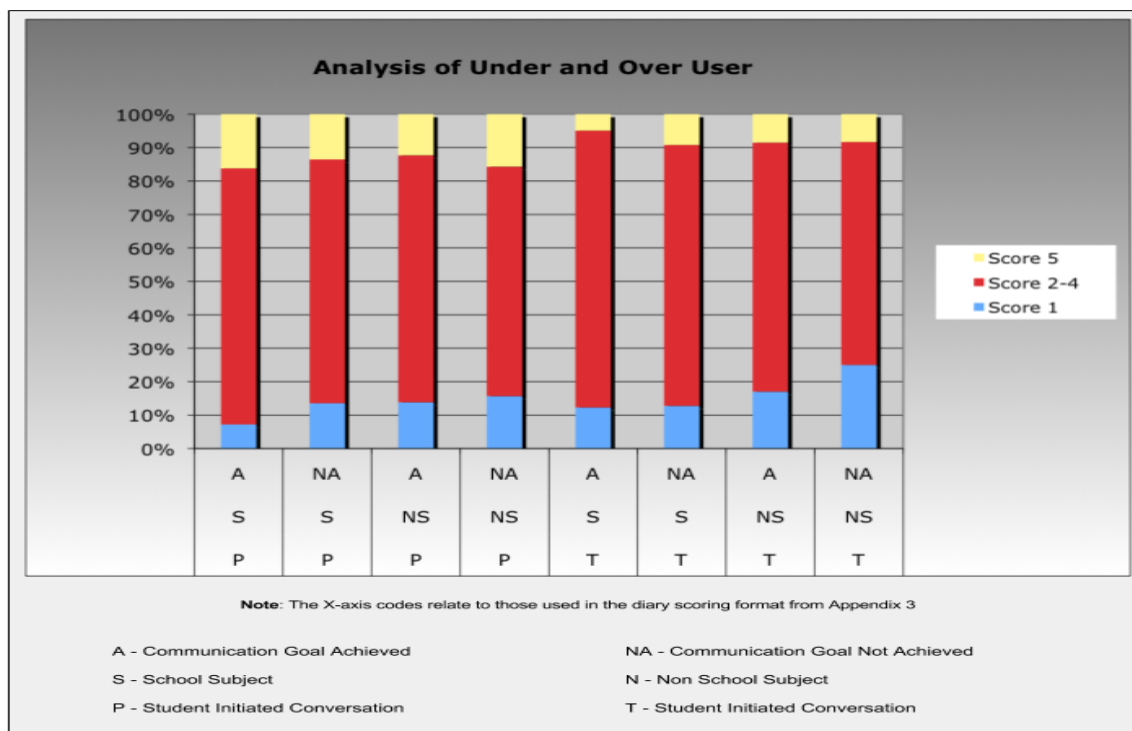


Figure 4. Results of the Monitor Hypothesis
Source: Own elaboration.

4.2.2. Monitor Conclusion

After fully analysing the results, it was found that it would be necessary to remove 3 students from the overall evaluation of the project to preserve the integrity of the data. In total it had been possible to evaluate each student on 4 separate occasions, making a total of 96 conversations. 3 of these conversations had not been recorded by the student leaving 93 conversations to be fully evaluated. As can be seen in figure 5, six students had originally shown extreme levels of confidence when speaking, however after cross referencing these findings with excessive morpheme accuracy results, this number was reduced to 3 students only; 2 over users and 1 under user.

| Summarising the Monitor | |
|---|----|
| Total students | 25 |
| | |
| No. students with confidence of 9 or below | 4 |
| No. students with confidence of 27 or above | 2 |
| | |
| Low confidence students with high accuracy | 2 |
| High confidence students with low accuracy | 1 |
| | |
| Total students removed from evaluation | 3 |
| Total students evaluated in Phase 2 & 3 | 22 |

Figure 5. Summarising the Monitor
Source: Own elaboration.

4.3. Phase 2 - Establishing the Differences

4.3.1. Analysing Speech Results

4.3.1.1. Outside the Classroom

Given that the data collection method included here was the most spontaneous, exposing the students to vocabulary and structures that they were not necessarily expecting to encounter, and therefore least likely to involve any kind of conscious monitor use, the assumption was that these results would more closely reflect the natural order originally ascertained in the previous research projects mentioned in Chapter 2 and shown in Appendix 2.

As can be seen from figure 6, this wasn't necessarily true, with Possessive "s" having the biggest differential in ranking, coming in at 6th on Brown's list, and in this research, positioning itself as the least accurate morpheme in 14th position. This though is attributed to an unusually high use of the Spanish structure of using "of" to signify possession, as in "The pen of Ian", which seems to be somewhat stuck in the lexis of the students.

Additionally, “Article” and “Past Regular” verbs achieved a wide swing, both increasing accuracy by 5 and 4 spaces respectively. More surprisingly, given the age of the students and the length of time studying English, none of the morphemes actually attained a level of 90% accuracy specified as ‘accomplished acquisition’ by Brown in his original 1973 study on FLA¹⁷. Given that the students have encountered and used all of these forms since 2nd grade of primary, the lower results should not be attributed to a lack of familiarity, but in the scope of this research it is also not possible to say with any degree of certainty what the cause for the lack of competent acquisition actually is.

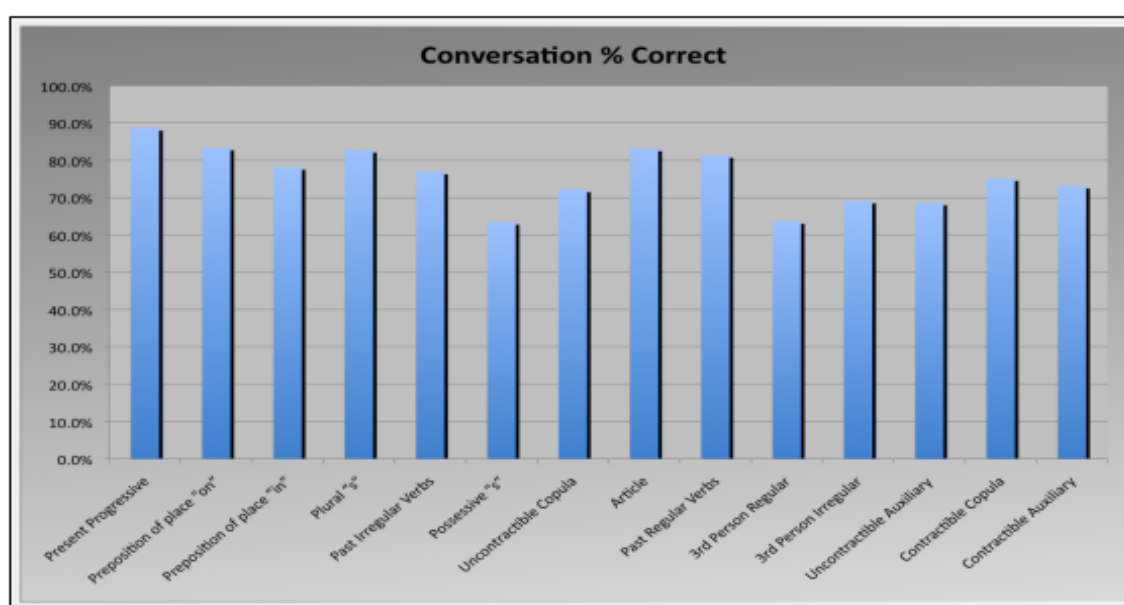


Figure 6. Conversation Results
Source: Own elaboration.

In summarising, although the level of accuracy did not achieve the 90% requirement, it is possible that throughout the learning cycle of any student, taking into account such language acquisition features as fossilisation or backsliding, it cannot be categorically stated that any one form is any more likely to reach the 90% mark before another, but as the purpose of this research is to establish how the natural order is disturbed, it

¹⁷ Brown noticed that accuracy tended to be erratic for quite some time until the level reached 90% and at this point it became far more consistent. (Brown, 1973: 258)

was assumed that the levels achieved would begin to form an initial ranking order that could be set as a base to compare with the remaining data.

4.3.1.2. Inside the Classroom

Although the intention of the data collection for the speech activities was always to demonstrate spontaneity in production, it should be remembered that those conducted inside the classroom were intended to either activate prior knowledge by discussing themes based around the previously read story or as discussions based around the moral concept of the unit's "Big Question". Compared then with the "speech outside the classroom" data, the expectation for these results was not necessarily to highlight any kind of enormous change, but merely to begin to reflect a pattern of stability or minimal increased accuracy across the range of morphemes with little to no disturbance in the order.

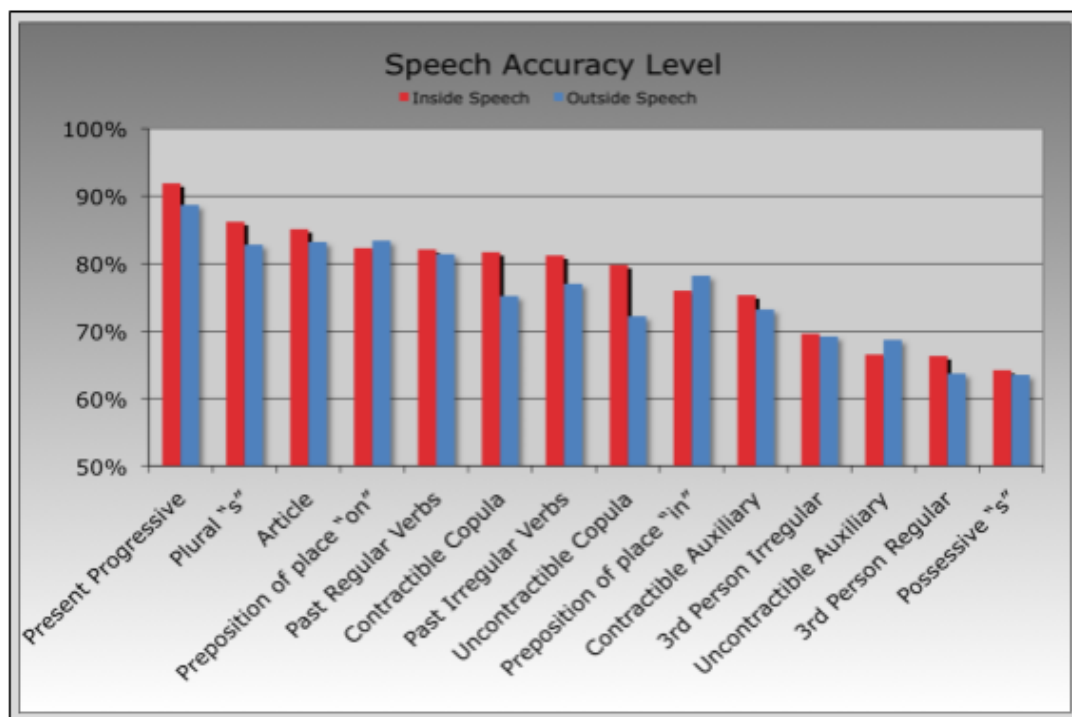


Figure 7. Speech Accuracy Inside and Outside the Classroom
Source: Own elaboration.

In general however, the results (shown in Figure 6) did show an overall increase in accuracy with only three morphemes presenting an individual decrease: preposition of place "on" as well as "in" and uncontractible auxiliary, with the largest percentage decrease as preposition

“on”, losing over 2% of accuracy against speech outside the classroom. More surprising was the extent of some of the gains in accuracy with “Contractible Copula” and “Uncontractible Copula” both gaining over 6% in accuracy.

These results should be considered even more extraordinary when comparing the two forms of past tense verbs, which moved further apart from each other in terms of accuracy rather than maintaining distance. Although there is no proof as to why this may have happened, it is possible that the slight increase in focused language coupled with a conscious awareness of a need for a different sounding / spelled word in the case of irregular verbs may account for such a startling difference.

4.3.1.3. Overall Speech Results

As previously mentioned, differences were found between the two forms of spoken activities, but overall the ranking of each morpheme remained essentially the same with variations occurring in the level of accuracy. Figure 8 shows the overall rankings of this stage compared to Brown’s results.

Although there are differences in the ranking order between Brown’s research and this project, and even though the purpose of this research was never intended to be to discover the reasons for these discrepancies, some of them at least were nevertheless expected. For example, with some elicitation and guidance, the students can recite the grammatical rules that accompany any of these morphemes reasonably easily with some support. As well as the issue mentioned previously with “Possessive -s”, “Prepositions of Place” are also consistently used incorrectly (due to having only one choice in Spanish) as is the use of ‘3rd person’ regular and irregular verbs. Although I don’t feel that this is necessarily entirely attributed to L1 interference, commonly the “s” is omitted in both speaking and writing and again accounts for the low result. On the other hand, it is rare that any prompting or elicitation is necessary in the case of ‘article’ morpheme use, which although not identical in both languages, certainly does contain a close link. As

mentioned, these differences were somewhat expected compared to Brown's L1 result.

Having established equivalent results to Brown's research methods validates the accuracy of this research and so allows these figures to be used as the benchmark in evaluating the increase in accuracy of the more conscious written production of the students.

| Results Comparison | | | | | |
|---------------------------|----------------------------------|-----------------|---------------|----------------|------------------------|
| Final Rank | Morpheme | Accuracy | | | Brown's Ranking |
| | | Outside | Inside | Overall | |
| 1 | Present Progressive | 88.70% | 91.90% | 89.0% | 1 |
| 2 | Article | 83.20% | 85.10% | 83.4% | 8 |
| 3 | Preposition of place "on" | 83.40% | 82.30% | 83.3% | 2 |
| 4 | Plural "s" | 82.80% | 86.20% | 83.2% | 4 |
| 5 | Past Regular Verbs | 81.40% | 82.10% | 81.5% | 9 |
| 6 | Preposition of place "in" | 78.20% | 75.98% | 78.0% | 2 |
| 7 | Past Irregular Verbs | 77.00% | 81.21% | 77.5% | 5 |
| 8 | Contractible Copula | 75.20% | 81.70% | 75.9% | 13 |
| 9 | Contractible Auxiliary | 73.20% | 75.32% | 73.4% | 14 |
| 10 | Uncontractible Copula | 72.20% | 79.80% | 72.8% | 7 |
| 11 | 3 rd Person Irregular | 69.20% | 69.60% | 69.2% | 11 |
| 12 | Uncontractible Auxiliary | 68.70% | 66.52% | 68.4% | 12 |
| 13 | 3 rd Person Regular | 63.70% | 66.30% | 64.0% | 10 |
| 14 | Possessive "s" | 63.50% | 64.20% | 63.6% | 6 |

Figure 8. Comparing to Brown's Results for Speech
Source: Own elaboration.

4.3.2. Analysing Written Results

On reflection of the different methods of data collection for writing, in addition to comparing each of those to Figure 2 at the end of chapter 3, the results for evaluating writing were felt to be best analysed in three separate sections. Section 1 is the work considered to be the most spontaneous, in that the students were asked to write a piece with a minimum of planning and revision, which contains notebooks, quizzes and exams. Section 2 consists of structured composition drafts 1 and 2, which have an increase in planning level as the students

are asked to create their graphic organiser before beginning the first draft and review teacher comments before writing the second draft. Section 3 is the publication of the structured composition, and was considered to be separate due to the fact that after draft 2, the students swap their work and peer assess their partners, searching specifically for grammar, spelling and punctuation errors (as well as structure and content, such as introduction, dialogue, conclusion etc.) It should be noted that the focus on grammar at this point normally consists of reviewing tense structures, particularly past simple, in which a great deal of L1 Spanish interference occurs due to the prevalent use of the language form, “Presente Historico¹⁸”, which is a constant issue for native Spanish speakers when communicating in English.

As can be seen in Figure 9, the results across the 3 stages of writing showed varied outcomes in development of the morphemes. Of the 14 morphemes, 4 reported a negligible change of less than 1% from stage 1 to stage 3 while accuracy improvements above 3% were seen in 5 cases, one of which was a staggering increase of nearly 7% in article use. Inversely, a decrease in accuracy was found in both preposition forms, which can probably be attributed to confusion from a lack of clear rules, or from students who may be attempting to over think the issue and becoming overly confused.

Although the differences reported across the three stages of writing show some large accuracy improvements, deeper analysis shows that the biggest advances actually came between writing stage 2 and publication where most focus was placed on peer checking and revising the accuracy of the work, rather than as a gradual increase across the three separate stages. The largest difference in accuracy between stage 1 and 2 was ‘Article’, which was just a 1.8% increase, and in actual fact, 5 morphemes showed a decrease at this point, the largest of which was ‘Uncontractible Copula’ at -1.2%. However as mentioned, when analysing the results for stage 3, the jumps in accuracy became much more apparent, particularly ‘Article’ which had a further increase of 4.9% giving an overall gain of 6.7%.

¹⁸ Use of the Present Indicative to narrate past events used as a method to create a feeling of closeness with the listener or reader.

| Improvements in the Writing Process | | | | | |
|-------------------------------------|----------------------------------|---------|---------|---------|-------------|
| Final Rank | Morpheme | Writing | | | Improvement |
| | | Stage 1 | Stage 2 | Stage 3 | |
| 1 | Present Progressive | 89.2% | 88.7% | 93.2% | 4.0% |
| 2 | Article | 80.1% | 81.9% | 86.8% | 6.7% |
| 3 | Past Regular Verbs | 83.1% | 84.5% | 85.3% | 2.2% |
| 4 | Plural “s” | 87.0% | 88.3% | 90.1% | 3.1% |
| 5 | Contractible Copula | 85.7% | 86.2% | 87.2% | 1.5% |
| 6 | Past Irregular Verbs | 81.2% | 82.0% | 84.7% | 3.5% |
| 7 | Uncontractible Copula | 83.2% | 81.9% | 83.5% | 0.3% |
| 8 | Preposition of place “on” | 79.9% | 79.6% | 78.2% | -1.7% |
| 9 | Contractible Auxiliary | 75.3% | 74.1% | 75.8% | 0.5% |
| 10 | Preposition of place “in” | 74.2% | 73.3% | 71.1% | -3.1% |
| 11 | 3 rd Person Irregular | 69.9% | 70.3% | 72.0% | 2.1% |
| 12 | Uncontractible Auxiliary | 70.2% | 70.5% | 71.1% | 0.9% |
| 13 | 3 rd Person Regular | 65.9% | 66.8% | 69.5% | 3.6% |
| 14 | Possessive “s” | 60.1% | 60.4% | 60.7% | 0.6% |

Figure 9. Improvement made through the Writing Process
Source: Own elaboration.

4.4. Phase 3 - Controlling the Disturbance

4.4.1. Comparing Accuracy

When analysing the results, gains in accuracy across all of the morphemes as the form of production became less spontaneous and more planned were fully expected, and this theory is reflected in figure 10, which lists the morphemes in order of accuracy differential between the most spontaneous and most planned activities. I.e. Impromptu conversations to publication of a developed composition.

However, if the improvements in accuracy had been purely due to a general increase in conscious focus owing to the nature of the exercises, then the expectant gains should have been consistent across all morphemes, which is clearly not the case, and so the conclusion could be drawn that these results show how the natural order can be disturbed.

Even though increases were made when moving from the speech exercises to the writing, and then, further gains were then made from stage 2 to publication of the composition, the morphemes that have shown the biggest increase are in fact those that are consciously highlighted prior to the peer correction exercise between stage 2 and publication. Of the top 10 increases made between the writing stages, 8 of them occur at Stage 3 of the process, when most conscious focus is placed on accuracy. When comparing the evolution of rankings of each morpheme across each stage of the writing, very few changed in terms of position, although most surprisingly ‘Article’ jumped 3 places to top position while ‘Uncontractible Copula’ fell 3 places to 7th.

Bearing these results in mind, Krashen’s hypothesis that the natural order is disturbed when conscious focus is placed on specific areas of language production would appear to be true, especially in the case of the previously mentioned morphemes that received additional emphasis in the final writing stage. However, as the results showed that those morphemes upon which conscious focus is placed were those that reported the biggest increase, it could easily be argued that this is the reason for the disturbance, rather than any kind of natural order of acquisition. However, in terms of accuracy ranking, some sharp changes did occur in the position of some of the “middle of the pack” morphemes which actually fared much better at the conscious focus stage suggesting that conscious focus of those morphemes closer to the acceptable acquisition level are those that the learner is more apt to improve upon more quickly.

Having taken all of the data into account, it can be seen that with conscious focus, acquisition can most definitely be affected, however it was obviously necessary to conduct one final exercise with a control measure to determine beyond a shadow of a doubt if the disturbance is a natural phenomenon or can be controlled and dictated.

| Accuracy Differential in Varied Activities | | | | | | |
|--|--------------|----------|---------|---------|-------------|------------|
| Morpheme | Speech | | Writing | | | Total Gain |
| | Conversation | In class | Stage 1 | Stage 2 | Publication | |
| Contractible Copula | 75.9% | 81.7% | 85.7% | 86.2% | 87.2% | 11.3% |
| Uncontractible Copula | 73.1% | 79.8% | 83.2% | 81.9% | 83.5% | 10.4% |
| Past Irregular Verbs | 76.8% | 81.2% | 81.2% | 82.0% | 84.7% | 7.9% |
| Plural “s” | 83.2% | 86.2% | 87.0% | 88.3% | 90.1% | 6.9% |
| 3 rd Person Regular | 63.2% | 66.3% | 65.9% | 66.8% | 69.5% | 6.3% |
| Present Progressive | 88.7% | 91.9% | 89.2% | 88.7% | 93.2% | 4.5% |
| Past Regular Verbs | 81.0% | 82.1% | 83.1% | 84.5% | 85.3% | 4.3% |
| 3 rd Person Irregular | 68.1% | 69.6% | 69.9% | 70.3% | 72.0% | 3.9% |
| Uncontractible Auxiliary | 68.3% | 66.5% | 70.2% | 70.5% | 71.1% | 2.8% |
| Contractible Auxiliary | 73.1% | 75.3% | 75.3% | 74.1% | 75.8% | 2.7% |
| Article | 84.2% | 85.1% | 80.1% | 81.9% | 86.8% | 2.6% |
| Possessive “s” | 62.1% | 64.2% | 60.1% | 60.4% | 60.7% | -1.4% |
| Preposition of place “on” | 83.1% | 82.3% | 79.9% | 79.6% | 78.2% | -4.9% |
| Preposition of place “in” | 78.1% | 76.0% | 74.2% | 73.3% | 71.1% | -7.0% |

Figure 10. Accuracy Differential from Spontaneous to Planned Activities

Source: Own elaboration.

4.4.2. Controlling the Improvements

As previously mentioned, 8 of the 14 morphemes reported significant gains after conscious focus, while of the remaining 6; only Plural “s” showed any kind of stability at all. Therefore, to prove that the disturbance of the natural order produced throughout the research is not in fact the result of merely changing production forms from speaking to writing, or that on a third attempt, a text suddenly produces a far higher level accuracy, the final step of this research project was designed to discover if concentrating on error correction based on the acquisition order was more beneficial than attempting to correct all of the morphemes at the same time.

4.4.2.1. Obtaining the Data

After the first four weeks of research, the students were expected to apply all of the knowledge learned in an evaluation project revolving around the big question for the unit: “Can We See Change as it Happens?”

In developing the project, the class was divided into cooperative working groups of four to five, giving six overall groups. As only 22 students were considered for accurate data collection after the “Establishing the Monitor” phase, each of the previously removed students was placed in a separate group, leaving 3 groups with 3 students to be monitored and 3 groups with 4 students to be monitored.

The project was developed in 3 main stages. Stage 1 involved research of the topic (in this case, the life cycle of an invention in current use) with a timeline created by each group to show an organisation and depth of ideas. Stage 2 involved creating a personal informational text to show the life cycle development of the product concluding with a prediction of how the product may develop in the next 10 - 20 years. Finally, the group also creates a TV advertisement set in the future to sell the updated version of the product.

At random, 3 of the groups were chosen as the control to receive error correction support on all 14 morphemes while the other 3 groups (known as the “Focus group”) were given support on only the 5 highest ranked morphemes overall: present progressive, article, plural “s”, past regular verbs and contractible copula.

4.4.2.2. Presenting the Results

4.4.2.2.1. The Control Group

Over the two-week period, the control group showed minimal overall improvement across the range of morphemes. However, even though this group was considered as the control, there is a loose relationship between the level of individual

morpheme growth and the established rankings for both speech as well as text composition.

The final results of the control show that the higher the level of acquisition morpheme, the higher the chances of accuracy through continued use and practice.

4.4.2.2.2. The Test Group

The expectations of results for the focus group were of course to see some kind of increase in the morphemes that were studied over the period, with little to no movement in the remaining morphemes. In actual fact, the results were even more startling than that. As can be seen in Figure 11, the growth of accuracy in those morphemes considered to be higher in accuracy was far above the expected level and showed that acquisition can be influenced based on the type of production and not necessarily in a generic order.

| Improvements in Speech | | |
|----------------------------------|----------------------|--------------------|
| Morpheme | Control Group | Focus Group |
| Present Progressive | 0.12% | 1.54% |
| Article | 0.19% | 2.02% |
| Preposition of Place “on” | 0.06% | 1.43% |
| Plural “s” | 0.05% | 1.72% |
| Past Regular Verbs | 0.1% | 0.03% |
| Preposition of Place “in” | 0.03% | 1.32% |
| Past Irregular Verbs | 0% | 0.21% |
| Contractible Copula | 0.01% | 0.04% |
| Contractible Auxiliary | 0.02 | 0.07% |
| Uncontractible Copula | -0.02% | 0% |
| 3 rd Person Irregular | 0% | -0.12% |
| Uncontractible Auxiliary | -0.01% | -0.1% |
| 3 rd Person Regular | 0.01% | 0% |
| Possessive “s” | 0.02% | 0.01% |

Figure 11. Speech accuracy growth
Source: Own elaboration.

| Improvements in Writing | | |
|----------------------------------|----------------------|--------------------|
| Morpheme | Control Group | Focus Group |
| Article | 0.18% | 1.98% |
| Present Progressive | 0.19% | 2.1% |
| Past Irregular Verbs | 0.09% | 1.93% |
| 3 rd Person Regular | 0.12% | 1.44% |
| Plural “s” | 0.08% | 0.1% |
| Contractible Auxiliary | 0.06% | 1.65% |
| 3 rd Person Irregular | 0.07% | 0.03% |
| Uncontractible Copula | 0% | 0.03% |
| Contractible Copula | 0.02% | 0% |
| Past Regular Verbs | 0.03% | -0.08% |
| Uncontractible Auxiliary | -0.03% | -0.01% |
| Possessive “s” | 0% | 0% |
| Preposition of Place “on” | 0.04% | 0.04% |
| Preposition of Place “in” | -0.03% | 0.02% |

Figure 12. Written accuracy growth
Source: Own elaboration.

4.5. Phase 4 – Corroborating the Conclusions

4.5.1. Justifying an Extension

After careful consideration of the valuable advice and feedback supplied by my tutor regarding the sample size of this research compared with the extensive claims of the hypothesis, it was seen to be important to revisit the process of the investigation to either further confirm or refute the claims of how classroom teachers are able to control the order and rate of acquisition of students in a classroom.

This investigation focuses strongly around an environment that can be guided and controlled by the teacher to facilitate the process of language acquisition. Although previously established that there are definite similarities in acquisition order across the results of the morpheme studies, differences certainly do exist. Consequently, it is with an understanding of these differences that a

teacher can actually evaluate their students and implement a cyclical action plan to maximise potential learning opportunities.

Having therefore developed into an action research project that can be conducted with a single classroom or multiple classrooms, it is easily possible to recreate the process of the study with a different sample of students and analyse the results to show a similarly impressive leap in “practically” acquired morphemes.

4.5.2. The Process – Part 2

4.5.2.1. The Sample - Part 2

The research process was carried out with students of 10th grade again, although with those of the “green” group on this occasion, meaning that the age in this case is similar, however the level of not only English, but also critical thinking skills should be somewhat higher. The class consists of 23 students, of which there are 13 girls, a slightly higher percentage mix, however, it is not the task of this research to drill down further into the possible variability of successful gender acquisition.

4.5.2.2. Further Variables - Part 2

As mentioned, the students of the sample are again taken from 10th grade, but it should be made clear that as we have begun a new school year these students are in fact minimally connected with the original sample, however the students of the green group are expected to have developed their skills and abilities to a slightly higher level. Additionally, as this subsequent process was conducted in May, the content of the class was also different.

Even taking into account these differences the most important difference in this investigation is the teacher of the classroom. After consulting with a colleague, it was felt that to fully prove the validity of an action research project it would be important to demonstrate the possibility

of extending the process beyond a personal investigation to that of one which can be used by any educator who chooses to do so.

4.5.2.3. Further Data Collection – Part 2

For the most part, the data collection process was conducted in an identical manner to the first, with a minor adaptation based on time constraints. This research process was conducted over a 4-week period in May 2017, compared to the six-week period of late 2016. To account for this, phase 1, “Removing the Extremes” in which the under and over users of the language monitor were removed from the results was conducted concurrently with the “Establishing the Differences” phase. In this way, it was possible to reduce the time needed while not detracting from the validity of the results. The final 2 weeks were again used for “Controlling the Disturbance”, and targeted those morphemes that were seen as almost acquired by the group.

The content for this unit revolved around the benefits of facing challenges and asked the students to consider the idea that any worthwhile achievement is something that we should work towards conscientiously. The methods of data collection followed the same tasks as those of the original investigation, including spontaneous conversations, self-reflection, formal presentations, discussions, debates, notebooks, quizzes, exams and formal texts. Formal texts were narrative in nature, usually retelling a story from a different point of view using first or third person and were again developed over two drafts and a publishing stage. Finally, the main grammar focus for the readings was prepositions of direction and gerunds as subjects and objects.

4.5.3. Presenting the Results - Part 2

4.5.3.1. Removing the Extremes - Part 2

As the degree of English is slightly higher than the students of the original investigation, expectations would suggest a possible reduction in the level of over-user with an increase in the level of under-user as students gain confidence in their abilities. However, taking into account Elkind's Theory of Egocentrism, this is not necessarily the case. In fact, based on the conversations conducted over the 2 weeks, the final sample was reduced by only 2 students: one over-user and one under-user.

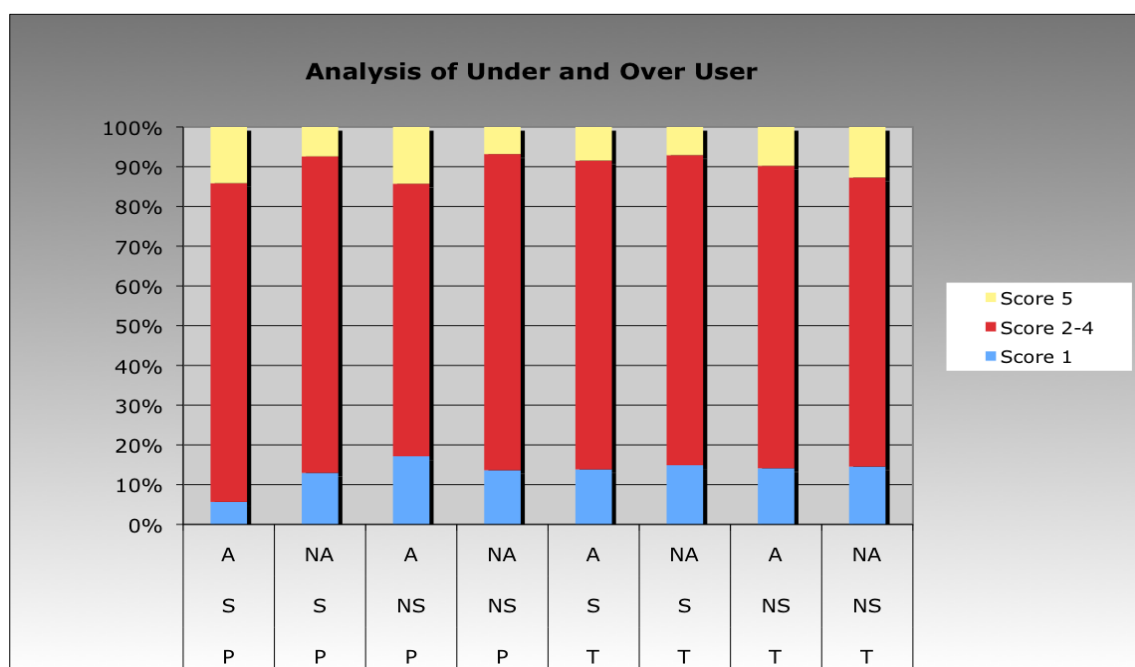


Figure 13. Results of the Monitor Hypothesis – Part 2
Source: Own elaboration.

4.5.3.2. Establishing the Differences - Part 2

In this case, all morphemes showed an improvement in written accuracy over spoken, although some were more significant than others. Most ironically, even though prepositions of direction were the studied grammar form, it was in fact the prepositions of location 'in' and 'on' that showed the greatest improvement. From the detail of the improvements (Figure 13), it is also possible to see the difference in acquisition order of the different morphemes, although rank change was minimal, with the

prepositions of place rising only 2 spots and the most notable drops being ‘article’ and ‘uncontractible auxiliary’ each losing 3 spots.

| Morpheme | Accuracy | | | Rank | | |
|--|----------|---------|------|----------|---------|------|
| | Speaking | Writing | Diff | Speaking | Writing | Diff |
| Contractible Copula | 77.1% | 83.2% | 6.1% | 8 | 8 | 0 |
| Uncontractible Copula | 73.5% | 81.8% | 8.3% | 10 | 9 | -1 |
| Past Irregular Verbs | 82.0% | 84.9% | 2.9% | 5 | 7 | -2 |
| Plural “s” | 88.1% | 92.8% | 4.7% | 1 | 1 | 0 |
| 3rd Person Regular | 68.7% | 73.3% | 4.6% | 14 | 13 | 1 |
| Present Progressive | 84.6% | 88.7% | 4.1% | 2 | 2 | 0 |
| Past Regular Verbs | 84.3% | 88.0% | 3.7% | 4 | 4 | 0 |
| 3rd Person Irregular | 68.8% | 73.5% | 4.7% | 13 | 12 | -1 |
| Uncontractible Auxiliary | 72.3% | 73.1% | 0.8% | 11 | 14 | -3 |
| Contractible Auxiliary | 75.8% | 79.3% | 3.5% | 9 | 10 | -1 |
| Article | 84.4% | 85.2% | 0.8% | 3 | 6 | -3 |
| Possessive “s” | 70.1% | 74.8% | 4.7% | 12 | 11 | -1 |
| Preposition of place “on” | 82.0% | 88.5% | 6.5% | 5 | 3 | 2 |
| Preposition of place “in” | 79.1% | 87.2% | 8.1% | 7 | 5 | 2 |

Figure 14. Difference in accuracy and acquisition order
Source: Own elaboration.

4.5.3.3. Controlling the Disturbance – Part 2

The final stage involves dividing the class into the control group and the test group to focus upon the ‘almost acquired’ morphemes in hope of making a significant boost in accuracy or even achieving the 90% ‘fully acquired’ target.

With 21 students remaining as a valid sample, the class was divided at a rate of 11 control students to 10 test students, and as with the first full investigation, the improvement in accuracy was quite significant. Although not on the same grand scale as the first investigation, the five ‘almost acquired’ morphemes for both speaking and writing showed a marked improvement over their original scores with a couple reaching the required 90% mark.

The results shown corroborate the original scores from the first investigation that controlled focus in the correct areas brings about meaningful accuracy improvement in ‘almost acquired’ morphemes in the classroom environment.

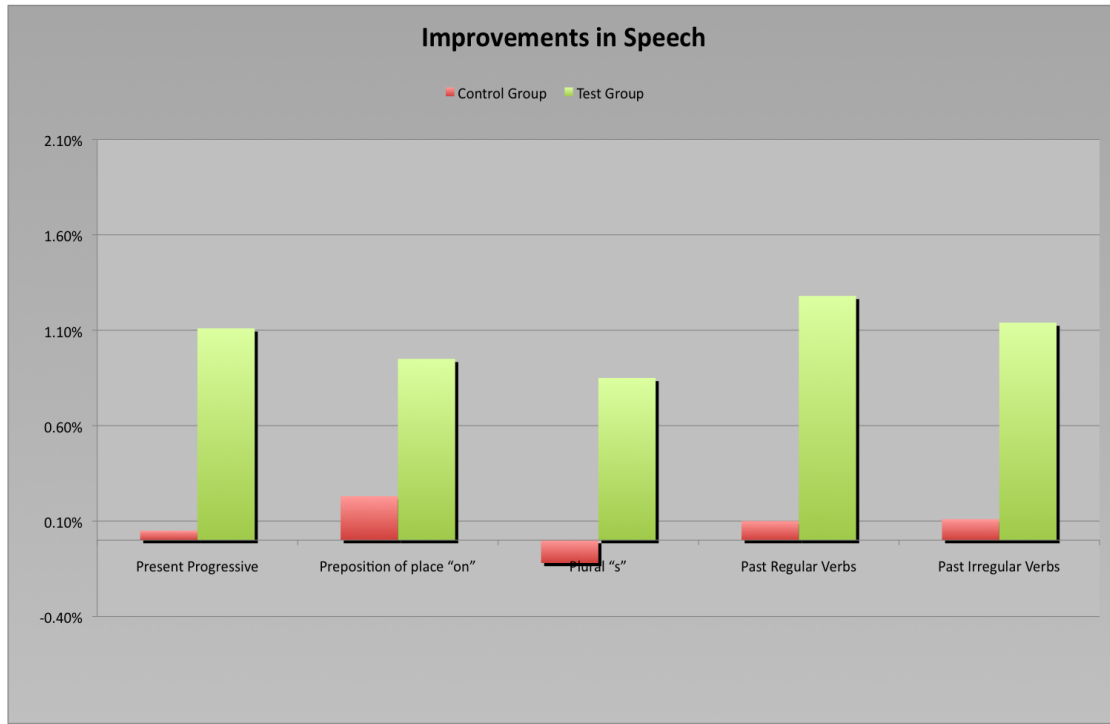


Figure 15. Control Group Speaking Improvements – Part 2
Source: Own elaboration.

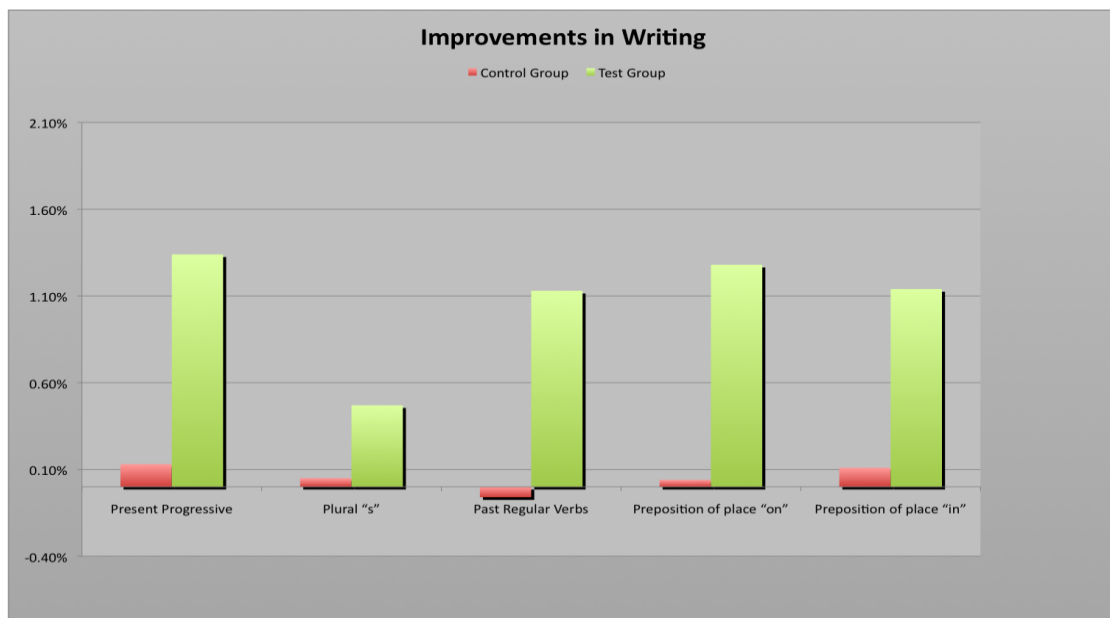


Figure 16. Control Group Writing Improvements – Part 2
Source: Own elaboration.

Conclusions

Although the period of research carried out in this investigation compared to others included under the banner of the morpheme studies could be considered too short to have established any kind of valid results, the difference made in morpheme accuracy certainly supports the fact that a positive change was made, and in following what could be reduced to some simple steps, any teacher can hope to make dramatic improvements to their students second language performance. Of the three hypotheses proposed for investigation, each has been successfully proved under controlled conditions and should therefore be considered as good practice.

1. Accuracy of morpheme use is dependent upon the method of language production
 - a. By ensuring the inclusion of a sample of optimal language producers, the improvements made in accuracy signify that the target morphemes are consciously processed during use.
 - b. Differences in the results between spoken and written production can therefore be considered valid.
 - c. Differences in accuracy between spontaneous and planned spoken activities prove the existence of conscious monitor use.
 - d. The improvement in accuracy made in the writing process of drafts and publication demonstrate successful acquisition based on focussed error correction.
2. Conscious error correction based on order of acquisition facilitates rate of acquisition.
 - a. Establishing those morphemes closer to successful acquisition in the different forms of language production is essential for student development.
 - b. Conscious focus on a small group of 'nearly' successfully acquired morphemes allows for accelerated acquisition.

3. Language acquisition can be achieved in a formal classroom environment.
 - a. Acquisition can be seen to have occurred based on the accuracy improvements in the most spontaneous of spoken activities.
 - b. The conscious difference between formal learning and acquisition is reasonably indistinct.

Recommendations

As mentioned in the introduction, the purpose of this investigation had been to simply establish the differences in acquisition between spoken and written production based on nothing more than personal curiosity. However, throughout the process, it became clear that a myriad of factors affected the process of learning, and while controlling each of these individually would have taken far more time and resources than were available, it became apparent that varied methods of error correction could also have a dramatic effect on the rate of acquisition according to the method of language production.

Second language teachers consciously adjust the level of intrusion they feel is necessary when students are producing language given the type of activity and the necessity for focus on a correct utterance. Additionally the methods used vary greatly and can include such techniques as correction through repetition, mistake stress, gestures & expressions or even group discussions to establish peer correction. In this case, error correction only became essential in the final stages for the focus group, and followed the form that I have personally developed in my experience as a teacher in recent years. Of course, this implies that without any kind of control or documented plan, the effect of the utilized strategies cannot be measured and cannot be proved to be effective or ineffective. All that can be stated with any kind of substance at this stage is that accuracy most certainly improved when conscious focus was placed on a specifically targeted group of morphemes.

Attempting to control the variables that obviously exist regarding this topic would need a great deal of planning and organization of control to establish the relevant techniques according to level of spontaneity and method of production. However, I believe it to be the next logical step in the process to discover how best to influence the rapidity of acquisition according to any established list of morpheme accuracy for any single or group of learners. Ultimately, I would recommend that two specific questions would need answering in any subsequent investigation:

1. Does varied error correction support accuracy?
2. Which methods of error correction support spoken or written acquisition?

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Appendices

Appendix 1. Brown's Classification of L1 Acquisition

| Brown's Stage | Age in months | Mean MLUm | MLUm range | Morphological Structure | Examples |
|---------------|---------------|-----------|------------|---|-----------------------------------|
| Stage I | 15-30 | 1.75 | 1.5-2.0 | Stage I sentence types | |
| Stage II | 28-36 | 2.25 | 2.0-2.5 | (1) Present progressive (-ing endings on verbs) | it going, falling off |
| | | | | (2) in | in box, pussy in |
| | | | | (3) on | on tree, birdie on head |
| | | | | (4) -s plurals (regular plurals) | my cars, two ties |
| Stage III | 36-42 | 2.75 | 2.5-3.0 | (5) Irregular past tense | me fell down |
| | | | | (6) -s possessives | doggie's bone, mummy's hat |
| | | | | (7) Uncontractible copula (the full form of the verb 'to be' when it is the only verb in a sentence) | Are they there? Is she coming? |
| Stage IV | 40-46 | 3.50 | 3.0-3.7 | (8) Articles | a book, the book |
| | | | | (9) Regular past tense (-ed endings on verbs) | she jumped, he laughed |
| | | | | (10) Third person regular present tense | he swims, man brings |
| Stage V | 42-52+ | 4.00 | 3.7-4.5 | (11) Third person irregular | she has, he does |
| | | | | (12) Uncontractible auxiliary (the full form of the verb 'to be' when it is an auxiliary verb in a sentence) | Are they swimming? |
| | | | | (13) Contractible copula (the shortened form of the verb 'to be' when it is the only verb in a sentence) | She's ready. They're here. |
| | | | | (14) Contractible auxiliary (the shortened form of the verb 'to be' when it is an auxiliary verb in a sentence) | They're coming. He's going. |

Source: Bowen, C. (1998). Brown's Stages: The development of morphology and syntax, Retrieved 27th January, 2017 from http://www.speech-language-therapy.com/index.php?option=com_content&view=article&id=33:brown&catid=2:uncategorised&Itemid=117

Appendix 2. Acquisition Order: L1 & L2 Comparisons

| L1 Studies | | L2 Studies | | | | |
|---------------------------------|------------------------------------|--------------------------------|--|---|-------------------------------|---|
| R. Brown (1973) | de Villiers and de Villiers (1973) | Dulay & Burt (1974b) | Bailey, Madden, and Krashen (1974) | Larsen-Freeman (1975) | Hakuta (1976) | Rosansky (1976) |
| | | Children (Spanish and Chinese) | Adults (classified as Spanish and non-Spanish) | Adults (Arabic, Japanese, Persian, and Spanish) | Child (Japanese) | Children, Adolescents, Adults (Spanish) |
| N=3 | N=21 | N=60 Span. 55 Chin. | N=73 | N=24 | N=1 | N=6 |
| 1 Pres. Prog. | 2 Pres. Prog. | 1 Art. | 1 Pres. Prog. | 1 Pres. Prog. | 2 Pres. Prog. | 1 Pres. Prog. |
| 2.5 on | 2 Plural | 2 Copula | 2 Plural | 2 Copula | 2 Copula | 2 |
| 2.5 in | 2 on | 3 Prog. | 3 Contr. Cop. | 3 Art. | 2 Aux. | 3 |
| 4 Plural | 4 in | 4 Simple Plural | 4 Art. | 4 Aux. | 4.5 in | 4 Art. |
| 5 Past Irreg. | 5 Past Irreg. | 5 Aux. | 5 Past Irreg. | 5 Short Plural | 4.5 to | 5 Copula |
| 6 Poss. | 6 Art. | 6 Past Reg. | 6 Poss. | 6 Past Reg. | 6 Past Aux. | 6 Aux. |
| 7 Uncontr. Cop. | 7 Poss. | 7 Past Irreg. | 7 Contr. Aux. | 7 Sing. | 7 on | 7 Poss. |
| 8 Art. | 8.5 3 rd Pers. Irreg. | 8 Long Plural | 8 3 rd Pers. Pres. | 8 Past Irreg. | 8 Poss. | 8 Past Irreg. |
| 9 Past Reg. | 8.5 Contr. Cop. | 9 Poss. | | 9 Long Plural | 9 Past Irreg. | 9 Long Plural |
| 10 3 rd Pers. Reg. | 10.5 Contr. Cop. | 10 3 rd Pers. Sing. | | 10 Poss. | 10 Plural | 10 Past Reg. |
| 11 3 rd Pers. Irreg. | 10.5 Past Reg. | | | | 11 Art. | 11 3 rd Pers. Reg. |
| 12 Uncontr. Aux. | 12 Uncontr. Cop. | | | | 12 3 rd Pers. Reg. | |
| 13 Contr. Cop. | 13 Contr. Cop. | | | | 13 Past Reg. | |
| 14 Contr. Aux. | 14 Uncontr. Aux. | | | | 14 Gonna Aux. | |

Source: Kwon, Eun-Young (2005). The “Natural Order” of Morpheme Acquisition: A Historical Survey and Discussion of Three Putative Determinants. Teachers College, Columbia University Working Papers in TESOL & Applied Linguistics, 2005, Vol. 5, No. 1. The “Natural Order” of Morpheme Acquisition: A Historical Survey. Retrieved 21st March 2009 from <http://journals.tc-library.org/index.php/tesol/article/viewFile/112/110>

Appendix 3. Outside the Classroom Conversations

Appendix 3.1. List of Conversation Questions

1. What activities do you enjoy doing most in your spare time?
2. Where do you go to do this activity?
3. What materials or equipment do you need for this activity?
4. Describe what the equipment or material looks like.
5. Describe how the material or equipment is used.
6. When did you start doing this activity?
7. Do any of your friends or family do this activity with you?
8. When is the next time you are going to do this activity?
9. What plans do you have for this activity in your future?
10. Tell me the most interesting or funny thing to happen while you were doing this activity.

Appendix 3.1.1. Examples of Spontaneous Conversation

Conversation 1

| | |
|---------|---|
| Ian | Did you enjoy the movie? |
| Student | Yes, it was funny. |
| Ian | What was so funny about it? |
| Student | I like (PAST R) it when the girl say (3RD R) “fluffy”. She has a toy and her bed is in (PREP ON) the wall. It go (PAST IR) up on (PREP ON) a line. |
| Ian | Have you seen the second movie? |
| Student | No, I didn’t see it. |

Conversation 2

| | |
|---------|---|
| Ian | Do you have a favourite song? |
| Student | When September Ends |
| Ian | Can you play it perfectly? |
| Student | I can play the.... How I say ‘coro’? |
| Ian | Chorus |
| Student | Yes! I play the chorus perfect, but the..... The rest is difficult |
| Ian | Do you play other Green Day songs? |
| Student | Yes, American Idiot and Basket Case. I play them good. I play with my friend in my friend’s house. We (PRES PROG) going to play in the school competition. |
| Ian | What does your friend play? |
| Student | He play... (bateria) |
| Ian | Drums |
| Student | Yes, he play (3RD R) drums |

Conversation 3

| | |
|---------|---|
| Ian | What did you do at the beach? |
| Student | I swim (PAST IR) with my brother in the sea. |
| Ian | Are you good at swimming? |
| Student | Errr... yes. |
| Ian | Do you practice? |
| Student | I go all.... (How you say, Monday, Tuesday....) |
| Ian | Weekday |
| Student | Ah. Yeh, I go all the (ART) weekdays |
| Ian | Have you won any competitions or medals? |
| Student | I win (PAST IR) one race on (PREP IN) first and 2 or 3, I go (PAST IR) second. |
| Ian | Do you have any competitions in the future? |
| Student | Yes. One on (PREP IN) June. |

Appendix 3.2. Student Self Evaluation (Google Form)

1. Who started the conversation?
 - a. Me
 - b. Teacher
2. How confident did you feel at the beginning of the conversation?
 - a. Linear Scale 1-5
3. How much of your intended conversation did you talk about?
 - a. Linear Scale 1-5
4. Did your confidence change during the conversation?
 - a. It went up
 - b. It went down
 - c. It didn't change
5. Why did you not talk about everything?
 - a. I could not say it in English
 - b. I changed my ideas to match my English level
 - c. I lost my confidence
 - d. Other reason
6. If you answered other, please explain more.
 - a. Paragraph
7. Now that you have had time to think, how confident do you feel about the conversation?
 - a. Linear scale 1-5
8. What final comments would you like to make?
 - a. Paragraph

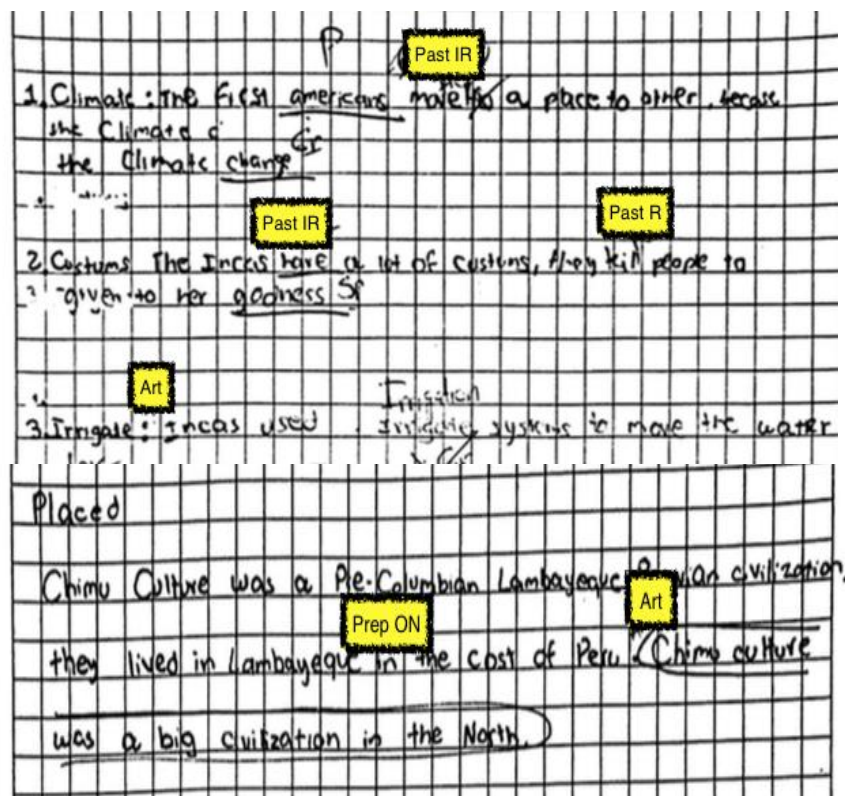
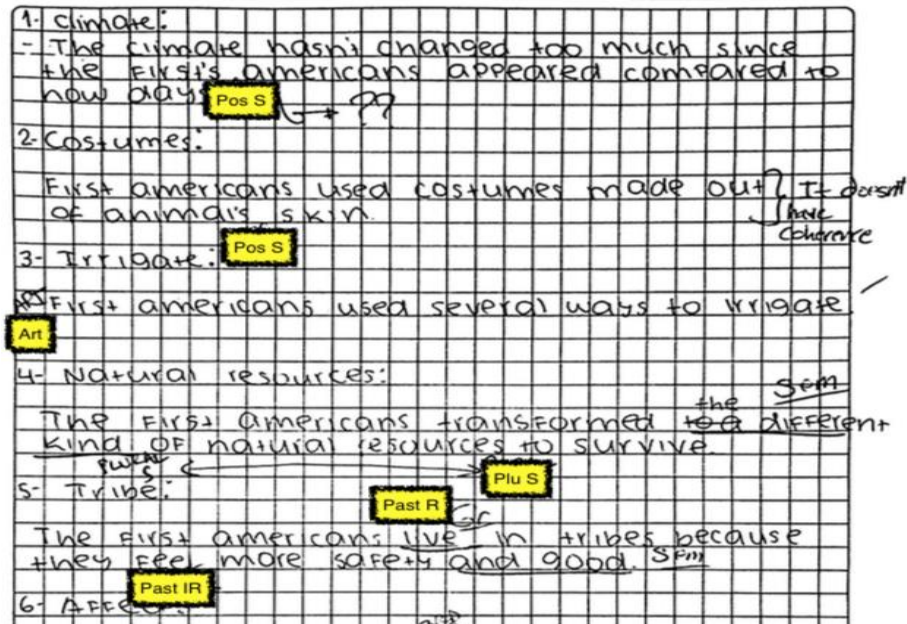
Appendix 3.2.1. Student Self Evaluation (Example Answers)

Some examples responses made by students from the Google form self-evaluation showing how they feel about their spontaneous conversations using the questions shown in Appendix 3.1

| Who started? | How confident were you at the start? | How much did you talk? | Did your confidence change? | Why did you not talk about it? | If you answered "other", please explain. | Now that you have finished, how do you feel about the experience? | What final comments would you like to make? |
|--------------|--------------------------------------|------------------------|-----------------------------|--|--|---|--|
| Me | 2 | 3 | It didn't change | I changed my ideas to match my English level | | 3 | Some ideas are easy |
| Teacher | 3 | 4 | It went up | I changed my ideas to match my English level | | 3 | I want to talk of funny class |
| Me | 5 | 4 | It didn't change | I could not say it in English | | 4 | I can talk easy to the teacher. |
| Me | 4 | 3 | It went down | I could not say it in English | | 3 | I do not speak good allways |
| Teacher | 2 | 5 | It went up | I changed my ideas to match my English level | | 4 | Is difficult to understands question |
| Me | 4 | 4 | It didn't change | I changed my ideas to match my English level | | 3 | I want to improve my english |
| Teacher | 3 | 3 | It went down | I could not say it in English | | 1 | I put scared |
| Teacher | 3 | 2 | It didn't change | I changed my ideas to match my English level | | 3 | I feel good. I can speak |
| Me | 4 | 3 | It went up | I could not say it in English | | 4 | I like to talk English |
| Me | 5 | 3 | It didn't change | I changed my ideas to match my English level | | 4 | We speak quick, but I said all the things |
| Me | 2 | 5 | It didn't change | I changed my ideas to match my English level | | 4 | I can be better in myyt s peaking |
| Teacher | 2 | 4 | It went up | I could not say it in English | | 4 | I needeed vocabulary to be more good |
| Me | 3 | 5 | It didn't change | | | 5 | I said all. I feel good when we talk |
| Teacher | 2 | 2 | It went down | I lost my confidence | | 2 | I no speak good english |
| Me | 4 | 5 | It went up | I changed my ideas to match my English level | | 4 | I must to practice to say all the things |
| Teacher | 3 | 4 | It didn't change | | | 4 | I like to speak English. It's funny |
| Teacher | 5 | 3 | It went down | I lost my confidence | | 2 | I get scred teacher. |
| Me | 4 | 3 | It didn't change | I lost my confidence | | 3 | I want to speka but don't have the vocabulry |
| Me | 3 | 4 | It went up | | | 5 | Let's speak more English. I will find you tomorrow |

Appendix 3.3. Examples of Notebook Evaluation

The images show exercises based on use of vocabulary in context with the topic of the unit with classification of morpheme mistakes



This airplane ^{Lex} ~~was~~ ^{is} ~~used~~ ^{for} ~~various~~ ^{various} reasons like ^Q
 transport people ^(acc) ~~The people can use this airplane~~
^(acc) ~~to travel.~~ ^{3rd IR} This airplane ~~have~~ ^{has} solar panels, this solar panels ^{3rd R}
 collect the solar energy and the airplane use that ^(acc)
 energy. Also this airplane ^{Gr} ~~is~~ ^{is} a autopilot. ^{Art}

Solar Airplane ^{Past IR}
 We created this Solar Airplane because we want to care ^{the world}
 the world and we know that this airplane is going
 to help the environment. This airplane is different ^{Lex} ~~of~~ ^Q
 the others and ^{Lex} ~~know~~ ^{is} going to explain why it is
 different. ^{Con Aux}

Appendix 4. Hymes' SPEAKING Model

Setting and Scene

"Setting refers to the time and place of a speech act and, in general, to the physical circumstances" (Hymes 55). The living room in the grandparents' home might be a setting for a family story.

Scene is the "psychological setting" or "cultural definition" of a scene, including characteristics such as range of formality and sense of play or seriousness (Hymes 55-56). The family story may be told at a reunion celebrating the grandparents' anniversary. At times, the family would be festive and playful; at other times, serious and commemorative.

Participants

Speaker and audience. Linguists will make distinctions within these categories; for example, the audience can be distinguished as addressees and other hearers (Hymes 54 & 56). At the family reunion, an aunt might tell a story to the young female relatives, but males, although not addressed, might also hear the narrative.

Ends

Purposes, goals, and outcomes (Hymes 56-57). The aunt may tell a story about the grandmother to entertain the audience, teach the young women, and honor the grandmother.

Act Sequence

Form and order of the event. The aunt's story might begin as a response to a toast to the grandmother. The story's plot and development would have a sequence structured by the aunt. Possibly there would be a collaborative interruption during the telling. Finally, the group might applaud the tale and move onto another subject or activity.

Key

Cues that establish the "tone, manner, or spirit" of the speech act (Hymes 57). The aunt might imitate the grandmother's voice and gestures in a playful way, or she might address the group in a serious voice emphasizing the sincerity and respect of the praise the story expresses.

Instrumentalities

Forms and styles of speech (Hymes 58-60). The aunt might speak in a casual register with many dialect features or might use a more formal register and careful grammatical "standard" forms.

Norms

Social rules governing the event and the participants' actions and reaction. In a playful story by the aunt, the norms might allow many audience interruptions and collaboration, or possibly those interruptions might be limited to participation by older females. A serious, formal story by the aunt might call for attention to her and no interruptions as norms.

Genre

The kind of speech act or event; for our course, the kind of story. The aunt might tell a character anecdote about the grandmother for entertainment, but an exemplum as moral instruction. Different disciplines develop terms for kinds of speech acts, and speech communities sometimes have their own terms for types.

Source: Dell Hymes's *SPEAKING Mnemonic*. (n.d.). Retrieved March 05, 2017, from <http://www1.appstate.edu/~mcgowant/hymes.htm>