LEXICAL ASPECT AND LEXICAL SALIENCY IN ACQUISITION OF PAST TENSE-ASPECT MORPHOLOGY AMONG IBIBIO ESL LEARNERS

BY

WILLIE UDO WILLIE

(Under the Direction of Lioba Moshi)

ABSTRACT

In the last two decades researchers in L2 acquisition research have tested a number of hypotheses that make well defined predictions about the developmental processes involved in L2 acquisition of tense-aspect morphology. Such hypotheses include the Lexical Aspect Hypothesis and the Cognitive Saliency Hypothesis. Lexical Aspect Hypothesis predicts that the lexical semantics of the verbal predicates determines the pattern of acquisition of verbal morphology at the early stages of interlanguage development (Andersen and Shirai 1995; Ayoun and Salaberry 2008; Bardovi-Harlig 2000) while the Cognitive Saliency Hypothesis predicts that the perceptual saliency of the verbal predicates determines the pattern of acquisition of verbal morphology (Salaberry 2000; Hawkins and Lizska 2003). Our aim was to test the joint effects of these two hypotheses in the interlanguage of Ibibio learners of English as a second language (ESL). Ibibio is a language spoken in the southeastern part of Nigeria by about five million speakers. We argue that two distinct but related cognitive processes are involved in the development of inflectional endings in a second language: the lexical-based learning which is operative at the lower levels of proficiency and the rule-based learning which is operative at the higher levels of proficiency. We elicited written narratives from 171 participants organized into six groups sampled from the primary schools, the secondary schools and the universities using three sets of picture stories

with each set for each level of education. The participants were asked to narrate the stories depicted in the pictures stories. The results of the data analyses showed that lexical aspect had highly significant effects on acquisition of the past tense-aspect morphology with a chi-square statistics of ($x2$ = 196.92, df = 6, N = 1664, p = <.0001) indicating a strong dependency of acquisition of the past tense morphology on lexical aspect. Also, there was significant effects of lexical saliency on acquisition of the past tense with a chi-square statistics of ($x2$ = 23.54, df = 2, N = 1664, p = <.0001) indicating a strong dependency of acquisition of the past tense on lexical saliency. However, the effect of lexical aspect was more prominent among the learners at the higher levels of proficiency while the reverse was the case for the effects of lexical saliency. Positive effects of instruction and effects of L1 were also reported.

INDEX WORDS: Lexical Aspect; Viewpoint Aspect; Tense-Aspect Morphology; Aspect Hypothesis; Cognitive Saliency Hypothesis; Ibibio ESL Learners; Second Language Acquisition; Tutored Learners.

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DEDICATION

TO GOD ALMIGHTY

FOR HIS BOUNDLESS GRACE TOWARD ME AND MY FAMILY.

And

To my children Aniekan Brian Willie and Mfonisoabasi Joseph Willie

for keeping the faith with me and allowing me to derive strength from them during my studies.

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CHAPTER ONE

INTRODUCTION

1.1 Introduction

The main purpose of this study is to investigate the extent to which the expression of temporality through inflectional morphology by second language learners is determined or influenced by lexical semantics and or lexical saliency of the verbs. Such investigation is situated at the interface between syntax and semantics as it concerns second language acquisition of tense-aspect morphology by ESL learners who are speakers of Ibibio; a Lower Cross language spoken in southeastern part of Nigeria. To achieve this purpose, we discuss the following preliminary issues in this chapter: the research background, a statement of research problem, a discussion of the major objectives of the study, the significance of the study, the research questions and the proposed ways that the study will address the questions. Also necessary in this chapter are background issues on Ibibio[1] people and their language and a discussion of the aspects of linguistic time[2] in this language including the tense-aspect system. Also important is a discussion of some aspects of the English language as it is domesticated in Nigerian context resulting in the Standard Nigerian English; the variety of English that is taught in schools and used in the research area; the type that participants in this study are exposed to. Finally, this chapter will include a discussion of the general organization of the study.

[1] Ibibio is the name of a people and language spoken in southeastern Nigeria (Akwa Ibom State) by about 5 million people. Ibibio people who learn English as a second language will be referred to as Ibibio ESL learners and this group constitutes the research subject in this study.

[2] This term has been used by other researchers including Ayoun and Salaberry 2008 and it means the combination of tense, grammatical aspect and lexical aspect in and language.

1.2 Research Background

A major challenge confronting all language learners, including learners in first language acquisition, second language acquisition and foreign language acquisition situations, is the discovery of the link between form and function in language (though such discovery is always intuitive) (Weist 2002 etc.). This challenge seems to be general to all learners though specific manifestations of the problem may differ according to the specific learning conditions of the learners, the age of the learners, the L1-L2 combination of the learners, the level of proficiency, the amount of instructions and contents of the instructional material to which the learners are exposed among other factors. The Ibibio learners of English as a second language (ESL) in a classroom situation also face this challenge but in unique ways based on the peculiarities of their learning condition like the L1-L2 combination and the other factors mentioned above. One of the concerns of this study is to discover, describe and explain how Ibibio learners of ESL go about the process of uncovering the link between morphological forms and the functional concept of temporality[3].

The relationship between form and function has been the concern of linguists at all levels and from all persuasions since the early days of Saussure and his colleagues. That is, linguists working at all levels of linguistic analysis and using all models of analysis have been confronted by the need to describe and explain this relationship. In the past two decades the relationship between form and function as it concerns L2 acquisition of temporal-aspectual features has been studied in several ways and two major strands of studies have emerged from these studies. One of the strands has its focus on the morphological elements or markings that L2 learners employ

[3] I will use the term "temporality" in synonymy with the term "time reference" which is the embodiment of all the devices that learners use to show the relationship between the situation time and the moment of speech or speech time. This is different from "Tense" which I will use to refer to the actual morphological markings on verbs to signal the relationship between situation time and speech time.

in their attempt to acquire temporal distinctions in their L2 (form-oriented approach or form-to-function studies). This approach identifies a form in the interlanguage and traces its distribution thereby determining its function in the interlanguage system (Long & Sato 1984, Sato 1990, Berretta 1995, etc.). The other strand of research is the concept-oriented approach which examines the range of linguistic devices used by learners to encode temporality in their interlanguage. This approach attempts to answer such questions as how do learners express temporality at a given stage of their acquisition process, how does temporal reference change over time (i.e. what developmental patterns emerge over the span of the acquisition process), and what are the explanatory factors that can account for the development from one stage to another up till when the target-like usage is acquired. The findings show that first the learner uses the pragmatic means to express temporality. This is followed by the lexical means and finally the learner can use the morphological means (von Stutterheim & Klein 1987, Dietrich et al. 1995). The form-to-function approach has various sub-strands of studies based on what the analyst considers to be the trigger element for L2 learners. Is it the lexical semantics of the verbs (Aspect Hypothesis; Ayuon & Salaberry 2008, Andersen 1986, 1991, 1994, Andersen & Shirai 1994, Housen 2002, Collins 2002, Bardovi-Harlig 1992a, 1994, 2000)? Or is it the perceptual saliency of the verbal morphology (Cognitive Saliency Hypothesis; Hawkins & Lizska 2003, Klein et al. 1995, Rohde 2002, Wolfram 1985)? Or is it the discourse features of the verbs (Discourse Hypothesis; Flashner 1989, Dry 1981, 1983, 1992; Reinhart 1984, Labov 1972, Hopper & Thompson (1980)? This study uses the cognitive assumptions enshrined in Aspect Hypothesis (henceforth AH) in conjunction with Cognitive Saliency Hypothesis (henceforth CSH), all of them sub-strands of form-oriented studies, to attempt an empirical analysis of the second language production data collected from Ibibio ESL learners in the classroom situations. This

appears, to the best of my knowledge, to be the first time that AH in conjunction with CSH has ever been applied in the analysis of L2 production data from ESL learners with African L1. This warrants the statement of the research problem in the following section.

1.3 Statement of the Research Problem

All approaches to the study of L2 acquisition of tense-aspect morphology seek to capture, analyze and explain the commonalities that can be ascribed to either the L2 learners themselves or the process of L2 tense-aspect acquisition. For example, studies using the concept-oriented approach (Bardovi-Harlig 2000, 1994, 1992c; Klein 1995; Salsbury 1997 etc.) seek to explicate the common pathways that all L2 learners must follow in the course of their acquisition of temporality. These pathways include the pragmatic means, the lexical means and the morphological means as stated earlier. Studies following form-oriented approach using the AH and CSH sub-strands (Ayoun and Salaberry 2008; Salaberry 2000; Shirai 2007, Andersen 1991) seek to explicate the universal effects of lexical aspectual classes and/or the lexical saliency of the verbs on the pattern of acquisition of tense-aspect verbal morphology. These effects are assumed to be independent of the differences in L1 background of the L2 learners and this assumption will be tested with the production data in subsequent chapters.

However, this nagging need to capture and explain the commonalities or the universals cannot evolve into empirically supported and generally accepted theoretical generalizations if we only concentrate efforts on the study of acquisition of European languages by Europeans and other learners whose L1 and L2 may share certain degree of linguistic similarities. We need to study the pattern of acquisition of European languages (including English) by speakers of African

languages and other languages which are typologically[4] different from European languages and Asian languages (Upor 2009). Although such studies have the potential to strengthen generalizability of research results, they have been scanty and are non-existent in some cases. Also, the need to build strong theoretical bases in all areas of SLA research, including research into acquisition of tense-aspect morphology, is ever increasing and this calls for expansion of the research tentacles to cover all language typologies. All this necessitates this study on the effects of lexical aspect and/or lexical saliency on acquisition of past tense-aspect morphology among Ibibio ESL learners with major objectives stated in the following section.

1.4 Objectives of the Study

The major objective of this study is to analyze the written narratives of Ibibio learners of ESL in order to investigate the general pattern of acquisition of tense-aspect morphology. Specific objectives include:

- To describe the general pattern of distribution of tense-aspect morphology among Ibibio ESL learners.
- To describe the pattern of distribution of the past tense-aspect morphology among Ibibio ESL learners vis-à-vis the predictions of the AH and CSH.
- To provide an account of other factors like the differences in levels of proficiency, the effects of instruction and the effects of the L1 that might affect the acquisition and distribution of the past tense-aspect morphology among Ibibio ESL learners.

[4] There are certain structural (pertaining to linguistics structures) and conceptual features that most African languages share that are not common among European languages. Such features as Serial Verb Construction, Reduplication, etc. that create unique verbal morphology in these languages can have direct or indirect effects on how ESL learners with African language L1 acquire English morphology in relation to tense-aspect. The study of these differences, in my opinion, has the potential to confirm or refute any SLA theories in unique ways.

The achievement of these objectives will enhance comparison of research results from studies with L2 learners across typologically diverse L1 leading to theoretical generalizations with regards to the tenets of the aspect hypothesis and the cognitive saliency hypothesis.

1.5 Significance of the Study

All communicative efforts by both learners and native speakers in a language are affected either positively or negatively by the way temporality is expressed in speech since all utterances are produced in the contexts of time and they confer time reference. An adequate knowledge of the tense-aspect morphology in a language is therefore necessary in the overall effort to acquire a second language and no doubt aids effective communication in the L2. This fact resonates with Weist (2002: 21) who highlights a number of reasons why investigation of tense-aspect is necessary. These are: (1) It shows how the early phase of temporal reference is acquired, (2) It is relevant to the question of how morphological information is processed, (3) It reveals elements of the emergence of verb-argument structure, (4) It provides insights into the learners' tacit knowledge of syntactic structure, and (5) It has comparative value for research on language acquisition.

On the theoretical level, this study will contribute to building sound theoretical and practical knowledge of how learners acquire aspects of morpho-syntax of their L2. More importantly, it has the potential to provide additional evidence in support of the universality of the AH by showing that the functional aspect of the verbal element is a more important determinant in the acquisition of the past tense-aspect morphology if the predictions of the AH are supported. On the other hand, it also has the potential to support the universality of the CSH by showing that the form of the verbal element is a more important determinant in the acquisition of the past

tense-aspect morphology if the predictions of the CSH are supported. This will help researchers to make more informed decisions on what aspects to place more emphasis on. The curriculum designers can decide on whether to increase aspects of form or aspects of function in their curriculum and the language teachers can decide on the selection of the teaching material.

Furthermore, this study will contribute to deeper understanding of the Ibibio ESL learners in their effort in the acquisition and usage of the language and will provide insight into how important issues concerning acquisition of tense-aspect morphology might be addressed. And more importantly, this study will fill the gap created by lack of empirical studies on this particular topic in the state in particular and the country in general and provide a cross-sectional representation of what the learners do at various stages of acquisition of the tense-aspect morphology in English. All this will be achievable as this study will attempt to find answers to the following research questions.

1.6 Research Questions

Following the statement of the research problem, the research objectives and the significance of the research, this study will attempt to answer the following questions in the following ways:

i. What is the pattern of acquisition of the past tense-aspect morphology among Ibibio ESL learners?

Attempts at answering this question will be made by providing quantitative analyses of the production data to uncover what learners do with respect to the past tense-aspect morphemes.

ii. How is the past tense-aspect morphemes distributed in the interlanguage of Ibibio ESL learners vis-à-vis the predictions of the AH and the CSH?

Attempts at answering this question will be made by comparing the observed pattern of distribution of the tense-aspect morphemes in the production data from Ibibio ESL learners with the predictions of the AH and the CSH and with similar or divergent results from other studies in the literature.

iii. What is the nature of the interaction between the predictions of these two hypotheses?

Attempts at answering this question will be made by providing quantitative evidence that has the potential to show whether the effects of the lexical aspectual class or the effects of lexical saliency of the verbs is more significant.

iv. What are the possible cross-linguistic effects that might be peculiar to this group of ESL learners which might be explainable in terms of the conceptual and structural differences between the learners' L1 and L2?

Attempts at answering this question will be made by providing qualitative analyses of the production data. This has the potential to show whether there are structures that might be attributed to L1 transfer based on what we know from the literature about the temporal systems of both the L1 and the L2.

v. What are the effects of instruction on acquisition and distribution of the past tense-aspect morphology in the interlanguage of Ibibio ESL learners?

An attempt to answer this question will be made by examining the English language course contents (syllabus) used in schools to see what has been covered in the classroom at each

academic level in relation to tense-aspect markings and checking the production data to observe the learners' response to what has been covered at each academic level.

vi. What are the effects of the differences in proficiency levels on acquisition and distribution of the past tense-aspect morphology in the interlanguage of Ibibio ESL learners?

Answers to this question will be achieved by comparing the production data of learners at various academic levels to identify the patterns of the past tense-aspect acquisition and distribution that might be peculiar to each level occasioned by the differences in the amount of time spent on the study of the English language.

1.7 Background on the Ibibio People and Language

The Ibibio people occupy a geo-political entity called Akwa Ibom State of Nigeria located in the south-east corner of Nigeria. The history of the origin of the Ibibio people is controversial (Urua 2000). Some historians have postulated a Cameroon origin (Abasiattai, 1987 and Noah 1997; cited in Urua 2000). Others like Udo (1989; cited in Urua 2000) has a different position which is that the Ibibio people originated from Central Benue Valley, the central dispersal area of all Bantus. According to this position, the Ibibio people migrated from Central Benue Valley and settled first at Ibom, now in Aruchokwu. But due to constant interethnic conflicts with the Igbos the Ibibio people moved to Ikono from where they migrated out and dispersed to various parts of Akwa Ibom and Cross River States. However, according to Urua (2000:1) "a recent study combining linguistic and historical evidence from oral tradition seems to suggest that the Cameroon homeland theory is not very plausible. They (Connell and Maison 1994) have suggested a homeland north, probably up the Cross River".

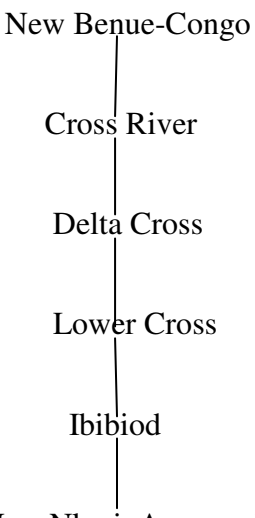
The Ibibio speaking people constitute the fourth largest ethnic group in Nigeria after the three major ones: Hausa, Igbo and Yoruba (Essien 1990: ix). They number about four million speakers who speak Ibibio as their mother tongue and occupy much of Akwa Ibom State-fourteen of the thirty one local government areas of the state according to the 2006 Nigerian population census[5]. This constitutes a density of about 466 people per square kilometer and according to this figures, the Ibibio people constitutes about 3% of the country's population of about 140 million people. Also about 60% of the population of Ibibio speakers is agrarian and 25% is involved in commercial oriented endeavors while the remaining 15% is in public service.

The Ibibio language has some variants or dialects with various degrees of mutual intelligibility with the standard Ibibio or mainland Ibibio. These include what Essien (1990) calls "small languages" like Ito, Itu Mbon Uso, Ikwere, Nkari and Ukwa. The speakers of these "small languages" claim that ethnically they are Ibibio and their languages are mutually intelligible to one another though there is a clear unilateral intelligibility between the speakers of these varieties and the speakers of the Standard Ibibio; a situation where they can understand standard Ibibio but the speakers of standard Ibibio hardly understand them. On the other side of the coin are the other groups of Ibibio speakers like Oron, Okobo and Anaang who, though clearly speaking variants of Ibibio, claim that ethnically they are not Ibibio. All of these groups together with other groups of people like Ibeno and Obolo (or Andoni also spoken in Rivers State of Nigeria) belong to one subgroup of language family known as the Lower Cross (Greenberg 1963 cited in Essien 1990) and Essien (1990:ix) refers to them as Ibibiod. Variants of Ibibio are also

[5] The results of the 2006 Nigerian national population census which put the Nigerian population at about 140 million people is highly controversial and has raised a lot of discontent among Nigerians both at home and abroad. For example Chidi Anyaeche (2007) observed that "the officially released 2006 Nigeria census figures…should be consigned to a dustbin. It should be trashed for that is where that charade, a monumental waste of taxpayers' funds belong…." http://nigeriaworld.com/articles/2007/jan/112.html

spoken in some parts of Cross River State like Calabar, Odukpani and Akamkpa Lacal Government Areas of the state.

Genetically, Ibibio is a member of the Lower Cross sub-family of Niger-Congo family of languages; one of the largest language families in Africa according to Greenberg's (1963) classification of African languages cited in Essien (1990) and Urua (2000). In a more recent classification, Williamson (1989 cited in Urua 2000) has placed Ibibio in the Lower Cross group of the (New) Benue-Congo language family. A mini-family tree of the Lower Cross languages is as in figure 1.1 adopted from Urua (2000:3). Note that participants in this study are drawn from among the speakers of the Standard Ibibio and its variants.



Iko, Ibeno, Ibuoro, Itu Mbon Uso, Nkari, Annang, Efik, Ibibio, Ukwa, Ekit, Oro, Okobo,

Ebughu, Ilue, Ewang-Uda, Ekit, Etebi, Mbo (Efai)

Fig 1.1 A Classification of the Lower Cross Languages

1.8 The Ibibio Linguistic Time

The concept of linguistic time generally entails the temporal phenomena of tense and time reference, viewpoint aspect and lexical aspect and the interaction among these temporal concepts in any language under consideration (Ayoun and Salaberry 2008). Of interest here are tense and temporal reference, viewpoint aspect and lexical aspect and the interaction of these concepts in the Ibibio language. The discussion of these concepts in Ibibio, the learners' L1 is necessary because, though comparative analysis of learners' L1 and L2 has been described as simplistic by some researchers (Salaberry 2000), it has the potential to inform us of the underlying structural and conceptual difference between the learners' L1 and L2 that might explain specific types of cross-linguistics effects.

1.8.1 Tense System in Ibibio

Some scholars have studied the Ibibio tense system and have arrived at the basic fact that Ibibio is a language that grammaticalizes time reference or temporal location. Situations in Ibibio are located in time in relation to the moment of speech. These temporal locations are morphologically indicated with explicit morphemes (prefixes in all cases) in any sentence of the language. Essien (1983c, 1986, 1990) analyzed Ibibio tense system as "corresponding to the classical tripartite system of Past, Present, and Future...and there are affixes corresponding to each of these tenses" (Essien 1990:78). Furthermore Essien (1990:79) analyzed the tense system as comprising two allomorphs for each of the three tenses. These allomorphs are "syntactically determined by certain grammatical (and sometimes semantic) categories in the sentence since the occurrence of one or the other of the allomorphs is determined by such categories". A tree diagram of the Ibibio tense system according to Essien (1990:78) is in figure 1.2.

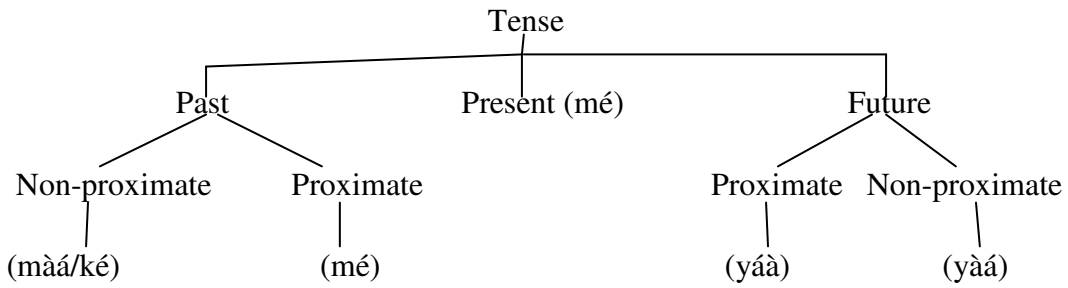


Fig 1.2: Tense System of Ibibio According to Essien (1990)

As is evident in the above tree, the Past has the proximate and the non-proximate Past. The non-proximate past has two allomorphs (*màá/ké*) whose usage is determined by the syntactic and discursive factors implicated in the sentence. The morpheme (*màá*) is used in simple declarative sentences while (*ké*) is used in focus constructions or in what Jorge and Oliveira (2009) call syntax/discourse interface and in negative sentences about the past. The Present is marked by (*mé*) and according to Essien's analysis it is restricted to only Stative situation types. In the non-stative situation types (processes and events), Essien (1990) proposes a zero morpheme that would serve as an allomorph of (*mé*) the overt marker. The Future also has the proximate (*yáà*) and the non-proximate (*yàá*) allomorphs in addition to the syntactically and discursively conditioned allomorph of the non-proximate past (*dí*) which is used in negative sentences and sentences with focused elements and the future time reference.

Another important work on Ibibio tense system is Oliveira (2004, 2005) and Jorge and Oliveira (2009). According to Jorge and Oliveira (2009:3) the "tense category in Ibibio is divided into allomorphs types (I/II), related, or not, to discourse categories". A tree diagram of the tense system of Ibibio according to Jorge & Oliveira is in figure 1.3 below.

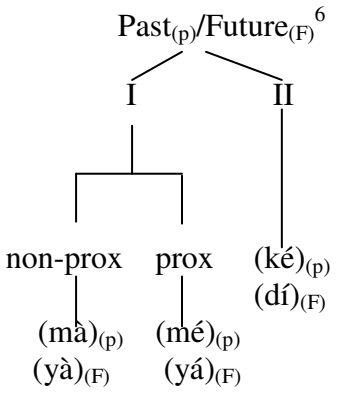


Fig1.3: Tense System of Ibibio According to Jorge & Oliveira (2009)

The authors analyze the Ibibio tense system as having a bipartite temporal location of the Past and the Future. The Past and the Future tenses type (I) corresponds to Essien's proximate and non-proximate Past and Future while type (II) includes Essien's syntactically and discursively conditioned allomorphs (*dí* and *ké*) that mark what Jorge & Oliveira calls syntax-discursive interface. As is evident from the tree in figure 1.3, Jorge & Oliveira's analysis does not include the Present tense morpheme. This analysis seems to be correct, at least on the conceptual ground because what Essien (1990) analyzes as the Present tense morpheme (*mé*) tends to be restricted to only the stative situation type which, in my opinion, do not refer to typical durative situations with neither initial nor final endpoints. The canonical interpretation of sentences in Ibibio that combine the morpheme (*mé*) with a stative verb is that the situation occurred sometime in the past but the effect continues into the present and it is the current relevance of the situation that is in focus. Consider the sentences in example (1) below.

1a. ḿ- mé- kpon[7]

[6] In this tree the (p) = past and (F) = future

[7] The Ibibio data in this work is in accordance with the orthography proposed for this language in Essien 1983. Ibibio is a tonal language but in this work tone will not be consistently marked unless in cases where it is needed to show a necessary contrast such as the one between the proximate and the non-proximate future tense markers (yá and yà) respectively. In such cases, high tone will be marked by the symbol / ˊ /, low tone by / ˋ /, downsteped high tone by / ! /: these are the three level tones attested in Ibibio according to Urua 2000:55. The contour tones will be marked by the symbol / ˆ / for the high-low contour and / ˇ / for the low-high contour tone according to Urua 2002:124-5).

1sS[8] PF big/fat
‘ I have become big or fat’

b. ḿ- mé yaiya
1sS PF pretty/beautiful
‘ I have become pretty/beautiful’

The sentence in (1a) shows that the situation of becoming fat is not instantaneous; it occurred in the past (Situation Time) and is still relevant at the moment of speech (Speech Time which is also the Reference Time). This is typical of perfect constructions (present perfect in this case). Smith (1997) lists attributes of perfect constructions two of which are: (1) the situation time precedes reference time; (2) the construction has a resultant stative value. The situation of becoming fat started when the participant was not fat and resulted in a state of fatness which is still relevant at speech time. Following Smith’s (1997) three-time temporal specification for all sentences[9], we present the time line for Ibibio present perfect sentences that has stative verbs in combination with the affix (*mé*) in figure 1.4. We argue that this type of sentences have present perfect interpretation as the primary interpretation.

……SitT……...RT=SpT[10]

Fig1.4: Temporal Relations in Ibibio Present Perfect Sentences

Another point of difference between our analysis of Ibibio tense and previous analysis has to do with what Essien (1990) and Oliveira (2009) call proximate Past tense marked by (*mé*). Though this morpheme may have some temporal inference, we argue that the primary conceptual interpretation of this morpheme is aspectual. It marks the current relevance of the situation though the inference is that the situation took place in the near Past. It is the same morpheme as

[8] 1sS = first person singular subject; PF = perfect aspectual marker.
[9] Smith’s temporal specification is a reformulation of Reichenbach’s 1947 and Klain’s 1993 three temporal indices.
[10] SitT = situation time or event time; RT = reference time; SpT = speech time or moment of speech.

the one described above and is used in Present Perfect sentences. So in sentences with a temporal adverbial that gives a specific situation time in the past, if (*mé*) is used there is usually a mark of current relevance of the situation talked about to the moment of speech as shown in example (2).

2a. m- me- kit okon uba'usen ami
1sS PFV see okon morning this = CR[11]
'I have seen okon this morning'

b. m- maa- kit okon uba'usen
1sS Past see okon morning
'I saw okon in the morning'

The two sentences in (2) share the basic feature of all past forms which is Anteriority but they differ subtly in that (2a) has an element in it that signals current relevance of the situation ("*ami*" meaning "*this*"; which is represented by "CR" in the gloss). This difference can further be explicated with the use of the differences in Reference Time (Reichenbach 1947, Smith 1997, Bardovi-Harlig 2000). In the indefinite past sentence (2b) the Reference Time (RT) is prior to speech time (SpT) and is simultaneous with the situation time (SitT) whereas in the Perfect sentence (2a) the RT is simultaneous with SpT but SitT is prior. The temporal relations in the two sentences can be presented in a time line as in figure (1.5a and b) respectively.

a. ……SitT……..RT = SpT

b……..SitT = RT…….SpT

Fig1.5: Temporal Relation in Ibibio So-called Proximate Past vs. Non-proximate Past

Another point of difference between our analysis and previous studies has to do with the second vowel of the markers for the non-proximate Past (màá), the proximate Future (yáà) and the non-proximate Future (yàá) according to Essien (1990:78). As is obvious, Essien assumes that the

[11] CR = current relevance of the situation

second vowel in each of these markers is a part of the tense markers. Jorge & Oliveira (2009) seem to rightly analyze the vowels as not parts of the tense markers but erroneously assumes that they are expletives as this example from their study shows.

3. Emem á mà a dʌn Uyo
   Emem 3S.SA PAST EXPL to live Uyo
   'Emem lived in Uyo' (Jorge & Oliveira 2009:4)

In our analysis, the vowels are not parts of the tense markers nor are they expletives of any kind. They are rather the repeated copies of the agreement markers according to Willie (2007; to appear). In that study we have shown that agreement markers in Ibibio repeat after every verbal head (both functional and lexical) and that where the vowels seem not to be visible they are deleted by a consistent rule of vowel hiatus. The example in 4 shows the occurrence of the third person singular agreement marker after both the past tense marker (a functional head) and the main verb.

4. Emem á mà á dʌn Uyo
   Emem 3sS[12] Past 3sS to live Uyo
   'Emem lived in Uyo'

We therefore consider the Ibibio tense system as bipartite system of temporal reference that consists of the Past tense and the Future tense as presented in the tree diagram in figure (1.6).

[12] 3sS = third person singular subject marker

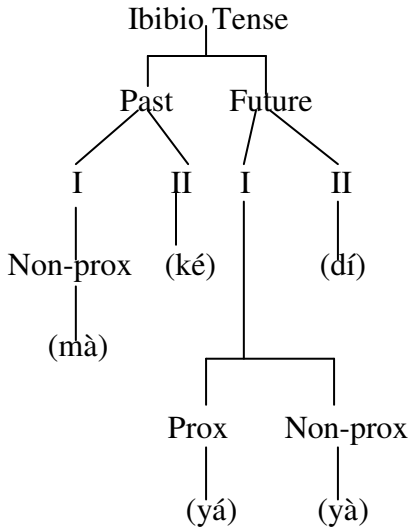


Fig1.6: A Reanalysis of Ibibio Tense System

As can be seen, what was previously analyzed as the Present tense and the proximate Past tense by Essien (1983, 1986, 1990) and as the proximate Past tense by Oliveira (2005), Jorge & Oliveira (2009) is missing in this analysis. This will be analyzed as Present Perfect and discussed under viewpoint aspect. The non-proximate past tense in Ibibio marks 'Anteriority' where the basic conceptualization is that the situation talked about happened in the remote or indefinite past. If the situation is conceived of as occurring in the proximate past, the current relevance is brought to focus by the use of the Present Perfect morpheme (*mé*). The examples in (2a&b) above repeated here as (5a&b) illustrate this contrast.

5a. m -me -kit okon uba'usen ami
1sS PFV see okon morning this
'I have seen okon this morning'

b. m- ma- a- kit okon uba'usen
1sS Past 1sS see okon morning
'I saw okon in the morning (does not specify which morning)'

The non-proximate Future tense in Ibibio marks a future time reference as well as 'Anticipation' (a modal element) where the situation talked about in the sentence is expected to occur in a non-foreseeable future time. This is in contrast with the proximate Future tense which marks future time reference and 'Anticipation' too but the situation talked about in the sentence is expected to occur in the near or foreseeable future time as these examples illustrate.

6a. e- yà- é- di
2plS[13] Fut 2plS come
'They will come (but we don't know when)'

b. e- yá- è- di
2plS Fut 2plS come
'They will come (shortly)'

The contrast between the two sentences in (6) can be captured schematically with the use of temporal relation plotted on a time line as in figure (1.7).

a. …….SpT = RT……SitT

b……..SpT = RT...SitT

Fig1.7: Temporal Relation in Ibibio Non-proximate and Proximate Future

In (fig 7a) corresponding to (6a) the SitT is subsequent to SpT which is simultaneous with RT. The longer stretch of dots on the time line means that the situation is located in a remote Future time. In (fig 7b) corresponding to (6b) the SitT is also subsequent to the SpT which is simultaneous with the RT. The shorter stretch of dots indicates that the situation is located in the near Future time not temporally remote from the moment of speech.

The Past tense and the Future tense type II are marked by the allomorphs *dí* and *ké* respectively. These allomorphs are used exclusively in focus constructions, interrogative structures and structures that combine the progressive aspectual element *sʌk* with tense morphemes. A

[13] 2plS = second person plural marker; Fut = future tense marker.

discussion of both the descriptive details and the theoretical assumptions of these allomorphs in focus constructions in Ibibio can be seen in Jorge & Oliveira (2009) though with some interpretive errors (also see Willie 2011). Instances of the use of the allomorphs *dí-/ké-* in the afore-mentioned types of constructions are in examples (7a-e).

7a. Emem a- dí-/ké- wot ebot
Emem 2sS[14] Fut/Past kill goat
'It is Emem who will kill the goat (not anyone else)/ It was Emem who killed the goat'

b. Ebot ké Emem a- dí-/ké- wot
goat Foc Emem 2sS Fut/Past kill
' It is a goat that Emem will kill/It was a goat the Emem killed (not a chicken)'

c. Emem a- dí-/ké- nam nso?
Emem 2sS Fut/Past do what
'What will Emem do?/What did Emem do'

d. Nso ke Emem a- dí-/ké- nam?
What Foc Emem 2sS Fut/Past do
'What will Emem do?/What did Emem do?'

e. Emem a- dí-/ké- sʌ̀k idia ukom
Emem 2sS Fut/Past Prog eat plantain
'Emem will be eating plantain/Emem was still eating plantain'

In these examples, (7a –b) show the use of *di-/ke-* in an in-situ focus construction and a movement focus construction with a future and a past time reference respectively. The examples in (7c-d) show the use of *di-/ke* in an in-situ Wh-construction and a movement Wh-construction with a future and a past time reference respectively. The example in (7e) shows the use of *dí-/ké-* in combination with the progressive aspectual marker *sʌ̀k* and detail discussion of the progressive and other viewpoint aspectual distinctions in Ibibio follows in the next subsection.

[14] 2sS = second person singular marker; Foc = focus marker; Prog = progressive aspect marker.

1.8.2 Viewpoint Aspect in Ibibio

The lenses of the viewpoint aspect in Ibibio are very complex and tend to capture the various internal temporal constituencies of situations in the language either in whole or in parts. We shall use the concept of "Visibility" following Smith (1997) to analyze situations in relation to what is focused on by the lenses of the various viewpoint aspects grammaticalized in Ibibio. But first, we review the previous work on aspectual distinction in Ibibio. Essien (1985b, 1990) analyzed Ibibio aspectual categories as grammaticalizing Inceptive, Completive and Habitual aspectual distinctions with the Completive aspect being divided into Perfect and Relative. The inceptive aspect in Essien's analysis is marked morphologically by (dí/yé) depending on dialectal variations. According to Essien (1990:84):

> Inceptive aspect indicates the beginning of a situation which has not held before the moment of speaking about it. Although the situation may continue indefinitely, dí/yé does not primarily refer to the continuation of a situation. This secondary meaning may be implied, however, even to the point of habituation once the situation has started.

The Habitual aspectual viewpoint, the Perfect and the Relative viewpoints in Essien's analysis are marked by (sí), (mé) and reduplication respectively and the aspectual system of Ibibio according to this analysis is as presented in figure (1.8) below.

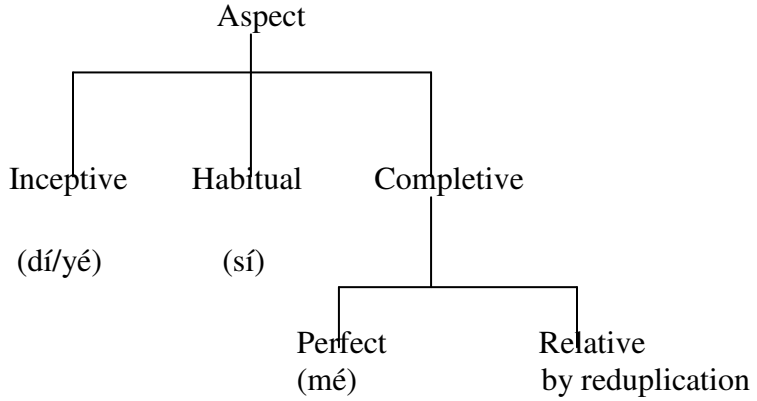


Fig1.8: Aspectual System in Ibibio according to Essien (1990:84)

In this study we take a closer look at the aspectual system of Ibibio based on the pioneering work of Essien (1985, 1990) presented above. Viewpoint aspect is grammaticalized in Ibibio language with the use of morphological and syntactic devices like prefixation, reduplication and periphrastic devices. In our analysis, Ibibio aspectual system is divided into three families of aspectual distinctions namely the Perfective, the Inceptive and the Imperfective. The Perfective is further divided into the Present Perfect and the Pluperfect. The Present Perfect corresponds to Essien's Perfect and the Pluperfect corresponds to his Relative. The Inceptive viewpoint also corresponds to Essien's Inceptive. However, our Imperfective viewpoint is subdivided into the Progressive and the Habitual viewpoint aspectual distinctions. There are descriptive motivations for this reanalysis. Essien's analysis did not include the progressive aspect as exemplified in structures like (*i- sʌk i- dia ukom: we are eating plantain).* Also, Essien's analysis assigned the habitual aspect to a separate family of aspectual distinction when empirically; it belongs to the imperfective family of aspectual distinctions.

There are empirical motivations for this rearrangement. Situations are said to have two endpoints; an initial endpoint (the beginning of the situation) and a final endpoint (the end of the situation). In addition to these endpoints situations may or may not have a middle point (Bardovi-Harlig 2000; Smith 1997). Durative situations have middle points that can be focused on by viewpoint aspects whereas punctual situations lack middle points and are usually viewed as a whole by the lenses of viewpoint aspects. Perfective viewpoints are said to be closed informationally, in the sense that they present situations as complete with both endpoints whereas Imperfective viewpoints are open informationally (Smith 1997). It follows from this difference in information structure that situations that present the Perfective viewpoint would be compatible when combined with other element/s in the sentence that assert completion while

situations that present the Imperfective viewpoint will not. On the flip side of it, situations that present the Imperfective viewpoint will be compatible with structures in the sentence that assert continuation or progression whereas situation with the Perfective viewpoint will not. With this in mind we designed a set of empirical tests that will semantically test the aspectual viewpoint classes in Ibibio and place them on their prototypical aspectual categories for further analysis.

The first test is what we refer to as the serial verb construction test (SVC) using a "super lexical" (Smith 1997; Dowty 1987) item *mà*: 'finish'. In this test, the word *mà* will be inserted at the end of sentences to test whether the viewpoint aspect expressed in the sentence is the Perfective or the Imperfective. The word asserts completion of a situation expressed in the sentence and is predicted to be compatible and produce reasonable sentences when inserted into sentences with the Perfective viewpoint but the reverse is predicted for sentences with the Imperfective viewpoint. The second test is the question test (QT) using the progressive marker *sʌk-* in a question to inquire about the continuation or progression of the situation talked about in the sentence. The question is posed after the sentence and is predicted to be felicitous when posed after sentences that express the Imperfective viewpoint but infelicitous with sentences expressing the Perfective viewpoint. But before we apply the tests let's consider a tree diagram showing a reanalysis of the Ibibio aspectual system in figure (1.9) below.

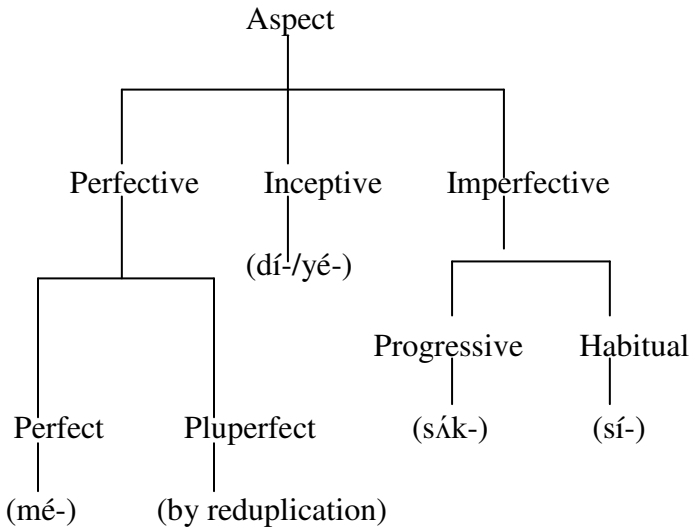


Fig1.9: A reanalysis of the Ibibio Aspectual System

Sentences with the Perfect viewpoint (marked with *mé*) are felicitous with the SVC test and so are sentences with the Pluperfect viewpoint (marked by reduplication) as the following examples show.

8a. m- me- dia ukom m- mà[15]
1sS Perf eat plantain 1sS- finish
'I have finished eating plantain'

b. Emem a- ma- da- dia ukom a- mà
Emem 3sS[16] Past Plf eat plantain 3sS- finish
'Emem had already finished eating'

In the examples above the 'super lexical' item *mà* is reasonable and felicitous in the sentence with the Perfect viewpoint (8a) and the sentence with the pluperfect viewpoint (8b) in a serial verb construction that may be paraphrased as 'eat plantain finish' asserting the completion of the situation talked about. On the contrary, this same item will not be reasonable or felicitous in

[15] In example (8a) the affix (*mé*) is the present perfect marker while the form (*mà*) is a verb meaning to finish. Also in (8b) the affix (*mà*) is a past tense marker while the form (*mà*) is a verb meaning finish.
[16] 3sS = third person singular marker; Plf = pluperfect aspect marker.

sentences with the inceptive viewpoint, the progressive viewpoint and the habitual viewpoint as the examples show below.

9a. *?Emem a- di- dia ukom a- mà (Inceptive aspect)
Emem 3sS- Incp[17] eat plantain 3sS- finish
'Emem has started to eat plantain finish'

b. *?Emem a- ke- sʌk a- dia ukom a- mà (Progressive)
Emem 3sS- Past- Prog 3sS- eat plantain 3sS finish
'Emem was eating plantain finish'

c. *?i- ma- i- si- feghe enye i- mà (Habitual)
1pS- Past- 1pS Hab dread him 3pS finish
'We used to dread him finish'

The sentences in (9a-c) are both ungrammatical and semantically infelicitous or odd because the lexical item *mà: "finish"* cannot co-occur in a sentence with the inceptive aspectual marker (di), the progressive aspectual marker (sʌk), and the habitual aspectual marker (si) in this language. We have used the star sign (*) to indicate the ungrammaticality of the sentence and the question sign to indicate the semantic oddity of the sentence. This test provides evidence that the sentences in (8a: Perfect) and (8b: Pluperfect) project a characteristic of a prototypical Perfective viewpoint (completion) and therefore belong in that category. The temporal schema for the perfect and the pluperfect viewpoints in Ibibio is as follows in figure (1.10).

I//////////F

Fig1.10: Temporal Schema for Ibibio Perfective Viewpoint

[17] Incp = inceptive aspect marker; Hab = habitual aspect marker; 1pS = first person plural subject marker; 3pS = third person plural subject marker.

In figure (1.10) the (I) represents the initial endpoint of the situation and the (F) represents the final endpoint of the situation while the slashes that span through the entire situation indicate that the situation is viewed as a whole and complete.

Now, we conduct the question test intended to provide proof that sentences in Ibibio with the Inceptive, the Progressive and the Habitual viewpoints exhibit a characteristic of a prototypical Imperfective (continuation) and therefore belong in that category. Consider the sentences in example (10) below.

10a. Emem a- di- sanga nte obon (Inceptive)
Emem 3pS- Incp- walk like king
'Emem has started to walk like a king'

a`. A sʌk a- sanga? (Question inquiring about continuation)
3pS Prog 3pS walk
'Is he still walking like a king?'

b. Emem a- ke- sʌk a- dia ukom (Progressive)
Emem 3pS Past Prog 3pS eat plantain
'Emem was eating plantain'

b`. A- ke- sʌk a- dia? (Question inquiring about continuation)
3pS Past Prog 3pS eat
'Was he still eating?'

c. Emem a- si- dia ukom (Habitual)
PN 3pS Hab eat plantain
'Emem eats plantain (as a habit)'

c`. A- sʌk a- si- dia? (Question inquiring about continuation of the habit)
3pS Prog 3pS Hab eat
'Is he still eating plantain?'

The sentences (10a-c) are compatible, and felicitous with the questions in (a`, b` and c`) which are inquiring about the continuation of the situation talked about. This shows that the information line for these sentences is open. This is a typical quality of all Imperfective viewpoints.

Appropriate answers to the questions can be either Yes or No depending on the situation. On the other hand, sentences in the examples below are not felicitous with the questions inquiring about the continuation of the situation talked about and therefore do not belong in the category of Imperfective viewpoint aspect.

11a. Emem a- ma- da- dia ukom a- mà (Pluperfect)
Emem 3sS Past Plf eat plantain 3pS finish
'Emem had finished eating plantain'

a`. ? a- ke- sʌk a- dia? (Question inquiring about continuation)
3sS Past Prog 3pS eat
'Was he still eating it?'

b. Nnyin i- mi- dia ukom i- ma (Perfect)
we 1pS Perf eat plantain 1pS finish
'We have finished eating plantain'

b`. ? i- sʌk i- dia? (Question inquiring about continuation)
1pS Prog 1pS eat
'Are we still eating it?'

The examples in (11a-b) assert the completion of the situations talked about and therefore are perfective and have closed information line. This is why they are infelicitous with the examples in (11a`-b`) which inquire about the continuation of the situation talked about in the sentences.

It is necessary at this point to add that the Ibibio imperfective viewpoint aspects are not in a one-to-one correspondence with what Smith (1997), Bardovi-Harlig (2000) etc. refers to as "general imperfective" (see chapter two for detail). General imperfective is attested in most Romance languages like French, Spanish, Italian etc. and several other languages like Russian and Mandarin Chinese. The general imperfective in these languages tend to be restricted to the marking of durative situations only in the past whereas the Ibibio inceptive, progressive and habitual aspects can be used in all tenses. Also, the inceptive aspect in Ibibio is classified as imperfective in our analysis but at the same time given a separate branch on the aspectual tree

diagram. This is because the inceptive viewpoint is not a prototypical imperfective viewpoint because it has an initial endpoint which others do not have. This conceptual difference can be captured neatly with the use of temporal schemata. The temporal schema for the inceptive aspectual viewpoint in Ibibio is as presented in figure (1.11) while the schema for both the progressive and the habitual aspectual viewpoints in Ibibio is in figure (1.12) below.

I//////……F

Fig 1.11: Temporal Schema for Ibibio Inceptive Aspect

I……..////////……..F

Fig 1.12: Temporal Schema for Ibibio Progressive and Habitual Aspects

In figure (1.11), the (I) represents the initial endpoint of the situation, the slashes (//////) show that the initial point or the beginning of the situation is in focus while the stretch of dots shows that the final endpoint (F) is not in focus by this viewpoint aspect. In figure (1.12), the slashes show that the internal or the middle portion of the situation is in focus. The stretch of dots after (I) and before (F) show that neither the initial portion nor the final portion of the situation is in focus. Studies in the literature have shown that the portions of situations focused by different aspectual viewpoints have implication for the way that the aspectual viewpoints interact with tense and lexical aspect (Bardovi-Harlig 2000; Wagner 2009). Ibibio lexical aspect is discussed in the following subsection.

1.8.3 Lexical Aspect in Ibibio

The situation types in Ibibio can be analyzed using the set of semantic features identified in the literature. These include dynamism, durativity and telicity with telicity playing an anchor role in the classification of the situation types in this language (Vendler 1967; Smith 1997, Bardovi-Harlig 1998, 2000; Andersen 1991, Andersen & Shirai 1996, Salaberry 2000 etc). Generally, this

set of semantic features lead to three pairs of situation types in languages. These include stative/dynamic, durative/punctual and telic/atelic situation types. Detailed discussion of semantic features and situation types will be presented in Chapter 2 under lexical aspect. The distinction between stative and dynamic situations is attested in the Ibibio language. Verb constellations in the language may be classified into states and events verb constellations with a consistent and unique set of linguistic properties. There are stative verb constellations in the language which may be described linguistically as obtaining or holding in a single, undifferentiated span of time but do not take time (a prototypical feature of states). Examples of statives in Ibibio include the following.

12a. Okon a- ba k' Uyo
Okon 2sS be prep Uyo
'Okon is in Uyo'

b. Okon ɔ- diɔŋɔ ikɔ-mbakara
Okon 2sS know English
'Okon knows English'

c. Okon a- nim mbʌk odo ke akpanikɔ
Okon 2sS believe story the particle truth
'Okon believes the story'

The prototypical interpretation of a state sentence in Ibibio such as the one in (12a) is that the situation obtains in an undifferentiated period of time that lacks internal structure and dynamism. For example, if *Okon* stayed in *Uyo* for two days, there is no interval within the two days that *Okon* was not in *Uyo*. The initial and final endpoints of a state are not part of the state: they are distinct situations, consisting of changes of states. The temporal schema for such sentences can be presented as in figure (1.13) below following Smith (1997).

(I)_____(F)

Fig 1.13: The Temporal Schema for States in Ibibio

In this schema the (I) indicates the initial endpoint while the (F) indicates the final endpoint. The endpoints are given in parentheses to show that they are not a part of the state. The straight line in the temporal schema indicates the entailment pattern of statives which shows that when a state holds for an interval, it holds for every sub-part of that interval (Dowty 1979).

The conceptual underpinnings of telicity are utilized in Ibibio in a unique manner. With regards to telicity assignment, verb constellations in this language cannot be neatly divided into telic versus atelic verb constellations. Compare this to the English language, for instance, where states and activities can be said to be atelic verbs while accomplishments and achievements can be said to be telic verbs. In this language verb constellations may be given a tripartite classification based on telicity. Some verb constellations may be classified as inherently atelic because their telicity orientation is fixed in the perceptual, conceptual and cognitive orientation of the speakers of the language. Verb constellations of this type include state verbs discussed above. This class of verb constellations may be given the linguistic feature [-Telic] in the Ibibio language. They are durative verbs. Other verb constellations may be classified as inherently telic because their telicity orientation is also fixed in the perceptual, conceptual and cognitive orientation of the speakers of the language. Verb constellations of this type include punctual events that have the linguistic feature [+ Telic] in the Ibibio language. They are punctual verbs and they involve a change of state which constitutes the outcome or the goal of the event. When the goal is reached, a change of state occurs and the event is complete (Garey 1957, Smith 1997). This class of verb constellations in Ibibio can be comparable to achievement verbs in the English language in Vendler (1967) terms. Examples of inherently telic and punctual verb constellations in Ibibio are as follows.

13a. Emem o- bom esio
Emem 2sS break pot
'Emem has broken the pot'

b. Okon ɔ- kɔŋ ikɔŋ
Okon 2sS cough(v) cough(n)
'Okon has coughed'

c. Edem ɔ- kpɔkkɔ okpokoro
Edem 2sS hit/knock table
'Edem has hit/knocked on the table'

The temporal schema for punctual events in Ibibio is presented in figure (1.14) below.

…….E…….

Fig 1.14: Temporal Schema for Punctual Events in Ibibio

This schema shows the single-stage-event nature of punctual events with the (E) indicating the event itself and the dots before the (E) indicate the preliminary stage of the event while the dots after the (E) indicate the resultant stage of the event.

The last class of verb constellations cannot be classified either as inherently telic or inherently atelic because their telicity orientation is not fixed in the perceptual, conceptual and cognitive orientation of the speakers of the language. Verb constellations of this type include durative events that have the linguistic feature [+/-Telic] in the Ibibio language. They are durative, non-punctual events. They are specified as [+/-Telic] because they are ambiguous as to whether they have arbitrary or natural endpoint. Examples of this class of verb constellation include the following examples in 14 and similar examples are discussed in (Dowty 1979).

14a. bɔp ufɔk
build house
'build a house/houses'

b. tem ndidia
cook meal

‘cook a meal/meals’

c. bɔk ndidia
cook meal
‘cook a meal/meals’

d. saŋa ka ufɔk-ŋwed
walk go house-book
‘walk to school’

e. saŋa k’ ufɔk-ŋwed
walk in house-book
‘walk in school’

In example (14a) the structure can either be interpreted as *build houses* (which is atelic in the English language) or *build a house* (which is telic in the English language). The same goes for the structures in (14b-c) which can be interpreted either as *cook a meal* which is telic in the English language or *cook meals* which is atelic in the English language. The examples in (14d-e) are different. In order for the verb *saŋa: walk* to be pinned down in terms of telicity, it needs the help, so to speak, of another verb in a serial verb construction which can be translated approximately as *walk- go* as in (14d) which may be conceptualized as expressing a telic meaning; a kind of derived telicity. This is comparable to the structure *walk to school* in English though they are not complete equivalents. The structure in (14e) may be conceptualized as slurring toward atelic and may be comparable to the structure *walk in school* though they are also not complete equivalents.

The idea in our analysis finds analogy in a similar analysis in Gavruseva (2002, 2003 and 2004) in his Underspecification of Aspect Hypothesis. In his analysis, Gavruseva uses telicity as a syntactic feature to classify verbs in English into three aspectual classes namely statives (state verbs) with the feature V[-Telic], punctual verbs (achievements) with the feature V[+ Telic] and the non-punctual verbs (activities and accomplishments) with the feature V[+/-Telic]. But an

important conceptual difference between the verbs in Gavruseva's non-punctual class of verb constellations and the verbs in a similar verb constellation (durative events) in our analysis is that in the English language, the telicity of structures like *walk to school* (telic) and *walk in school* (atelic) or *build a house* (telic) and *build houses* (atelic) is very clear. On the contrast, the telicity in structures like *saŋa ka ufɔk-ŋwed* (showing preference for telic meaning) and *saŋa k'ufɔk-ŋwed* (showing preference for atelic meaning) is not clear. The same can be said of the other examples in (14a-c).

This semantic peculiarity in telicity assignment in Ibibio seems to be a response to a linguistic peculiarity in relation to the unavailability of the definite and the indefinite articles and prepositional choices in the language. Thus structures like *dia sokoro* may be interpreted as either *eat an orange* (telic), *eat the orange* (telic) or *eat oranges* (atelic). This shows that the unavailability of the definite and the indefinite articles results in semantic peculiarity in telicity assignment in the language. The unavailability of prepositional choices reinforces this peculiarity as the examples in (14d-e) show. In English the choice between the prepositions *to* and *in* in the verb constellations *walk to school* and *walk in school* specifies the telicity of the two verb constellations whereas in Ibibio such choices are not available. The use of the only available preposition *ke* in the verb constellation *saŋa k'urua: walk in the market* and a serial verb construction as in *saŋa ka urua: walk go market* does not specify the telicity of the verb constellations in a clear fashion. This is partly because in a verb constellation like *saŋa ka urua*, it is difficult to tease out individual contribution of the two verbs *saŋa: walk* and *ka: go* to telicity assignment. The temporal schema for durative events in Ibibio can be presented as follows.

I…… ..$F_{[+/-Nat]}$

Fig 1.15: Temporal Schema of Durative Events in Ibibio

The dots indicate the process (durative) nature of the event and the subscript $_{[+/-Nat]}$ shows that the final endpoints of the durative events in Ibibio can either be natural or arbitrary.

Having discussed all the major components of the Ibibio linguistic time namely tense, viewpoint aspect and lexical aspect, we present a model that shows all the components in a schematic form in figure 1.16 below. Scholars like Wagner (2009), Wulf et al (2009) and Bardovi-Harlig (2000) have noted that the component elements of temporality, though they ideally may be seen as belonging to different dimensions of grammar, interact in ways that give consideration to their basic semantic meaning. Thus the past tense, for instance, is generally more likely to be expressed in conjunction with a perfect aspectual marker in the sentence since both share completion as their basic semantic meaning. The component elements in Ibibio linguistic time also interact in the same way.

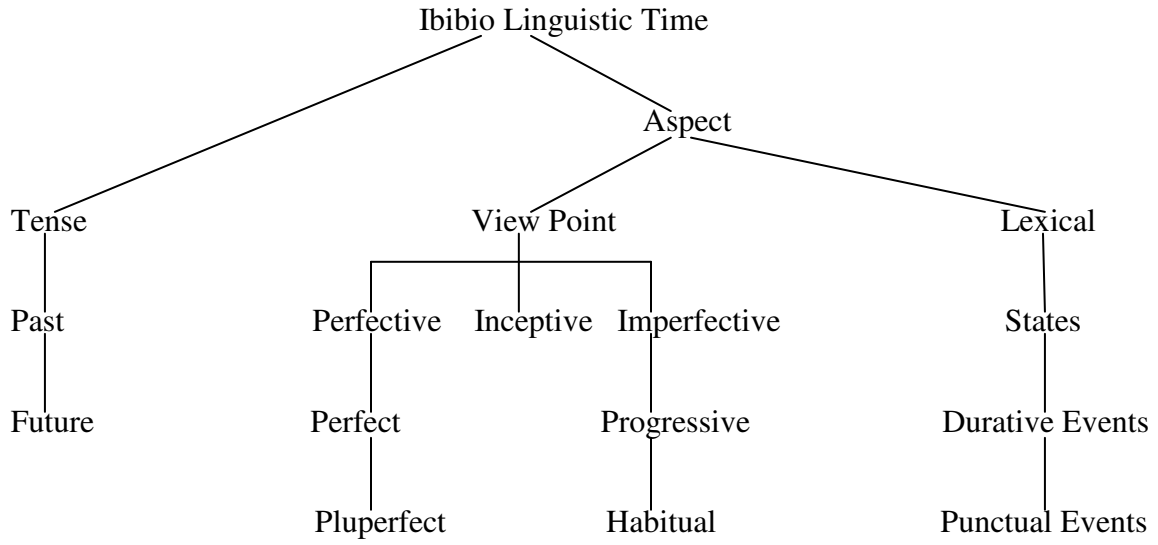


Fig 1.16: Temporal Components in Ibibio Linguistic Time

The implication of this analysis to our study is that we do not expect cross-linguistic effects in areas where the L1 and the L2 have clear structural or conceptual differences like in the marking of tense in Ibibio and English. In Ibibio, as noted earlier, tense markings are achieved through prefixation whereas in English it is achieved through suffixation and progressive marking in English is achieved through suffixation whereas it is achieved through an independent morpheme (a free morpheme) in the Ibibio language. Cross-linguistic effects are expected where the L1 and the L2 have subtle similarities or differences as in the case of the comparison between durative events in Ibibio and accomplishment verbs in the English language where there are subtleties in telicity assignment. One might expect that Ibibio ESL learners are likely to portray cross-linguistic effects in this area by either under-using or overusing accomplishment verbs in the English language as we discuss the domestication of the English language spoken in Nigeria.

1.9 Domestication of the Nigerian English.

The advent of the Nigerian national independence in 1960 marked the beginning of the end of the era when native-speaker-teachers of the English language dominated the scene of ESL teaching in the country. A new era began to gradually unfold when the responsibility of teaching the English language to Nigerian children shifted to Nigerian teachers who were themselves ESL learners. This, in my opinion, marked the beginning of the process of acculturation or nativization of the English language in Nigeria. That is, the language as taught in schools and as used for social interaction in the society began to acquire local flavors and attributes. This adaptation was mainly due to the linguistic differences between the English language and indigenous Nigerian languages as the two came in contact. The adaptation was required in order to meet the phonological, morpho-syntactic, socio-pragmatic and cultural needs of the Nigerian speakers of the English language according to Alo and Mesthrie (2008), Adegbija (2004 cited in

Alo and Mesthrie), etc. The process of domestication of the English language is not unique to the Nigerian context. According to Ubahakwe (1979:1 also cited in Alo and Mestrie 2008), the "established status of the Nigerian English is a dialect subset comparable to American, Australian, British, Canadian and Rhodesian dialects subset", and we add the Singaporean and the Indian dialects of the English language.

The extent of this adaptation of English to fit the local Nigerian contextual needs have been discussed in terms of levels of domestication by many scholars including Adegbija (2004). Adegbija identifies lexical domestication, idiomatic domestication, phonological domestication, grammatical and syntactic domestication, pragmatic and cultural domestication and semantic domestication. At the lexical level entirely new words are created to describe new experiences through several processes including coinages and neologisms as in *chewing stick*, *co-wife*, *cash madam*, *go-slow* etc. Other processes include hybridization (e.g *bukateria*), analogization (e.g *decampee, arrangee, standee*), transliteration (e.g *unam ikot*: Ibibio; *eran igbe*: Yoruba = *bush meat*), and acromymization (e.g *NITEL, NEPA*). At the idiomatic level the domestication can be in form of the modification of the verbal particle in one form or another. It could be in the form of adding, removing or substituting one English verbal and/or prepositional particle for another (e.g *off head* instead of *by heart*, *congratulate for* instead of *congratulate on*) (Adegbija 2004).

In my opinion, phonology is the area of the Nigerian English that has undergone the most domestication as a result of both negative and positive inter-linguistic effects. Amayo (1980), Akere (1980), Awonusi (1986) all cited in Alo and Mesthrie 2008) have discussed the various ways in which English in Nigeria has been phonologically domesticated. According to these sources, the vowel system is reduced, the intonation system is reshaped, there is neutralization of length distinction, and voicing of non-voice consonant endings etc.

At the syntactic level, Odumuh (1984a and b cited in Alo and Mesthrie) has observed the pluralization of non-count nouns (e.g informations, equipments etc.) and the problematic agreement between the subject and the verb in several contexts. The problem of non-marking of agreement between the subject and the verb is not peculiar to the Nigerian English speakers because it is highly developmental. To really capture and explain the phenomenon, the level of proficiency of the speakers or learners must be considered because subject-verb agreement has been observed in many studies as having the tendency to develop at later stages in both L1 and L2 acquisition (Andersen 1991). Interestingly, according to Adegbija (2004), the grammar of the educated (standard) Nigerian English (the variety taught in schools and which we are concerned with in this study) is still in conformity with the grammar of the native varieties of English to a very large extent. For example, the Ibibio speakers of the Nigerian English still mark temporal and aspectual distinctions in their English with the use of the process of suffixation using the affixes –ed, -ing etc in spite of the fact that the Ibibio language uses the process of prefixation to mark all temporal and aspectual distinctions. This is an instance where great structural differences lead to positive learning effects slowing down the process of domestication in this area of the Nigerian English.

In addition and especially as it concerns this study, Alo and Mesthrie (2008:325) remark that "there is little to be said about tense categories used by educated *Nigerian English* speakers". The meaning of this is that there are no significant differences between educated Nigerian English and the other standard Englishes like the Standard American English (SAE) and Standard British English (RP) in terms of tense-aspect morphology. However, Jowitt (1991: 116-117) notes as follows.

> Errors of inflection are common amongst V_1 and V_2 (i.e lower varieties of Nigerian English) speakers but are stigmatized by educated speakers. Such stigmatized forms include occasional use of unmarked verb forms for both present and simple past as in (1), the occasional double marking of the simple past in negatives and interrogatives as in (2) and (3). (1) *Yesterday they go to your office*; (2) *He did not went*; (3) *Did she wanted him?*

Furthermore, Alo and Mesthrie (2008) note the occasional regularization of the past endings in words like *grinded* for *ground* and *hitted* for *hit* and occasional lack of third person singular present tense marker –s. In addition, the authors note the neutralization of the distinction between stative and non-stative verbs particularly verbs of perception in the Nigerian English in structures like the following.

15a. I am **smelling** something burning (….smell….)

b. I am **hearing** you (…hear/can hear…)

c. It is **tasting** terrible (…tastes…)

A closer look at these errors shows that they are not peculiar to the speakers of the Nigerian English as SLA researchers have found similar errors in the speech production of other ESL learners who are non-Nigerian learners. First, what Alo and Mesthrie (2008) call neutralization of the distinction between statives and non-statives (dynamic verbs) may better be analyzed as overgeneration of the progressive marker *–ing* to state verbs which ideally do not take the progressive markings. This has been observed in aspectual studies like Robison (1990) and Rohde (2002). Also, the regularization of the past endings is not peculiar to the Nigerian English speakers as this has been reported in speech data of ESL learners from other parts of the world. For instance Robison (1990) studied a 30-year-old Spanish L1 speaker learner of English as a second language. The structure *"here if you want something you buyed it"* was observed in the production data of this learner. There is a clear regularization of the past tense ending in the word

buyed as used by the learner. In my opinion, all these errors are better analyzed as occasioned by developmental processes that are common to all ESL learners and not typical of the Nigerian English speakers and we expect that the production data of the Ibibio ESL learners would attest cases of regularization as well.

1.10 Organization of the Study

This study is organized into five chapters. After the foregoing introductory chapter we present Chapter 2 which is titled "Literature Review". In this chapter we lay out the theoretical foundation for this study by discussing the theoretical issues relating to tense, grammatical aspect and lexical aspect. The aspect hypothesis, the cognitive saliency hypothesis and other theoretical approaches employed by scholars in the study of acquisition and distribution of tense-aspect morphology in second language acquisition are also explored. A succinct evaluation of these theoretical approaches is also presented leading to the formulation of both the null and the research hypotheses that drive the discussion in subsequent chapters. In Chapter 3 we present a discussion of all the methodological choices made in the course of the participants' identification and recruitment. The data collection and analysis procedure are discussed in this chapter.

Chapter 4 presents the results of the data analyses tailored toward testing of the research hypotheses and finding answers to the research questions. Finally, in Chapter 5 we present a discussion of the major research findings together with the psycho-cognitive implications or bases for such findings. We conclude the study with a restatement of the major research findings, the implication of the research finding to the study of tense-aspect morphology in general and the implications of the research findings to the English language pedagogy in the research area.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter provides a theoretical foundation upon which the null hypotheses (H_o) and the research hypotheses (H_1) proposed in this study are develoed through analysis of issues pertaining to acquisition of tense-aspect morphology and temporality in general. To accomplish this, general issues in tense and aspect will be discussed. Distinctions will be drawn between concepts like tense, time and time reference, viewpoint aspect and lexical aspect. This will be discussed in general linguistic terms and in relation to the English language to enable us to juxtapose the discussion in this chapter with the discussion of similar concepts in the Ibibio language as outlined in the introductory chapter. This will enable us to draw inferences on potential cross-linguistic effects on the acquisition of tense-aspect morphology that might accrue to the structural and conceptual differences between the two languages. All this will be achieved in section 2.1.

Section 2.2 discusses the English tense-aspect system and juxtaposes its major features with the tense-aspect system of the Ibibio language discussed in the introduction. In section 2.3 we review the development of tense-aspect morphology in L1 and L2 as it is studied by linguists from various schools of thought and present a general model for approaches to the study of temporality. In section 2.4 we discuss the aspect hypothesis (AH) and lay out its major predictions to be tested with the production data collected in this study. We discuss the cognitive saliency hypothesis (CSH) and also lay out its major predictions in section 2.5. Section 2.6 presents the summaries of a few empirical works that have tested the major predictions of both the aspect hypothesis and the cognitive saliency hypothesis in both written and oral narratives. In

section 2.7 we present an evaluation of the major facts gleaned from the review of empirical studies of acquisition of tense-aspect. Section 2.8 presents the conclusion of the review with major research predictions based on the results of the review of empirical studies. The review culminates in section 2.9 with the proposition of the null hypotheses and the research hypotheses that guide the investigation in subsequent chapters.

2.2 Tense and Aspect

Tense may be defined as a deictic category that locates an event on the time line, usually with reference to the time of speaking or moment of speech (Bardovi-Harlig 2000:96 following Comrie 1976, Dalh 1985, Moshi 1994 etc). In contrast, grammatical/viewpoint aspect does not locate an event or a situation on a time line, nor does it relate the time of one situation in relation to another. Rather, it is concerned with "the internal temporal constituency of one situation; one could state the difference as one between situation-internal time (grammatical aspect) and situation-external time (tense)" (Comrie 1976:5; Bardovi-Harlig 2000: 96). In this study we shall use the term tense to refer to this deictic category that makes use of morphological devices like affixes, periphrastic operations and auxiliaries to locate the situation time in relation to the speech time or the moment of speaking about the situation. This is differentiated from the terms temporality or time reference. Temporality refers to the totality of the strategies and devices that learners employ in the process of their acquisition of the concept of time including those temporal strategies used before the emergence of tense-aspect morphology. For example, before the emergence of tense-aspect morphology, learners establish temporal reference in four ways. These include reliance on the contribution of fellow speakers (scaffolded discourse), reference inferred from a particular context (implicit reference), contrasting events, and following a chronological order in narration. (Bardovi-Harlig 2000, Dietrich et. al. 1995; Giacalone Ramat &

Banfi 1990; Meisel 1987, Trevise 1987). Learners can use a combination of these strategies in a single utterance.

Also, Declerck (2000) presents a distinction between "tense" and "time". The former is conceived of as a linguistic category whereas the latter is an extra-linguistic concept. According to this idea, tense denotes the form taken by a verb to locate the situation referred to in time. Lexical aspect is the inherent temporal semantic constituents of the verb or the predicate or the verbal constellation discussed by Smith (1997). We will discuss tense, viewpoint aspect and lexical aspect in more detail in the following subsections.

2.2.1 Tense[18]

The category of tense in a sentence locates the situation discussed in the sentence in time. For example, the sentence in (1), adopted from Smith (1997:97), informs us that the event in the proposition "Algernon ran in the park" occurred one day prior to the time of speech and for an interval of an hour.

1. Algernon ran in the park for an hour yesterday.

According to Smith (1997:97),

> The information is given by the past tense form of the main verb and the time adverbial. The tense locates the event relative to the time of speech, a truth conditional matter. It also establishes the past as the temporal standpoint (Reference point) of the sentence, a conceptual matter. The adverbial further specifies the time of the event.

Time is a single unbounded stretch of physical phenomenon and can be conceptually comparable to space. Just as an orientation point is needed to locate positions in space, so too is an

[18] The detail discussion of tense-aspect in this chapter is intended for people who do not have advanced knowledge of the literature on tense-aspect. If you are familiar with the literature on tense and aspect you can skip some material in this chapter without jeopardizing your understanding of this work.

orientation point needed to locate situations in time. In language, the basic orientation point (deictic center) is the time of speech, which is typically the present (now) Smith (1997). Time may be represented as a straight line stretching in both directions from the moment of speech, or Speech Time (SpT). On a time line, the Past is leftward of the Speech Time; it is prior to the speech time. The Future is rightward of the speech time; it is subsequent to the speech time. The Present is concurrent with the speech time in the spatial location along the time line; it is simultaneous with the speech time as shown in figure (2.1) below.

Fig 2.1 Time Line (adopted from Smith 1997)

According to the time line in figure (2.1), situations are located at moments or intervals relative to the speech time and since time has a single stretch dimension, there are relatively few possible relations between situations. Situations may occur in sequence or they may overlap, wholly or in part. According to Fillmore (1971:28), "if two situations can be said to take place at different times, it is uniquely and necessarily the case that one of them is earlier and the other is later".

Tense is a grammatical category that almost aways has to be indicated by some kind of morphological operation to the verb or the verbal predicate. This presents what Comrie (1986:9) refers to as "a grammaticalized expression of location in time". Tense or temporal location can be conveyed by the use of verbal inflections, verbal auxiliaries, and periphrastic expressions or a combination of these devices. According to Smith (1997: 98), "tense is a grammatical category, a set of verbal inflections or other verbal forms, that expresses a temporal relation to an orientation point". Speech Time is the basic orientation point in language for temporal location. Tense is often "deictic": oriented to the speech time.

Tense systems of individual languages vary considerably as each language set its temporal parameter in unique ways. Some languages have tenses that indicate the Past, the Present, and the Future (e.g Ibibio according to Essien 1990[19]). Others have a tense distinction between the Past and the non-past (e.g English); still others have a distinction between the Present and the non-present. Some languages, e.g., Mandarin Chinese, Malay, Thai, Classical Hebrew, do not have the grammatical category of tense. For these languages, temporal location is expressed directly by temporal adverbials, and indirectly by the use of aspectual viewpoints. In languages with no tense, the aspectual viewpoints have consistent temporal location interpretations. The imperfective viewpoint is used neutrally to talk about the Present, while the perfective viewpoint is used neutrally to talk about the Past (e.g Chinese and Navajo) Smith (1997).

In simple sentences the canonical location for speakers and situations is the Present; the speech time (SpT). This is the basic point of reference for temporal location. The Present is so basic that most languages of the world, like English and Ibibio, do not have consistent morphological markings for it. But in most languages any departures from the Present (now) like the Past and the Future are more likely to be marked consistently. Tense often locates a situation on time relative to this basic orientation point. In simple sentences about the Past, the Present, and the Future, situations are located according to thier relation to the speech time as in these examples.

2a. John is at home-------Present: simultaneous with SpT

……SitT, SpT=RT…….

b. I worked late last night----------Past: precedes SpT

……..SitT=RT……..SpT

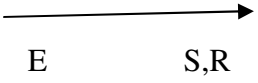
c. The Bulldogs will win the game-------Future: follows SpT

[19] But a reanalysis of Ibibio tense system presented in this work and Oliveira 2005; Jorge and Oliveira 2009 show that the language marks the contrast between the Past and the future).

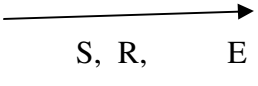
…….SpT…….SitT=RT.

Consider the temporal information contents of the examples in (2a-c). In (2a) the temporal schema shows that the situation time (SitT) and the speech time (SpT) are simultaneous. But there is a third component which is the reference time (RT). In all simple present sentences, it coincides with the speech time. The original idea of a third component in the temporal analysis came from Reichenbach (1947). In (2b) the temporal schema shows that the situation time is prior to the speech time but the reference time coincides with the situation time. The temporal schema in (2c) shows that the situation time is subsequent to the speech time but the reference time coincides with the situation time too. A cursory look at the information component analysis in these simple sentences may lead one to conclude that the third component on the temporal schemata namely the reference time is redundant as it coincides with either the speech time or the situation time in all three cases.

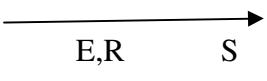
However, in the analysis of complex sentences that requires syntactic embeddings and other dependencies the need for the reference time or what Smith (1997) refers to as "a secondary anchor point" for temporal location becomes inevitable. This need is also evident in the temporal analysis of the perfect and the pluperfect sentences in many languages. This idea resonates with an analysis of the temporal components of the English present perfect, simple present, simple past and the pluperfect presented in Bardovi-Harlig (2000:178) as follows:

3a. Present Perfect:  Max has seen the President

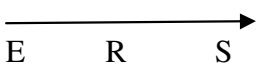
E S,R

b. Simple Present:  Max is in Rome

S, R, E

c. Simple Past:  Max saw the President

E,R S

d. Pluperfect:  Last Sunday Max had already arrived

E R S

In examples (3a-d) the (E) represents event time or situation time, the (S) represents speech time and the (R) represents reference time. Of particular interest is example (3d) where the need for the reference time in the temporal interpretation of the pluperfect sentence is made very obvious. In this example, the three required temporal components are made very independent as none of them coincide with one another. The reference time is specified by the time adverbial "last Sunday": it is the secondary anchor point for this sentence from where the situation time or event time is measured. The situation time is prior to the reference time in this sentence and both are prior to the speech time.

In the same vein Smith (1997) analyze all types of sentences in language using Reichenbachian three-time temporal component idea (Reichenbach 1947; Clark 1971; Fillmore 1971; Bardovi-Harlig 2000). Smith (1997:100) has this to say about the temporal component analysis of complex sentences:

> In complex sentences, a past or future time may serve as secondary anchor point or orientation point or deictic center for the location of a situation. The situation is located at a time preceeding, following, or simultaneous with the secondary anchor. Shifts in orientation points are signaled by syntactic embedding and other dependencies including the perfect and the pluperfect structures. In sentences with a shifted orientation point temporal expressions have the same relational value that they have in simple sentences. The past tense in English, for example, consistently indicates Anteriority either to the Speech Time or to a secondary anchor time.

The source presents an analysis of a complex sentence as in example (4) below adopted from Smith (1997:100).

4. "The Prime Minister will announce at midnight that he burned the documents"

According to this analysis, on the future reading both the events of the Prime Minister's announcement and the burning of the documents take place after the speech time (SpT). Both the main and embedded clauses of this sentence indicate times after speech time (SpT). The Past tense in the embedded clause is oriented to or anchored to the Future tense established in the main clause. The past has its usual relational value of anteriority. On the mixed reading, the announcement will take place in the future but the documents will have already been burned at speech time (SpT). The past of the embedded clause is oriented to and precedes the speech time (SpT).

This approach accounts for the temporal reference in both simple and complex sentences in a unified manner. The account analyzes all sentences in terms of three times. The basic idea (from Reichenbach (1947) and reemphasized in Smith 1997) is that three times are either needed or allowed to temporally locate the situations in all types of sentences. This allows a general analysis that embraces the following different but related points according to Smith (1997:101): " (1) two times are implicated in the temporal location of simple sentences; (2) some sentences require an additional time because they have secondary orientation points; (3) all sentences have a temporal perspective, or standpoint". The three times are the speech time (SpT), the reference time (RT), and the situation time (SitT). The speech time is the center of the system; the reference time is the temporal standpoint of a sentence and in complex sentences the reference time may function as a secondary orientation point. The situation time is the time at which the situation is located. In simple present sentences, all the three times are simultaneous. In simple Past and Future sentences, the reference time (RT) precedes or follows the speech time (SpT) and is simultaneous with the situation time (SitT).

2.2.2 Grammatical/Viewpoint Aspect

Viewpoint aspect grammaticalizes the internal temporal constituency of a situation. That is it makes visible the various phases of the situation talked about. Aspectual viewpoints function like the lenses of a camera; making objects visible to the receiver. Situations are the objects on which the viewpoint lenses are focused. Just as the camera lens is necessary to make the object available for a picture, so viewpoints are necessary to make visible a situation talked about in a sentence (Smith 1983, 1997; Comrie 1976; Leech 1971; Dahl 1985; Bardovi-Harlig 1998, 2000). The main types of aspectual viewpoint can be seen as categories of universal grammar and according to Smith (1997:61, italics is mine) "universal grammar provides a general schema for each viewpoint. These general schemata underdetermine the properties of the viewpoints; along certain dimensions they are realized differently in individual languages. The *positive* evidence provided by input from a given language enables the learner to fix the parameter for that viewpoint".

The main types of aspectual viewpoints are the Perfective, the Imperfective and what Smith 1997 refers to as the Neutral viewpoints. Languages have used these main types of aspectual viewpoints in several ways and these aspectual viewpoints are said to have consistent semantic meanings in those languages in which they appear. This is complemented by pragmatic or conversational meaning following Grice's (1975) distinction between conventional or semantic meaning and pragmatic or conversational meaning. The lenses of aspectual viewpoints focus on all or a part of a situation; what is in focus has a special status, which can be referred to as "Visibility" according to Smith (1997:62). The part of the situation that is visible is asserted. Visible information about an event is available to the hearer of a sentence for truth-conditional issues and entailments. The visible information of a sentence is conventional and cannot be

cancelled or changed. Receivers may make additional inferences; these are conversational meanings (pragmatic meanings), which can be cancelled (Smith 1997 following Grice 1975). The main semantic difference among aspectual viewpoints is in how much of a situation they make visible. The perfective viewpoint focuses on a situation in its entirety, including endpoints. The imperfective viewpoint focuses on an interval that excludes endpoints. The neutral viewpoints include the initial point and at least one stage of a situation.

In analyzing aspectual viewpoints, Smith (1997) relies on evidence from semantic tests for the meanings that are conventionally conveyed. Consider this sentence and its composite temporal schema.

5a. Mary was walking to school

b. I…/////////….F[20]

Consider the interpretation of the progressive event. The internal stage of the telic event [Mary walk to school] is visible. The claim is that it presents an open situation (i.e. it has an open interpretation). To justify this claim, Smith shows that the sentence does not entail that a complete event occurred using the technique of indirect proof. This conjoins the sentence with a clause that asserts non-completion. She then asks whether the conjunction is reasonable or contradictory. If (5a) semantically conveys the completion of the event, such a conjunction should be contradictory. But if not, the conjunction should be reasonable. Now consider the conjoined example in (6):

6. Mary was walking to school but she didn't actually get there.

[20] In this schema the I means the initiation or beginning of the situation; the F means the end or final endpoint of the situation; the slashes between the two set of dots shows that the midpoint of the situation is asserted by this viewpoint and the dot to the left and to the right show that neither the initiation nor the termination of the situation of asserted by this viewpoint.

The conjoined example in (6) is in fact reasonable. This shows that (5a) does not present a complete event: it does not mean that *Mary* actually completed her walk to school. In Smith's terms, the final endpoint of the event is not linguistically presented and two inferences can be made about the sentence in (5a). The first is the default inference about the initial endpoint of the event and the second is the inference (on pragmatic grounds) about the final endpoint of the event. The inference about the initial endpoint is semantically entailed by the material that is visible whereas the inference about a final endpoint is pragmatically based. The former cannot be over-ridden by other information that may be provided in the sentence (like the conjunction in 6 above: but….), whereas the latter can. Listeners use both types of inferences in interpreting aspectual meanings. Smith's semantic test for visible information in sentences can be seen in the perfective structures conjoined with material that assert non-completion as in (7) below:

7a. #Mary walked to school but she didn't actually get there[21]

b. #Mary walked to school and she's still walking

The impossibility of the conjunction here shows that the perfective presents a closed situation and therefore is not compatible with conjunctions that assert non-completion (7a) and continuation (7b).

Viewpoints are mostly expressed by grammatical morphemes associated with the main verb of the sentence. The morpheme may simply indicate the viewpoint. It may have lexical contents as well or indicate other grammatical categories at the same time (e.g. Chinese and Russian). Therefore in analyzing aspectual systems it is necessary to consider tense because in most languages the same grammatical devices used in marking tense are also used in marking

[21] In this study, I shall use the pound sign (#) to indicate sentences that are semantically infelicitous though they might be grammatical.

aspectual viewpoints (Essien 1990, Smith 1997, Bardovi-Harlig 2000). This is the case in the English and Ibibio languages as shown in the examples below:

8. m- ma- dia ukom
1Ss Past/Perf eat plantain
I ate plantain

9. John cough-ed

The Ibibio example in (8) shows that the same grammatical morpheme *(ma-)* used in indicating the past tense is also used to indicate perfective aspect. In example (9) the same grammatical morpheme (-ed) used to indicate the past tense is also used to indicate perfective aspect.

There are different patterns of interaction between viewpoints and situation types in language. This can be understood in terms of "Dominance": a language may or may not have a dominant viewpoint Smith (1997). Some aspectual systems are asymmetric: one viewpoint is limited and the other is not as in the English and Russian languages. In these languages, the dominant viewpoint is available for all situation types whereas the less dominant viewpoint is not. In the English language for example, the perfective aspect is the dominant viewpoint and it can appear in both stative and dynamic situation types whereas the imperfective (the progressive) is the less dominant viewpoint and is restricted to only dynamic situation types. In other languages all viewpoint choices are available to all situation types, and no viewpoint is dominant as in French. In others, the viewpoint choices are available only to non-statives so that statives are outside the viewpoint system as in Chinese and Navajo.

Sentences with the perfective viewpoint present a situation as a whole. The span of the perfective includes the initial and final endpoints of the situation: it is closed informationally. This is the basic property of the perfective and the general schema is given below following Smith (1997).

Perfective: I F
///////

Fig 2.2 General Schema for Perfective Sentences.

Sentences in the English language that have this schema and in various situation types are presented in (10) for example.

10a. John believed the story (State)

b. The boy played in the pond (Activity)

c. John built the house (Accomplishment)

d. John reached the top of the lighthouse (Achievement)

The imperfective viewpoint presents a part of a situation with no information about its endpoints and is said to be open informationally. The imperfective spans an interval that is internal to the situation. This conforms to the general principle that the span of a viewpoint coincides with all or part of the temporal schema of that situation and in this case the span coincides with only the middle part of the situation. The general schema for imperfective sentences may be presented as in figure (3) below as adopted from Smith (1997:73).

I…///////…F

Fig 2.3 General Schema for Imperfective Sentences

The two most common imperfective aspects are general imperfective and the progressive. The former focuses on intervals in all situation types while the latter applies only to non-statives in some languages. The French Imparfait (in contrast with the perfective; *passé compose*), the Spanish imperfect (in contrast with the preterite) and the Italian imperfetto (in contrast with *passato prossimo*) are examples of the general imperfective viewpoints. It is a past tense with

imperfective aspectual value and it appears in sentences of all situation types with internal stages. The following examples in French adopted from Smith 1997:73 illustrate the use of the general imperfective in that language.

11a.La mer etait calme.

The sea was^{impf} calm (Stative)

b.L'enfant pleurait

The child was crying^{impf} (Activity)

c.Ils batissaient une cabine.

They were building^{impf} a cabin (Accomplishment).

The progressive aspect focuses on the internal stages of non-stative events. According to Dahl (1985:92), the progressive tends to appear in all tenses in a language that has tense whereas the general imperfective tends to be limited to the past tense. Consider the English examples in (12) below:

12a. The boy was playing (Activity)

b. John was building a house (Accomplishment)

c. *Bill was knowing the answer (Stative)

The example in (12c) is starred because progressives are prototypically not marked on verbs that are non-dynamic such as *know*. The nuances of "Activity", "Dynamism", and "Vividness" are often associated with the progressive viewpoint and the connotation can be linked to the requirement that only non-stative events can be marked for the progressive viewpoint (Ayoun & Salaberry 2008, Smith 1997 etc.).

2.2.3 Lexical/Inherent Aspect

Grammatical aspect is conveyed morphologically whereas lexical aspect or inherent aspect is a part of the inherent semantic properties of a linguistic expression (the verb or the verb constellation) used to refer to a situation. Situations have long been classified according to their internal temporal features. Scholars starting form Aristotle have distinguished between static and dynamic verb constellations. This gives us the binary classification of situation types into states and events. Others have added the features of telicity and duration which expands the classification of situation types to a four-way distinction used in recent works (Vendler 1967; Bardovi-Harlig, 1998, 2000; Shirai 2007, Salaberry 2000, Ayuon and Salaberry 2008 etc). According to Smith (1997:17), "the features are based on human perceptual and cognitive abilities and situation types are semantic categories of language, classes of idealized situations with distinctive temporal features". A given situation type is said to be attested in a language if the verb constellation that expresses it have a consistent and unique set of linguistic properties. These properties are usually conferred in a sentence by the verb and its argument.

The three temporal features of *dynamism, telicity* and *duration* distinguish the basic situation types in language. These temporal features form three contrasting pairs of semantic features that can be used to classify situation types in language. The three pairs are Static/Dynamic, Telic/Atelic, Durative/Punctual and we discuss them one after another. 1) Static/Dynamic; this pair of semantic features bifurcates the situation types into the classes of states and events. States are static, events are dynamic. States consist of a single, undifferentiated period. According to Taylor (1977:206), "although states obtain in time they do not take time". In some languages like English an event occurs, takes place or happens while a state holds or obtains. The natural class of events includes all non-stative situations. Events are "continually subject to new input of

energy" (Comrie 1976:49). 2) Telic/Atelic; Events may be telic or atelic. Telic events have a change of state which constitutes the outcome or goal of the event. When the goal is reached, a change of state occurs and the event is complete (Smith 1997, Garey 1957). Telic events have inherent or natural endpoints. Atelic events are simply processes. They can stop at any time; they are said to terminate and have arbitrary endpoints. Languages differ in relation to telic/atelic aspectual distinction. English, French, Russian, and Chinese distinguish telic and atelic events for example. 3) Durative/Punctual; Situations can be durative or punctual. The notion of punctuality or instantaneity is an idealization as events such as *win the race* may take several milliseconds without marring its categorization as punctual. In fact some scholars consider duration as essential features of all situations (Mourelatos 1978; Dowty 1986). The classification of situation types using these three pairs of semantic features according to Smith (1997:20) is presented in table (1) below:

Table 2.1 Temporal Features of Situation Types

Situations	Static	Durative	Telic
States	[+]	[+]	[-]
Activity	[-]	[+]	[-]
Accomplishment	[-]	[+]	[+]
Semelfactive	[-]	[-]	[-]
Achievement	[-]	[-]	[+]

Scholars who are interested in investigating the effects of the lexical aspectual class of the verbal predicates on acquisition of tense-aspect morphology have used these pairs of temporal semantic features in various ways to classify verbs into lexical aspectual classes for analysis. Some have used only one pair of these features resulting in a binary categorization of verbal predicates into lexical aspectual classes (Housen 1993, 1994; Kaplan 1987; Robison 1990; Haznedar 2007 etc). For example, Robison (1990) in his study of a very low proficiency adult untutored learner of

English as a second language (ESL) made a binary classification of the verbal predicates produced by the learner into punctual and durative verbs. He found out that punctual verbs were significantly more likely to show the past tense marking than durative verbs (12% vs 5.1% use of the past in past time contexts) and that durative verbs were more likely to show the progressive marking using *-ing* than punctual verbs (20.6% vs 5.1%). This kind of binary categorization contrasts predicates in terms of a single pair of features such as static versus dynamic. This pair distinguishes states from other predicates. Punctual versus non-punctual is another pair; it distinguishes instantaneous predicates that have a single point *(e.g. break, recognize, begin to sing)* from those with duration. Telic versus atelic distinguishes predicates with endpoints *(e.g. sing a song)* from those without endpoints *(e.g. sing, walk, sleep and snore)*. This type of classification has the disadvantage of grouping dissimilar predicates together. For example the distinction based only on stativity and dynamism has the risk of dumping all dynamic predicates namely activities, accomplishments and achievement into the class dynamic events or the like.

In this study, we analyze verbal predicates produced by the participants in all research tasks into four categories using all the three pairs of temporal semantic features. The four lexical aspectual classes are States, Activities, Accomplishments and Achievements following recent literature (Salaberry 2000; Upor 2009; Shirai 2007; Ayoun and Salabery 2008; Bardovi-Harlig 1998, 2000 etc). States persist over time without change and are said to be uninterruptible. If one state ceases to obtain, then a new state begins (Binnick 1991 cited in BH 2000). Examples of states include *seem, know, need, want,* and *be*. Activities have inherent duration in that they involve a span of time, like *sleep and snore*. They have no specific endpoint, as in *I studied all week*. Examples of activities include *rain, play, walk and talk*. Achievements capture the beginning or the end of an action (Mourelatos 1981) as in *The race began* or *The game ended*, and can be

thought of as reduced to a point (Andersen 1991). Examples of achievements include *arrive, leave, notice, recognize*, *fall asleep etc*. Accomplishments have both an endpoints (like achievements) and an inherent duration (like activities). Examples of accomplishments include *build a house*, *pain a painting*, *walk to school* etc. The classes of achievement and accomplishment verbs can be grouped together as telic predicates known as "events" (Mourelatos 1981). The classes of states and activities can be grouped together as atelic predicates.

The three pairs of temporal semantic features of static/dynamic, telic/atelic and durative/punctual can be collapsed into three sets of simplified temporal semantic features with binary feature specifications as follows; [± punctual], [± telic], [± dynamic]. This is used in a simplified feature specification table for lexical aspectual classes as presented in table (2.2) from (Andersen 1991, Bardivi-Harlig 2000, Ayoun and Salaberry 2008 etc.).

Table 2.2 Semantic Features of Aspectual Categories

	States	Activities	Accomplishments	Achievements
Punctual	-	-	-	+
Telic	-	-	+	+
Dynamic	-	+	+	+

(Table 2 adapted from Ayoun and Salaberry 2008: 559 and Bardovi-Harlig, 2000:216).

The feature matrix for each of the lexical aspectual classes presented on the table can be expanded as follows:

[1]. States are specified as [-punctual], [-telic] and [-dynamic]; states involve no change of state, have no intrinsic culmination point and persist over time.

13a. John believes in ghosts

b. Mfon loves sandwitches

"Intuitively, states are homogeneous and cumulative. States… generally occur in simple present without a generic or habitual interpretation, which is impossible with other verb class" Upor (2009:16).

14a. *John is knowing the answer

b. John knows the answer

States are typically non-agentive thus they cannot occur as imperatives.

15. *know the answer

[2]. Activities are specified as [-punctual], [-telic] and [+dynamic]; they involve change and are durative with no natural endpoint.

16. John ran in the park.

[3]. Accomplishments are specified as [-punctual], [+telic] and [+dynamic]; they are durative events that move toward a terminal point.

17a. John eats an orange

b. Aniekan walked to the park

[4]. Achievements are specified as [+punctual], [+telic] and [+dynamic]; they have instantaneous change of state and natural culmination point.

18a. John broke the pot

b. John won the race

c. The president recognized the congressman.

Many diagnostic tests have been designed based on the temporal semantic features discussed in this work basically to test and identify the lexical aspectual classes of verbal predicates (Vendler 1967; Dowty 1979; Kearns 2000; Olsen 1994, 1997 all cited in Upor 2009). Most of the tests that

have been designed by scholars in recent works on acquisition of tense-aspect morphology to test and classify lexical aspectual categories in various languages are based on the work of Dowty (1979). These include Hasbun (1995), Salaberry (1999b) for Spanish; Bergstrom (1995), Salaberry (1998) for French; Shirai (1991, 1993, 1995, 1998b), Shirai and Andersen (1995) for Japanese; Bardovi-Harlig (1998), Andersen and Shirai (1996) for English. Table 2.3 presents a summary of the Dowty's (1979) tests to determine lexical aspectual classification of verbal predicates. On the table, Dowty provides various criteria by which the aspectual classes are tested. A (Yes) shows that the aspectual class is totally acceptable with that criterion. A (No) shows that it is unacceptable and (Ok) shows that it is grammatically and semantically normal while (Bad) shows that it is ungrammatical and semantically anomalous and lastly, (d.n.a) shows that the test does not apply to verbs of that class.

Table 2.3 Dowty's (1979) Tests for Lexical Aspectual Categories of Verbs

Criterion	States	Activities	Accomplishments	Achievements
1. Meets non-stative tests	No	Yes	Yes	?
2. Has habitual interpretation in simple present tense	No	Yes	Yes	Yes
3. V for an hour, spend an hour Ving	Ok	Ok	Ok	Bad
4. V in an hour, take an hour to V	Bad	Bad	Ok	Ok
5. V in an hour entails V at all time in the hour	Yes	Yes	No	d.n.a
6. X is Ving entails X has Ved	d.n.a	Yes	No	d.n.a
7. Complement of stop	Ok	Ok	Ok	Bad
8. Complement of finish	Bad	Bad	Ok	Bad
9. ambiguity with almost	No	No	Yes	No
10. X Ved in an hour entails X was Ving during that hour	d.n.a	d.n.a	Yes	No

11. Occurs with studiously, Attentively, carefully e.t.c	Bad	Ok	Ok	Bad

Though Dowty's (1979) diagnostic test collection is perhaps the most widely cited in recent works, Kearns (2000) suggests that these aspectual diagnostic should be applied with care. This caution is sequel to the fact that many researchers have classified the aspectual classes in different ways. For example, Smith (1997) include in his classification a class of semelfactives which is specified as [-static, -durative and –telic] in her feature matrix presented previously in this section. This class of verbs are said to be instantaneous and iterative as in example (19).

19a. Rose coughed (perhaps repeatedly)

b. John knocked the door

However, most researchers ignore this distinction and subsume semelfactive class under the class of achievement mainly because, in my opinion, the individual instantaneous and iterative actions could be considered as independent events. A single occasion of *coughing* or *knocking* could be considered independently and therefore the event is [+telic]. If looked at from this perspective, the feature matrices of semelfactive and achievement are identical [+punctual, +telic, + dynamic] and therefore the distinction is redundant. Also other researchers argue that the distinction between accomplishment and achievement verbs is pragmatic in nature rather than linguistic thus collapsing these two classes (Verkuyl 1993 cited in Upor 2009:18). Furthermore, there are some researchers who distinguish two classes of achievements namely achievements with associated process and purely "lucky" achievements (Upor 2009:18). For example *Smith reached the summit in six hours* involves a process of climbing and Smith only reached the summit after climbing for six hours as opposed to *John broke the pot in six hours* which intuitively does not involve a process. This shows that different individual verbs even from the same lexical

aspectual classes may behave differently with respect to a single test therefore bringing to importance Kearns' (2000) need for caution while applying the tests.

The interaction among elements of temporality namely tense, viewpoint aspect and lexical aspect can be presented in a tree diagram in what Ayoun and Salaberry (2008:558) refer to as "Linguistics Time" as in figure (2.4) below. Following this, we discuss the English tense-aspect system in the next subsection.

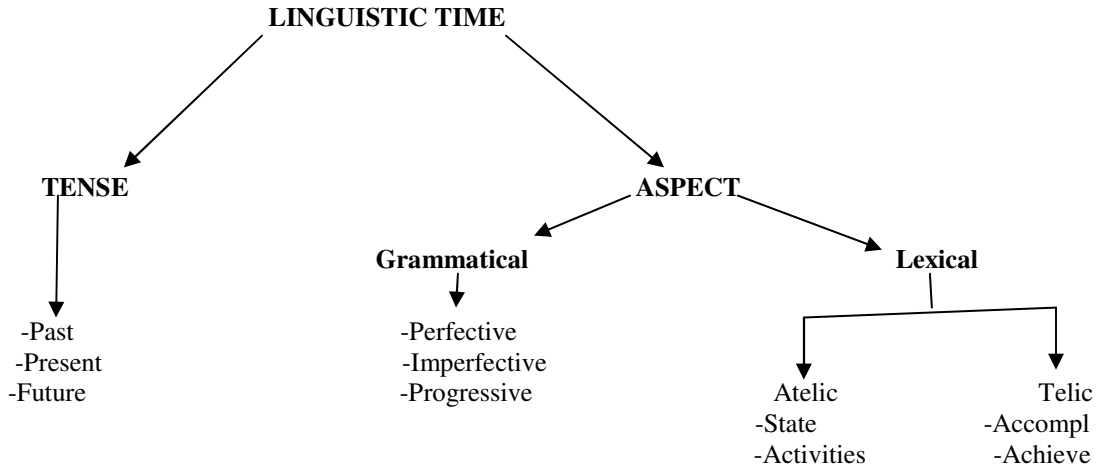


Fig 2.4 Universal Linguistic Time (adopted from Ayoun and Salaberry 2008)

2.3 The English Tense-aspect System

The English tense system may be analyzed as having a bipartite temporal distinction of the past versus the non-past because it is only the past tense that is consistently marked with morphological changes on the verb. The present and the future tenses are not consistently marked with morphological changes on the verbs. However, some grammarians like Kosur (2011) and Declerck (2006) claim that the English language has two tenses; the present and the past. Kosur (2011) presents the formula for the formation of the present and the past tenses in English as in tables 2.4 and 2.5 below.

Table 2.4 Formula for forming the Simple Present in English (adapted from Kosur 2011)[22]

	Number	
Person	**Singular**	**Plural**
First	Base form of verb	Base form of verb
Second	Base form of verb	Base form of verb
Third	Base form + (s)	Base form of verb

This table shows that the form of the present tense for all verbs except *be* and *have* are homophonous with the base form of the verb except in the third person singular where (-s) is added. In my opinion, the (-s) is not primarily marking the present tense; it is more of a grammatical person marker than a tense marker. The tendency for the present tense to remain unmarked is however not uncommon among the world's languages. Semantically, the present tense is seen as the basic tense indicating the here and now of the situation with no displacement in time either to the future or to the past and therefore can be left unmarked with no communication risks. Table (2.5) presents the formula for past tense formation.

Table 2.5 Formula for Forming the Past Tense in English (adapted from Kosur 2011)

Person	**Singular**	**Plural**
First	base + ed, base + stem change	base + ed, base + stem change
Second	base + ed, base + stem change	base + ed, base + stem change
Third	Base + ed, base + stem change	base + ed, base + stem change

[22] Kosur H. M. 2011. The English Verb System for ESL Students: Edited and published by Rebecca Scudder online at http://www.brighthub.com/education/languages/articles/39260.aspx

The table in 2.5 shows that the verbs are consistently marked for the past tense in all the grammatical persons and numbers. It also shows that the verbs are of two types; the base + -ed type of verbs (the regular or weak verbs) and the base + stem change types of verbs (the irregular or strong verbs). Table 2.6 shows examples of each type of verbs and their past tense forms in the language.

Table 2.6 Examples of Regular and Irregular Past Verbs (adapted from Upor 2009:12)

Stem	Regular Past	Stem	Irregular Past
Play	Played	Bend	Bent
Love	Loved	Keep	Kept
Cry	Cried	Bleed	Bled
Dance	Danced	Spend	Spent
Live	Lived	Feed	fed
' Kick	Kicked	Swim	Swam

The future tense is not consistently marked in the English language because the auxiliary verbs *will* and *shall* used to indicate futurity are primarily modal markers. They convey the modal element of *willingness* on the part of the speaker to be involved in the situation discussed. Thus Kosur (2011:1) claims that "despite popular belief, the English language does not have a future tense. Futurity is instead expressed through modal verbs, specifically *will* and *shall*". For example, the sentence *John will play the game* is synonymous with the sentence *John is willing to play the game* both of them primarily indicating John's willingness to participate in the game. However futurity can be made clearer in the first sentences by adding adverbs as in *John will play the game tomorrow/later/next week* etc.

The English language marks two aspectual distinctions; the perfective aspect and the progressive aspect. The progressive is a kind of imperfective aspect that operates only on non-stative verbs

but on all tenses. Thus the English language can mark the aspectual distinction between the present progressive, the past progressive and the future progressive aspects. For example *I am floating the book*, *I was floating the book* and *I will be floating the book* respectively. The perfective aspect is marked with the use of various forms of the auxiliary verb *"have"* which changes in form according to the person, tense and number specification in the sentence. This is in combination with the participle form of the main verb. A detail tabulation of the interaction among elements in tense and aspectual distinction in the English language is presented in table 2.7 below.

Table 2.7

English Tense-Aspect System (adopted from Upor 2009; original source: http://www.english-hilfen.de/en/grammar/english_tenses.htm)

Tense/Aspect	Adverbs of Frequency	Use	Form	Examples affirmative	Examples negative
Simple Present	Every day, sometimes, always, often, usually, seldom, never, first, then	Something happens repeatedly How often something happens One action follows another After the verb: to love, to hate, to think etc	infinitive He/she/it + s	I play He plays I eat She eats	I don't play He doesn't play I don't eat She doesn't eat
Present Progressive	Now At the moment	Something is happening at the time of speaking and is ongoing Future meaning: when you have already decided and arranged to do it (a fixed plan, date)	To be (am/are/is) + infinitive + -ing	I am playing He is playing I am eating She is eating	I don't play He is not playing I am not eating She is not eating
Simple Past	Last…, ago, in 1999 Yesterday	Action took place in the past, mostly connected with expression of time(no connection to present)	Regular: infinitive + -ed irregular forms	I played He played I ate She ate	I did not play He did not Play I did not eat She did not eat
Past Progressive	While	An action happens in the middle Of another action Someone was doing something at a certain time in the past but you don't know whether it was finished.	Was/were + infinitive + -ing	I was playing He was playing I was eating She was eating	I was not playing He was not playing I was not eating She was not eating
Present Perfect	Just, Yet, Never, ever, already, so far, up to Now, since, recently	You say that sth. has happened or is finished in the past but it has connection to the present (i.e. it has current relevance) An action started in the past and continues in the present	Have/has + past participle	I have played He has played I have eaten She has eaten	I have not played He has not played I have not eaten She has not eaten

Tense/Aspect	Adverbs of Frequency	Use	Form	Example affirmative	Example negative
Past Perfect	Already, just, never	Mostly when two events are related to each other : the event which had already happened is put into past perfect, the other action into simple past. The past form of the present perfect	Had + past participle	I had played He had played I had eaten She had eaten	I had not played He had not played I had not eaten She had not eaten

One of the research objectives of this study is to provide an account of the effects of other factors other than the lexical aspectual class of the verb and the lexical saliency of the verb on the acquisition and distribution of tense-aspect morphology. One of such other factors is cross-linguistic effects (L1 effects). This leads to our fourth research question namely; what are the possible cross-linguistic effects that might be peculiar to this group of ESL learners and which might be explainable in terms of the conceptual and structural differences between the learners' L1 and L2? To answer this question, we shall analyze the production data of this set of ESL learners to uncover structures that might be attributed to L1 transfer based on some level of comparison of the tense-aspect systems of the two languages. At this juncture, having analyzed the tense-aspect systems of the two languages, suffice it for us to juxtapose the interaction between elements in the two systems in the tree diagrams in figures 2.5 and 2.6. The tree diagram showing interaction of temporal elements in the Ibibio language has already been presented in the introductory chapter in figure 1.16 and is repeated here as figure 2.5 for easy of comparison. The tree diagram showing interaction of temporal elements in the English language is presented in figure 2.6 below.

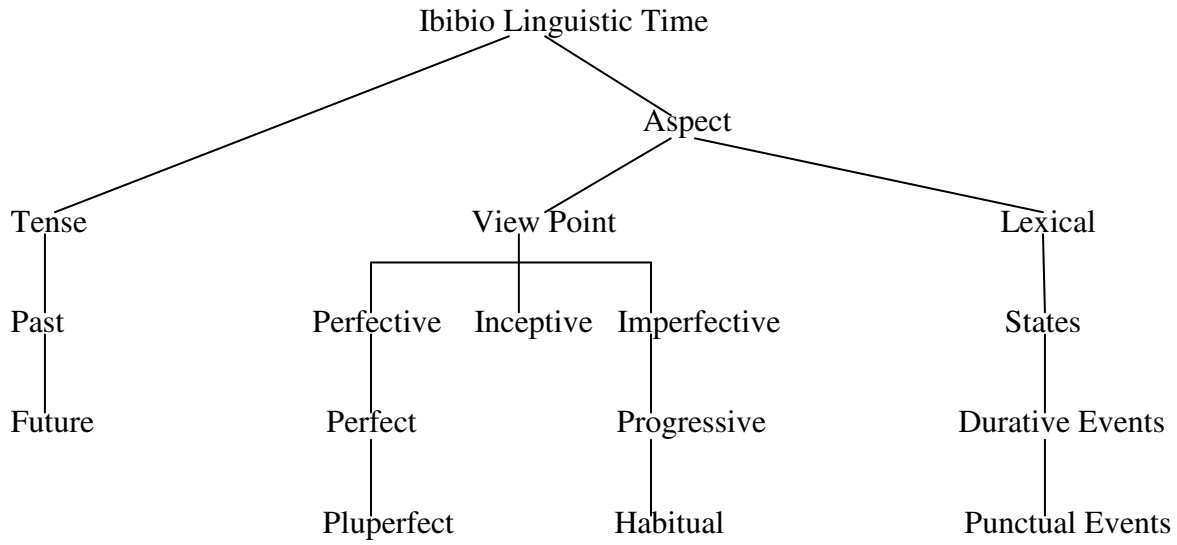


Fig 2.5 Temporal Components in Ibibio Linguistic Time

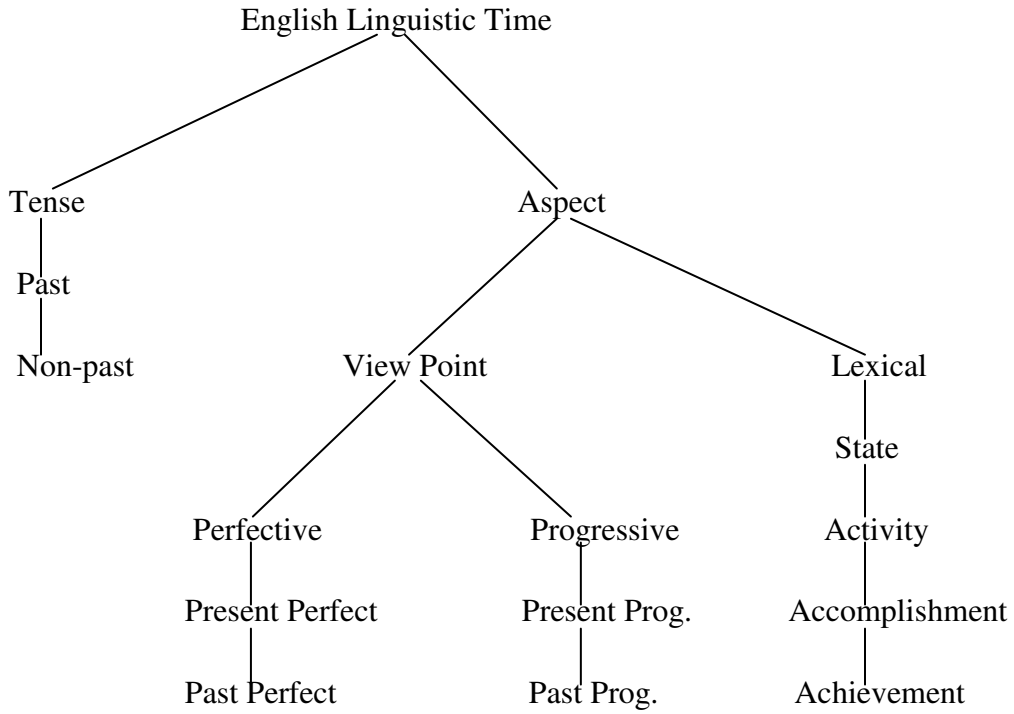


Fig 2.6 Temporal Components in English Linguistics Time

A comparison of two linguistic systems in this fashion has been described as oversimplification by some scholars. For example, Salaberry (2000a), in his study of the effects of lexical aspect

and lexical saliency of the verbs on acquisition of tense-aspect morphology among Spanish learners of English claims that a comparison of this sort is an oversimplification. The author argues that recently researchers have looked beyond comparing two linguistic systems and have considered other factors like the lexical semantics of the verbal predicates and the cognitive saliency and the frequency of the verbal endings as the determining factors in acquisition of tense-aspect morphology. However, an understanding of the structural and conceptual underpinnings of the two systems will help this study to find explanations for certain interlanguage features that lexical aspect and lexical saliency may not provide satisfactory explanations. In addition, this kind of comparison can provide a spring board for effective analysis of the effects of lexical aspect. For example, there is a noticeable conceptual difference in the lexical aspectual classification of the verbs in the English and Ibibio languages based on the peculiar way in which telicity is handled in Ibibio which do not distinguish between activity (ACT) and accomplishment (ACC) verbs. This has the potential to providing the basis for envisaging the quality of the learner's interlangauge prior to the data elicition and analysis. In this particular case one may hypothesize that the production data (interlanguage) from the Ibibio ESL learners will respond to these conceptual differences by showing cases of overuse or underuse of the English accomplishment verbs as noted earlier in the introduction. This is more likely to be the case among the learners at the lower levels of instruction. This is because the learners at these levels are likely to be challenged by the distinction between the telicity assignment on the English activity and accomplishment verbs. The following section discusses the development of tense-aspect morphology as viewed from different perspectives.

2.4 The Development of Tense-aspect Morphology

The study of the development of tense-aspect morphology in both L1 and L2 acquisition has been approached from various perspectives starting form the morpheme order studies of the 1970s and early 1980s. These studies were purely descriptive, naturalistic and non-experimental in design. The more theory orientation and experimental studies like the inquiries into the effects of the lexical aspectual class and the lexical saliency of the verbal predicates on the pattern of acquisition of tense-aspect morphology is a recent development.

Researchers who conducted morpheme order studies sought to establish the "natural sequences in acquisition of grammatical morphemes" (Brown 1973; de Villiers and de Villiers 1973 etc.). Such grammatical morphemes included the verbal morphology for marking tense-aspect distinctions like the past tense marker (-ed), the progressive marker (-ing), irregular past verbs, and the third person singular marker (-s). They also included the plural markers, the possessive markers, prepositions, articles, auxiliaries and the copula. However, the tense-aspect morphemes included in these studies were not studied on their own right as elements that coordinate form-function relationships in the linguistic systems. They were studied in isolation severed, so to speak, from their functional implication in the language and only considered as parts of the set of grammatical morphemes. However, a few early studies separated verbal morphology from others and found a common acquisition sequence for both adults and children namely the -ing, followed by the irregular past before third person singular marker –s (Bailey et al. 1974; Duley & Burt 1974; Larsen-Freeman 1975). Morpheme order studies set criteria that learners must meet in order to be considered to have acquired the morpheme under consideration. The criteria was fixed at 80% or 90% appropriate use of the morphemes in obligatory contexts.

The chief flaw of this approach lays in its focus on the end-product or end-point of acquisition (Bardovi-Harlig 2000; Andersen 1978; Hatch & Wagner-Gough 1975). In fact, Dittmar (1981:146 cited in Bardovi-Harlig 2000:5) observed that "the criterion approach (used in the morpheme order studies) treats a feature of acquisition as if the morpheme and its meaning were indissolubly wedded; or at least, show no interest in their form or meaning until they reach 80% or 90% appropriate use". This places focus on the final stages of acquisition ignoring the more important aspect; the developmental process of acquisition. According to (Bardovi-Harlig 2000:5), "from the point of view of understanding the emerging temporal system, studies that focus on high rates of both accuracy (well-formedness) and appropriate use of tense-aspect morphology focus on the endpoint of acquisition and not the arguably more interesting process of acquisition". This plays down on the developmental history or the process of acquisition.

Such a fundamental flaws could not go unnoticed and researchers from different theoretical standpoints have responded to it in different ways. Researchers who study first and second language acquisition of tense-aspect from the Chomskian's universal grammar (UG) perspective (principles and parameter approach in particular) have responded to these flaws in an interesting way. These responses have resulted in what is referred to as the Root Infinitive Hypothesis (RIH). This seeks to investigate the reasons why at early stages of both L1 and L2 acquisition finite verbs or root verbs generally appear in infinitive (non-finite) forms in finite contexts. The claim in this approach is that if the finite verbs appear in finite forms (inflected forms) such inflections are not productive because they do not create any contrasts in the interlanguage system until much later in the acquisition process. The quest to finding answers to this question have led to many sub-hypothesis in this approach among which are the Minimal Tree Hypothesis (please see Vainikka and Young-Scholton 1994, 1996a,b; Radford 1997, Eubank 1993) and the

Full Competence/Full Access Hypothesis (see Epstein, et al. 1996, 1998; Flynn 1996; Flynn and Martohardjono 1994; Schwartz & Sprouse 1996; Lardiere 1998, 2003) and a brief review in Gass and Selinker 2008).

A clear example of how generative grammarians respond to this flaw is seen in Lardiere (1998, 2003). Lardiere conducted a longitudinal study of case and tense marking in the interlanguage of a Chinese ESL learner who had lived in the United States for 10 years and was 34 years old at the time of the first recording of her production data. The ESL learner lived in the United States for18 years and was 41 years old at the time of the second and the third recordings of her production data. The main aim of that study was to question the methodological wisdom in studies that over-rely on the presence or absence of inflectional morphology as a form of evidence for positing the development of underlying syntactic representation or lack of such representation in interlanguage grammar. Lardiere claims that studies that consider morphological deficiency (i.e. lack of overt tense-aspect markers) as one of the primary bases for concluding that early-stage L2 learners lack associated functional features or underlying syntactic phrase structure have missed the point. Such studies missed the point because they claim that syntactic knowledge is acquired gradually built projection-by-projection as the rate of production of verbal morphology reaches some criterion target usually put at 80% to 90% suppliance in obligatory contexts. Ladiere claims that such questions as what happens in the interlanguage phrase structure when such criterion levels of productive verbal inflectional morphology are never reached has been ignored by these studies. Ladiere's investigation was directed at answering such questions through the analysis of the interlanguage produced by Patty his subject.

Lardiere found out that Patty's interlanguage was fossilized with respect to the marking of tense-aspect morphology because though she had lived in the United States for 18 years and had been exposed to "sufficient" L2 positive evidence because she worked in a predominantly white company and married to a white American, the tense-aspect inflectional morphology in her production data did not even approach the 80% to 90% criteria set by morpheme order studies. Past tense marking in Patty's interlanguage showed 34.78% (24 out of 69 cases) suppliance in obligatory contexts in the first recording, 34.58% (191 out of 548 cases) suppliace in obligatory contexts in the second recording and 33.82% (46 out of 136 cases) suppliance in the third recordings. This is a clear case of fossilization[23] as the learner could not go beyond about 34% accurate use of past tense-aspect inflections. However, Lardiere claims that Patty had developed the concept of temporality and the underlying phrase structure for the syntactic category of tense-aspect though the overt manifestation of such underlying syntactic phrase structure was deficient (Lardiere used case marking as evidence for this claim. Please see Lardiere 1998a for details). This stance is contrary to the morpheme order approach which sets the criterion level for acquisition of the tense-aspect morphemes and other grammatical morphemes but did not consider either the conceptual connection between form and function or the abstract syntactic representation of such morphemes. This is also contrary to the claims in studies that assume that the underlying abstract syntactic representation of tense-aspect is deficient or does not develop until the learner shows such high criterion level of suppliance in obligatory contexts as 80% or

[23] What Lardiere did not discuss in this work was the possible causes of this fossilization and the fact that Patty's L1(Chinese) does not have the grammatical category of tense which might provide answers to the question of why there was such a low level of past tense marking in that interlanguage. Lardiere might be right in claiming that Patty had underlying concept of temporality and the accompanying abstract syntactic phrase structure representation in her L2 since in her L1 the underlying concept of temporality is available and time reference is made using aspectual distinctions and other devices but not inflectional morphology.

90% (Minimal Tree Hypothesis; see Vainikka and Young Scholton 1994, 1996a; Radford 1997 etc.).

Functional linguists have also responded to the weaknesses of morpheme order studies by looking beyond mere sequencing of the grammatical morphemes in the order of their acquisition in the interlanguage and noting that the functional components of the verbal predicates may be relevant. As noted earlier in the introduction, two strands of studies have emerged from the functionalists' reaction namely the form-oriented studies and meaning-oriented studies. A general model showing the various approaches to the study of temporality may be presented as in figure 2.7 below.

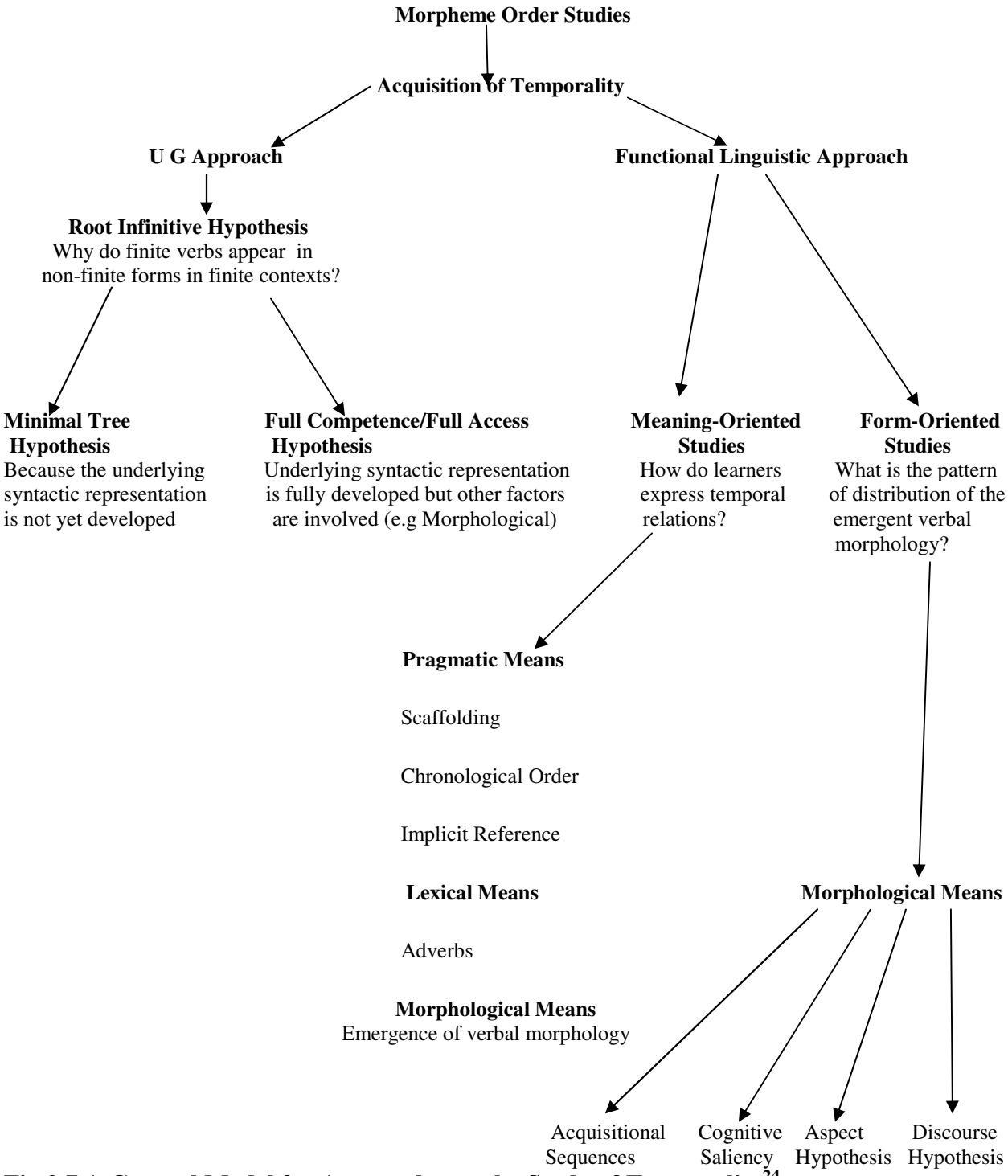


Fig 2.7 A General Model for Approaches to the Study of Temporality[24]

[24] Compare this model to similar models (though not same) in Bardovi-Harlig 2000:12 and Upor 2009:31.

Recently there have been a few meaning-oriented studies like Lubber-Quesada (2004, 2006), Lee (2001), Bardovi-Harlig (1992) and a prolific interest in form-oriented studies such as Upor 2009, Bardovi-Harlig and Bergstrom (1995), Bardovi-Harlig (1998), Bardovi-Harlig and Reynolds (1995), Salaberry (1998, 2000), Ayoun and Salaberry (2008), Shirai and Andersen (1995), Andersen (1991) and Shirai and Kurono (1998) and so on. Meaning-oriented studies investigate a particular concept such as temporality and ask how it is expressed in the interlanguage and according to Bardovi-Harlig (2000), such concepts have to be clearly defined for such goal to be achievable.

One of the basic tenets of this approach to the study of temporality is the assumption that adult learners of second or foreign languages have access to the full range of semantic concepts from their previous linguistic and cognitive experience. The belief is that "a second language learner; in contrast to a child learning his first language; does not have to acquire the underlying concepts. What he has to acquire is a specific way and a specific means of expressing them" (Von Stutterheim and Klein 1987:194). The major focus of studies using this approach is meaning. This leads to research questions such as the following. (a) How do learners express temporality at a given stage of their acquisition process? (b) How does temporal reference change over time? (c) What are the explanatory factors that can account for the development from one stage to another, including the target-like usage? Studies have shown that at the early stages of acquisition even before the verbal elements are acquired learners use various devices like chronological order, schaffolded discourse, implicit reference, various kinds of adverbials, connectives etc to express time reference (Trevise 1987; Klein 1993, 1994a, 1995; Dietrich et al 1995; Bardovi-Harlig 2000, 1992; Lubbers-Quesada 2006). Most of these questions are beyond the scope of this study and are better handled in longitudinal studies because cross-sectional

studies such as this one cannot claim, for instance, to follow the emergence and developmental patterns of temporal reference in individual participants.

A good example of meaning-oriented study is Bardovi-Harlig (1992c) which investigated the role of adverbials in temporal expressions as learners show increasingly reliable use of verbal morphology. The major research question was: Will the use of adverbials decline with the presence of tense-aspect morphology in the interlanguage or will it remain the same creating a greater redundancy? The participants included eight adult ESL learners recruited for the study during their first six months of residence in the United States. They were also full-time students in Intensive English Program (IEP) at the Center for English Language Training at the University of Indiana. Six of the learners; 2 Arabic, 2 Japanese, 2 Koreans were placed on the first level of the program on arrival while 2 others; 1 Japanese and 1 Korean were place in the second level on arrival. The data was collected from the learners' daily journals (about 85% of the data). The remaining 20% of the data were narratives invented by the learners in response to a narrative prompt given in class which were both oral and written narratives. The data was collected on six occasions corresponding to time one to time six (T1-T6) used in the data analysis.

The results of analysis of the data showed that generally learners began with a higher adverb-to-verb ratio (in the range of one adverb to three verbs) but tended to move toward a lower adverb-to-verb ratio. This indicated that the learners relied more on the lexical devices at the earlier stages of the acquisition of temporality but this trend was reversed at the later stages of acquisition as verbal morphology emerged. This showed the use of time adverbials decreased over time and the use of the past-tense morphology increased over time. So, the meaning-oriented approach emphasizes the importance of the pragmatic and the lexical means in the expression of temporality and reveals that learners develop a functional and rich means of

temporal expression before the acquisition of verbs and verbal morphology. The meaning-oriented approach also examines the interplay between the pragmatic, the lexical and the morphological devices that learners use. To understand the reach of the meaning-oriented studies and the various research designs used and concepts covered, we present in table 2.8 a run-down of studies that have used this approach over the years.The table is arranged to show the target language, the author, the number of learners and their L1, the research design, whether the learners were instructed or not, the temporal concept studied and the data elicitation type. This table is adopted from Bardovi-Harlig (2000) and modified by this study. A similar table can be found in (Upor 2009:33-34).

Table 2.8

Studies of Temporality Using Meaning-oriented Approach

Target Language	Author	L1/# of learners	Design	Instruction	Concept studied	Data elicitation
Dutch	Klein, Conan, van Helvert & Hendrick (1995; from DKN[25])	2 Turkish, 2 Moroccan Arabic	Longitudinal; 3 years	No class, 8 months No class, 2hr/week for 1 year	Temporality	Personal narratives film retell tasks, guided conversation
English	Schuman (1987)	1 Chinese 1Japanese 3Spanish	Interviews of learners living in the US for at 10 years	None	Temporality	conversational interviews
	Sato (1990)	2 Vietnamese children (10 & 12 yrs old)	Longitudinal, (10 months)	No ESL courses, attended public schools	Past	wide range of oral tasks in a variety of settings
	Bardovi-Harlig(1992c)	8 Arabic, Korean, Japanese, Spanish	Longitudinal, 0-6	Intensive English program months of ESL	Past	oral and written personal narratives
	Bardovi-Harlig(1994b)	16 Arabic, Korean Japanese, Spanish	Longitudinal (15.5 months)	Intensive English program with ESL instruction	reverse-order reports	written personal narratives, some retell
	Klein(1995;from DKN)	2 Italian, 2 Punjabi	Longitudinal (3 yrs)	4-10 months, none	Temporality	personal narratives, film retell task, guided conversation
	Salsbury (1997)	17 mixed	Longitudinal(6 months)	Intensive English	Hypotheticals	Essays
French	Nayau (1984)	2 Spanish	Longitudinal (1year)	French for refugees	Past	personal narratives, film retell, guided conversations
	Veronique (1987)	5 Arabic, 2 Berbers	Cross-sectional (3levels)	Illiterate in L1 and L2	Past	past-time passages from conversational interviews
	Trevise (1987)	2 Spanish	Single interviews	3 months or less	Past	narratives from conversational interviews
	Schlyter (1990)	2 Swedish adults, 3 bilingual French-German children	Single taping at 9 and 11 months	None	Temporality and general acquisition	conversational interviews (adults), conversation during play (children)
	Nayau (1990)	3 Spanish	Longitudinal	Not specified	Past	personal narratives

[25] DKN = Dietrich, Klein & Nayau (1995).

			18 months selected ESF project			from free conversation

Target Language	Author	L1/# of learners	Design	Instruction	Concept studied	Data Elicitation
	Nayau, Houdaifa, Vaseur & Verinique (1995; from DKN)	2 Moroccan Arabic, 2 Spanish	Longitudinal (3 years)	None	Temporality	personal narratives, film retell tasks, guided conversations
	Moses (1997)	74 English	Cross-sectional but developmental	University foreign language courses	Futurity	written accounts of future plans
German	Meisel (1987)	45, Italians Spanish Portuguese	Cross-sectional	Not specified	Past	conversational interviews some formal tasks, oral proficiency tasks
	von Stutterheim (1991)	20 Turkish	Sampling from larger studies	None	Past	Spontaneous conversation data, narratives and Descriptions
	Dittmar & Terborg (1991)	16 Polish (1 learner selected)	Longitudinal, 2.5 years	Not specified	Modality	narrative, reports, instruction giving
	Skiba & Dittmar (1992)	3 Polish	Longitudinal, 3 years	1 learner occasional attendance at German Class	Modality	Not specified
	Dietrich (1995; From DKN)	3 Italians, 2 Turkish	Longitudinal, 3 years	Italians none; Turks up to 10 hrs/week	Temporality	Personal narratives, film retells, guided Conversations
Italian	Giacalone Ramat (1995a)	2 Moroccan Arabic, 2 Chichewa	Cross-sectional	Not specified	Modality	Oral directive
Swedish	Nayau, Dorrots, Sjostrom & Voioma (1995; from DKN)	2 Spanish 2 Finnish	Longitudinal, 3 years	classes in Swedish and trade courses	Temporality	personal narrat film retell tasks guided cons.
conversations						

Sourses: Bardovi-Harlig, K. (2000). Tense and Aspect in Second Language Acquisition: Form, Meaning and Use; Upor, R. (2009) The Acquisition of Tense-Aspect Morphology Among Tanzanian EFL Learners.

According to Bardovi-Harlig (2000), the meaning oriented studies are important for the following reasons. First, they emphasize the importance of the pragmatic and the lexical means in expression of temporality since the form-oriented studies tend to ignore this aspect. Second, they reveal that learners develop a functional and often rich means of temporal expression before the acquisition of verbal morphology. Third, they highlight the interplay between the pragmatic, the lexical and the morphological devices that learners use. Moreover, Bardovi-Harlig (2000) and Salaberry (2000a) share the view that the meaning-oriented studies is more suitable than form-oriented approach for investigating the earliest stages of acquisition during which learners do not yet employ verbal morphology to express temporal reference. This view prompts my decision to recruit participants for this study not from primary one to three students (1st grade to 3rd grade) but from primary four (4th grade) students. The assumption is that at this level the participants have started to master the target tense-aspect morphology in line with the major theoretical assumptions of the aspect hypothesis.

The form-oriented studies (or form-to-function studies) investigate particular morphemes or forms to find out how such forms are use in the interlanguage and from there trace what the usage of the forms in the learners' interlanguage are (Sato 1990; Housen 2002; Rohde 2002; Robison 1990, 1995; Wagner 2009; Salaberry 1999, 2000 Weist 2002 etc). The form-oriented studies focus on the process of acquisition rather than the end-products of such acquisition. The majority of form-oriented studies explore the aspect hypothesis with the basic assumption that both the child and the adult learners are sensitive to the effects of the inherent semantics of the verbal predicates when acquiring and using verbal morphology (Antinucci & Miller 1976, Weist et al. 1984; Andersen 1991; Salaberry 1999, 2000, 2002 etc). Other form-oriented studies explore the cognitive saliency hypothesis with the basic assumption that learners are sensitive to

the lexical saliency (the phonological shape) of the verbs when acquiring and using verbal morphology. The latter approach has been used in conjunction with the former in many studies of acquisition of tense-aspect morphology (Salaberry 2000; Ayoun and salaberry 2008; Sato 1990). Yet other form-oriented studies explore the discourse hypothesis with the basic assumption that learners are sensitive to the discourse structure of the verbs when acquiring and using tense-aspect morphology (Bardovi-Harlig 1992b, 1995a, 1998; Flashner 1989; von Stutterheim 1986; Veronique 1987 etc). The following section discusses the major tenets and predictions of these strands of studies.

2.5 The Aspect Hypothesis (AH)

As noted earlier, many form-oriented studies in recent times explore the basic assumption that both children and adults are sensitive to the inherent lexical semantic markup of the verbal predicates (i.e. the lexical aspectual class of the verb)[26] during acquisition and distribution of tense-aspect morphology. This is the basic assumption of the aspect hypothesis and as Bardovi-Harlig (2000) has observed, this recognition of the role of semantics in acquisition of tense-aspect morphology is part of the recent general recognition of the role of semantics in interlanguage. The aspect hypothesis has its root in the theories of temporal semantics and is related to the research in child language acquisition conducted in the 1970s and the early 1980s (Antinucci and Miller 1976; Bloom et. al. 1980; Bronckart & Sinclair 1973; Sinclair 1973; Bickerton, 1975, 1981; Givon 1982 Weist et al. 1985; Weist 1986 etc).

In first language (L1) acquisition research, studies have found that children were sensitive to the lexical aspectual classes of the verbs in the morphological encoding of past events. For example,

[26] Please see section 2.1.3 for a discussion of Lexical/Inherent Aspect.

Antinucci and Miller (1976) using a conversational data from a longitudinal study of seven Italian-speaking children and one English-speaking child learners of Spanish reported that the children used the past participle with change-of-state verbs with clear results (i.e. achievement verbs like *arrivare* "arrive", *cascare* "fall", *venire* "come" etc). In contrast, stative verbs like *volere* "want", *sapere* "know" etc and activity verbs like volare "fly", *caminare* "walk" were not used with the past. Antinucci and Miller (1976:182) concluded that "the child is able to make reference to and encode past events only when their character is such that they result in a present end-state of some object" (like break etc.).

Weist et al. (1984:348) interpreted this kind of use of tense to express aspectual rather than deictic relationships as "defective in its normal function at this phase of development" (i.e. ages 1;6 to 2;6). They therefore articulated the "Defective tense hypothesis" as follows:

i. "Only telic verbs will receive past-tense inflections
ii. Tense distinctions will be redundant and only accompany aspectual distinctions
iii. Only references to immediate past situations will be made" (p. 348).

This was the first attempt at articulating this assumption into clearly stated predictions that can be tested. In a recent study, Wagner (2009) claims that the basic pattern of temporal-aspectual groupings found among children in first language acquisition could be summarized in a tabulation showing the prototypical groupings of the elements in the temporal-aspectual categories as in table 2.9 adopted from that study.

Table 2.9 A Prototypical Temporal-Aspectual Groups

	Group 1	Group 2
Lexical aspect	Telic (punctual)	Atelic (durative
Grammatical aspect	Perfective	Imperfective
Tense	Past	Present

On this table, each row represents an ideally independent dimension of grammar. Groups 1 and 2 represent the prototypical groupings that exist naturally in language based on information processing requirements. The basic claim in Wagner's study is that at the early stages of acquisition of tense-aspect morphology, children do not go beyond the prototypical groups when trying to make time reference. This leads to a well documented systematic under-extension in their production data. This results in their making such tense-aspect combinations as telic-past-perfective (John broke his leg) but scarcely make legitimate cross-group combinations like atelic-perfective-past (Peter flew) etc. Wagner took the claim even further by showing that adult native speakers who were not involved in any acquisition situation, though they made all kinds of cross-group combinations, demonstrated preference for the prototypical groupings in a comprehension task and a sentence comparison task conducted in the study.

Later on in the 1980s and 90s the assumption was brought into second language acquisition studies. This started at UCLA with Roger Andersen and his students including Shirai, Housen, Yuang, Robison etc. In Andersen (1986, 1991 following Weist et. al 1984) the defective tense hypothesis was stated as follows.

> In the beginning stages of language acquisition only inherent aspectual distinctions are encoded by verbal morphology, not tense or grammatical aspect (Andersen 1991: 307).

Later on Robison (1990) reformulated the hypothesis and called it primacy of aspect hypothesis which he stated as follows.

> Aspect is primary in the sense not that morphemes that denote aspect in the target language are acquired first, but that target language verbal morphemes, independent of their function in the target language are first used by learners to mark lexical aspect (Robison 1990:316).

However, Robison later revised the clause "are first used by learners to mark aspect" to the prediction that "verbal morphology correlates with lexical aspect at least during some stage in the development of interlanguage" (Robison 1990:330). However, tense has been observed by Rohde 1996, 2000; Robison 1995a; Bardovi-Harlig 1998, 2000; Bardovi-Harlig and Reynold 1995 and others to develop along with lexical aspect and tense-aspect morphology is also used to mark temporal contrast though the distribution is biased toward the lexical aspectual classes. These led to the latest formulation of the aspect hypothesis by Andersen and Shirai (1995), Shirai and Andersen (1996), Bardovi-Harlig (1998, 2000), Ayoun and Salaberry (2008) etc.

The latest formulation predicts that situations that have inherent endpoints (e.g. *to crash, to break, to reach the top, to notice something, to recognize somebody*), will be the first type of verbs marked with the past tense-aspect markings as they first emerge in the interlanguage of any L2 learners. That is, telic predicates (events), made up of accomplishment and achievements, are marked with the past tense-aspect morphology first. This would be followed by atelic predicates (i.e. activities; processes that have no inherent end point). Examples of these include; *to walk, to beg, to look, to watch, to do, and to listen*. The last class of verbs to be marked with the past tense-aspect morphology is the stative predicates (a type of atelic). Staives include verbs like; *to be, to remain, to know, to have, to want* etc. What this means is that the appearance of the verbal morphological markings on the verbal predicates in the interlanguage of L2 learners would depend on the lexical semantic class of the predicate. That is, L2 learners first use tense-aspect morphology to mark or in relation to the lexical semantic classes of the verbs Andersen and Shirai (1995), Shirai and Andersen (1996), Ayoun and Salaberry (2008), Bardovi-Harlig (1998a, 2000), Collins (2002), Housen (2002) etc.

The aspect hypothesis makes other predictions which are not central to this study. These will equally be tested because they provide a yard stick for comparison, analysis, evaluation and the ultimate understanding of the acquisition and distribution of the past tense-aspect morphology. These include the prediction that "in languages that encode the perfective/imperfective aspectual distinction, the imperfective past appears later than the perfective past and the imperfective past marking begins with statives; extending next to activities, then to accomplishments, and finally to achievements" (Bardovi-Harlig, 2000:227). Andersen (1991) presents an analysis of the interlanguage of speakers of English who are L2 learners of Spanish. The results show that this prediction is perfectly supported by the data in that interlanguage since Spanish attests the contrast between the perfective (preterit for Spanish) and the imperfective (imperfect for Spanish).

Another prediction of the A H includes the fact that "in languages that have the progressive aspect, the progressive marking begins with activities, then extends to accomplishments and achievements" (Bardovi-Harlig, 2000:227). The last prediction of the AH is that "the progressive markings are not incorrectly overextended to states" (Bardovi- Harlig, 2000:227, Salaberry, 2000:137).

The aspect hypothesis has been studied with the use of various methods of data elicitation procedures like oral and written personal and impersonal narratives and cloze tasks. The participants have included both tutored and untutored learners. The design of the studies have included both cross-sectional and longitudinal. Some of the cross-sectional studies can be regarded as developmental because learners at different proficiency levels are included. Also, most aspect studies are quantified following Meisel's (1987:220) admonition that citing isolated examples will not suffice to properly test the AH and that "quantification is indispensible in this

case". To fully understand the range of methods that have been used in the AH studied in recent years, we present a summary of the studies addressing the AH on table 2.10. This table is adopted from Bardovi-Harlig (2000) and expanded by this study.

Table 2.10 Empirical Studies Addressing the Aspect Hypothesis

Target language	Author	L1	NOP	# Predicates	Instruction	Design	Analysis	Tests	Quantified
Catalan	Camaloan (1998)	English	1	311	CFL, 2 semesters	Longitudinal, conversational interview & oral story/film retells	Vendler	Yes	Yes
Dutch	Housen (1993), (1994)	English	1	398 (T1) 551 (T2)	DFL, also two one month visit to Holland	Longitudinal, 2 samples 1 year apart; guided conversation	Stative/dynamic durative/punctual	Yes	Yes
English	Kumpf (1984b)	Japanese	1	250	None	conversational interview	stative/active	No	Yes
	Flashner (1989)	Russian	3	649	Limited instruction	personal narratives from spontaneous speech	perfective/ imperfective/irealis	No	Yes
	Robison (1990)	Spanish	1	553	contact learner, some instruction	conversational interview	stative/dynamic, durative/punctual	Yes	Yes
	Bayley (1991, 1994)	Chinese	20	4,917	10 ESL	Cross-sectional, personal narrative	perfective/ imperfective	Yes	Yes
	Bardovi-Harlig (1992a)	mixed	135	945	intensive ESL	Cross-sectional, cloze passage	Vendler	Yes	Yes
	Bardovi-Harlig & Reynolds (1995)	mixed	182	8,554	intensive ESL	Corss-sectional, short cloze passages	Vendler	Yes	Yes
	Robison (1995)	Spanish	26	3,649	EFL	Cross-sectional, conversational interview	Vendler; punctual activity & punctual state	Yes	Yes
	Bardovi-Harlig & Bergstrom (1996)	mixed	20	850	intensive ESL	Cross-sectional, written narratives(film retell)	Vendler	Yes	Yes
	Rohde (1996)	German	2 children	534	attended elementary school (No ESL)	Longitudinal, spontaneous speech	Vendler	Yes	Yes
	Collins (1997)	French	70	3,220	ESL	Cross-sectional, short cloze passages	Vendler	Yes	Yes

Target language	Author	L1	NOP	# predicates	Instruction	Design	Analysis	Tests	Quantified
	E. Lee (1997	Korean	2	1,612	14-year-old, 1 year in Korea, both attended Elementary school in U.S.	Longitudinal, spontaneous speech, story narrative, picture description	Vendler	Yes	Yes
	Bardovi-Harlig (1998)	mixed	37	2,779	intensive ESL	Cross-sectional, written & oral narratives (film retell)	Vendler	Yes	Yes
French	Kaplan (1987)	English	16	Not specified	FFL	Cross-sectional, semi-structured interviews	perfective/ imperfective	No	Yes
	Bergstrom (1995, 1997)	English	117	2,211	FFL	Cross-sectional, written narrative (film retell) & Cloze passage	Vendler	Yes	Yes
	Bardovi-Harlig & Bergstrom (1996)	English	20	650	FFL	Cross-sectional, written narratives (film retell)	Vendler	Yes	Yes
	Salaberry (1998)	English	39	1,200 Narrative 1,599 cloze	FFL	second semester students, multiple choice, written narratives (film retell) cloze passage	Vendler	Yes	Yes
Italian	Giacalone Ramat & Banfi (1990)	Chinese	4	1,141	Some	Longitudinal, conversa-tional interview	perfective/ imperfective	Not specified	Yes
	Giacalone Ramat (1995c, 1997)	mixed	20	148 progre-sive verbs	4 learners had some instruction, 16 had none	4 cross-sectional; 16 longitudinal, conversa-tional interviews (oral narratives, film retell, description of picture stories)	vendler and mental states	Not specified	Some
Japanese	Shirai (1995)	Chinese	3	234	intensive JSL	conversational interview at 8 months in Japan	Vendler	Yes	Yes

Target language	Author	L1	NOP	# Predicates	Instruction	Design	Analysis	Tests	Quantified
	Shirai & Kurono (1998)	mixed	17	939	intensive JSL	Judgment task at 3,6,9 months in Japan	Vendler	Yes	Yes
	Sibata (1998)	Portuguese	1	147 (25 types)	None	structured conversational interview	Vendler	Yes	Yes
Portuguese	Leira (1994), Leira & Mendes (1995)	mixed	120	1,125	PSL in university courses	levels of learners not specified; 218 written narratives (oral retell From formal exams)	6 classes (Moens & Steedman 1988)	No	Yes
Russian	Leary (199)	English	40	1,002	RFL university 1st to 4th year	Cross-sectional, film retell	Vendler	Not specified	Yes
Spanish	Andersen (1986a)	English	1 child	1,629	None	Longitudinal; 2 years, Conversational samples	Vendler	Yes	Yes
	Andersen (1991)	English	2 children	Not Specified	None	Longitudinal; 2 year, 2 conversational samples	Vendler	Yes	No
	Ramsay (1990)	English	30	2,130	SFL, some contact	Corss-sectional, retell of picture book (oral)	states, activities, events	No	Yes
	Martnez, B (1994)	Dutch	15	662	SFL	advance learners, 2 composition per learner	Vendler, error analysis	No	Yes
	Hasbun (1995)	English	80	2,713	SFL	Cross-sectional, oral narratives (film retell)	Vendler	Yes	Yes
	Lafford (1996)	English	13	387	SFL	Cross-sectional, oral narratives, (film retell)	Telic/atelic	No	Yes
	Liskin-Gasparro (1997)	English	8	Not specified	SFL	advanced learners, oral narratives (film retells), Introspection	Vendler	No	Yes

Target language	Author	L1	NOP	# Predicates	Instruction	Design	Analysis	Tests	Quantified
	Salaberry (1997)	English	16	2,054	SFL	Cross-sectional, oral Narratives (film retell), Grammar test, cloze test, editing task	Vendler	Yes	Yes
	Salaberry (1999b)	English	20	1,068 T1 986 T2	SFL	Cross-sectional, oral narratives (film retells) 2 samples 2 months apart	Telics, activities & states	Yes	Yes
	Cadierno (2000)	Danish	10	656 written, 1,354 oral	8 SFL plus 6-18 months Residence in TL countries, 2 SSL in host Country	advanced learners, 1st year university class; oral semi-structured interview, written narratives	Vendler	No	Yes
A Few Aspect Studies in the 2000s									
English	Salaberry (2000)	Spanish	14	*	EFL courses	Cross-sectional, Written & oral Narratives (film retell)	Telic events, Atelic events, states	Yes	Yes
	Rohde (2002)	German	4 Children	*	None, attended elementary Schools	Longitudinal, 6 months, written & tape recordings of Conversational Interviews	Vendler	Yes	Yes
	Lee (2001)	Korean	2 Children	*	None; attended elementary Schools	Longitudinal; 13 months, story narration & translation, Picture description	Vendler	Yes	Yes
	Ayoun & Salaberry (2008)	French	21	771	EFL	Cross-sectional, personal narratives, Cloze test	Vendler	Yes	Yes

Target Language	Author	L1	NOP	# Predicates	Instruction	Design	Analysis	Tests	Quantified
	Haznedar (2007)	Turkish	1 child	*	None	Longitudinal; conversational Interview; 18 Months	statives, punctual, non-punctual	Yes	Yes

Adopted from Bardovi-Harlig (2000:206-210). Tense and Aspect in Second Language Acquisition: Form, Meaning, and Use; University of Michigan, Blackwell Publishers Ltd and expanded by me.

2.6 The Cognitive Saliency Hypothesis (CSH)

In spite of the ongoing hike in interest on the effects of the lexical aspectual class of verbs in acquisition of tense-aspect morphology, some scholars are also interested in other factors that may be used to explain the tense-aspect phenomena in interlanguage. One of such factors is "the role of the perceptual saliency and the frequency of verbal endings (i.e. regular vs irregular morphology) in the past tense marking" (Salaberry 2000:137). The claim is that irregular verbs are typically frequent and the morphological differences between the base forms and the inflected past tense forms are perceptually more salient compared to the regular verb ending like *-ed* which may be hard to process by the learners. For instance, Sato (1990) conducted a longitudinal (10 months) study of two Vietnamese speakers learning English in the United States with foster families. The analysis of the data revealed that the two learners did not use inflectional endings (i.e. regular past tense morphology) to mark the past tense. Instead, they used what Sato (1990)[27] calls 'lexical past verbs' (e.g. brought, came); the irregular past tense morphology was the only means attested in Sato's data to mark the past tense.

The postulation is that irregular verbs may be listed in the mind of the learner/speaker differently than how regular verbs are listed. Irregular verbs may be listed as individual lexical items. That is, the base forms and the inflected forms may be listed independently of one another. This makes for ease of retrieval and processing when compared to the regular verb morphology which is rule-based and has to be generated by some syntactic rules which might not have jet been acquired by the L2 learner. A study that tested this postulation is Hawkins and Liszka (2003).

[27] An interesting question for this result is; Were the learners still at very early stages of their L2 acquisition? If the answer is yes, then one might say that perhaps they were still at the lexical stage of acquisition of temporality and this may provide evidence that irregular past verbs are listed as independent lexical items in the mind of the learners enabling them to select and use them as lexical entities though rule for generating regular tense-aspect morphology has not yet been acquired.

That study investigated the effects of the regular-irregular morphology in the use of the L2 English past tense marking among the L1 speakers of Chinese, Japanese and German. The learners performed at an advanced level of L2 English proficiency as determine by a written test that assessed their use of the past tense marking. The overall results from analyses of the data collected through spontaneous personal narratives (oral narratives) and written retells of a movie except show that the learners were more successful in using the irregular past (approximately 84% correctly inflected) than the regular past tense. Hawkins and Liszka therefore speculated that the irregular forms might be processed as independent lexical items that have different morphological status than the syntactically based regular forms.

In essence, the major prediction of this view is that the more frequent and irregular the verb, the more likely it will appear first in the development of the past markings in the interlanguage of L2 learners irrespective of the lexical semantic class of the verb (Wolfram 1985; Sato 1990; Bayley 1994; Klein et al. 1995; Salaberry 1999a, 2000; Hawkins and Liszka 2003; Ayoun and Salaberry 2008).

Furthermore, scholars have been interested in the internal distribution of the past tense marking within the irregular class of verbs itself. The aim has been to test the effects of phonetic saliency on such past tense markings. For example, Wolfram (1989) studied 32 Vietnamese and showed that for the irregular verbs, the past marking is most likely when the past forms are least like the non-past forms. Wolfram proposed the following order of acquisition; suppletives (e.g. be) > doubly marked (internal change with suffix) (e.g. sleep vs. slept) > internal vowel change (e.g. come vs. came) > modals (e.g. will vs. would) > replacives (e.g. have vs. had). Bayley (1991, 1994) conducted a similar study among 20 Mandarin Chinese speakers who were L2 learners of English and found out that the more salient the phonetic difference between the past and the

present tense forms, the more likely a past reference verb (i.e. verb in past time context) to be marked with the past tense. He posited the following hierarchy: suppletive (e.g. be) > doubly marked (e.g. sleep vs. slept) > internal vowel change (e.g. sing vs. sang) > change in final segment (e.g. send vs. sent) > modal (e.g. can vs. could).

Also, some scholars explore the role of the discourse structure of the clause in which the verb is used (foreground or background clauses), possible cross-linguistic effects, effects of instruction and effects of the differences in proficiency levels on acquisition and distribution of tense-aspect morphology. We shall not discuss the role of the discourse structure as it is not germane to the research questions in this work (see Bardovi-Harlig 2000; Flashner 1989; Tajika 1999 etc for such discussion). As for cross-linguistic effects, effects of instruction and effects of the differences in proficiency level, we present a brief discussion in section 2.8 but for now we discuss some empirical studies that have tested the AH and the CSH.

2.7 Empirical Studies that have tested the AH and the CSH

In this section we present a summary of one study that has provided empirical support for the predictions the AH (Collins 2002/2004), one study that has provided a counter-evidence to the predictions of the AH (Housen 2002), one study that has tested jointly both the predictions of the AH and the predictions of the CSH (Salaberry 2000a), and finally one study that has tested the AH in an African context (Upor 2009).

2.7.1 Collins (2004)

In this study, 139 Japanese and French-speaking ESL learners at different levels of proficiency were tested to investigate the spread of the past tense-aspect morphology and the degree of L1 influence in their acquisition of the past temporal reference. Participants completed a 25-

passage cloze test. A significant effect was found for lexical aspect; that is, the lexical aspect determined the spread of the past tense-aspect morphology. But there was no interaction between lexical aspect and group suggesting that the lexical aspect influenced the use of the past tense morphology for the French and the Japanese-speaking learners alike. Overall, participants were more successful with telic predicates (achievements and accomplishments) than with activities and states, supporting the AH. But before this, Collins 2002 had conducted a similar study to test the predictions of the AH and to establish the degree of L1 influence that would accrue from the inappropriate use of the present perfect, which has similar form and use in English like the passé compose in French. The participants were 70 Francophone university students enrolled in a 6-week intensive English course in a French-speaking area of the Canadian province of Quebec. The study used a 32-passage cloze test and a written retell of a movie in the data elicitation. The results of the study revealed a significant difference in the past tense use across lexical aspectual classes but there was no interaction with proficiency levels. Furthermore, the L1 effect in the present perfect use seemed to be restricted to learners at the higher proficiency levels. Overall, learners had the most difficulties in using the past tense with activity verbs.

2.7.2 Housen (2002)

Housen (2002) is another recent study that has provided what seems to be counter-evidence to the claims of the AH. Using a longitudinal data from a-9-year-old Dutch child, Housen (2002) showed that whereas the development of the progressive marking supported the prediction of the AH, the development of the past tense did not. First, states were marked with the past tense beginning in the early stages of development much more than expected, though they were mostly irregular verbs. Second, type analysis, as opposed to token analysis did not support the proposed early association of the past tense marking with achievements, because the repeated use of a few

achievement verbs (i.e. ‘said’ and ‘got’) inflated their token count. Housen (2002) therefore speculated that the AH prediction for the past tense might be valid for the regular past only whereas a different processing mechanism might be involved for the irregular past. Housen added that the irregular past was assumed to be more proned to rote learning than the regular past and this was later reaffirmed in Ayoun and Salaberry (2008).

2.7.3 Salaberry (2000a)

The main focus of Salaberry’s study was to analyze the written and orally elicited narratives from 14 native speakers of Spanish learning English in a classroom setting to determine the effect of the lexical semantics and the cognitive saliency of the verbs. The verbs were analyzed into three aspectual classes using the two major criteria of telicity and stativity. Telic events, atelic events and stative verbs were identified. On the morphological level, three classes of verbs were identified: the irregular past, the regular past and the non-past (present). Salaberry used two operational tests to sort the verbs into aspectual classes but used morphological endings to sort the verbs into irregular vs. regular past and non-past. Participants were not grouped into proficiency levels or any other groupings because their knowledge of the target language was determined to be at intermediate level regardless of the course enrollment. So a within-subject analysis was used.

The results of the analysis of the data showed that (1) written narratives were slightly longer than oral narratives. (2) Learners marked more verbs with the present in the oral narratives compared to the written narratives (31 vs. 17%, respectively). (3) Among verbs marked with the past tense in both narratives, approximately twice as many were irregular verbs (40% irregular vs. 26% regular in the oral narrative and 56% irregular vs. 26% regular in the written narrative). (4) These results confirmed previous findings: planning time (monitoring) affects the use of markers of the

past tense and learners rely on a lexically based procedure as well as a rule-based one to mark the past tense (Skehan 1998). (5) There was evidence of task effects; task type influenced the use of morphological markers of the past tense. In the written task, learners 1, 3, 6, 7, 9, 10 and 13 marked almost all verbs with past tense; of these, only learners 6 and 13 showed evidence of similar performance in the oral narratives. (6) This mismatch between the oral and the written narratives may signal the beneficial effect of planning time (monitoring) provided by the written task. (7) Learners tended to use verbs that corresponded to telic events to retell the movie in both tasks: 77 and 74% of all verbs corresponded to telic events in the oral and written narratives, respectively. 12 and 15% were states in the oral and the written narratives respectively and11% of all verb types were atelic events. (8) This study did not support the AH and Salaberry stated that "as for the effects of the lexical aspectual classes on morphological marking, the data from this study seem to go against the predictions of the lexical aspectual hypothesis". For instance, in the oral narrative of learner number 11, the majority of verbs that corresponded to telic events were marked with the present tense (12 out of 14) whereas all stative verbs were marked with the past tense (all 5).

Salaberry therefore argued that the contrast in the use of irregular vs. regular past tense morphology may be a consequence of the operation of two distinct cognitive processes in the development of inflectional endings in a second language namely the lexical (item) learning vs. rule-based learning (Pinker 1991 for L1 acquisition and Skehan 1998 for L2 acquisition). Pinker (1991) for example argued that the use of inflectional morphology to mark the past tense (in languages like English) may be dependent on a hybrid cognitive process that combines rule-like behavior as well as memory-based associations.

2.7.4 Upor (2009)

One study that investigated the predictions of the AH on the data collected from speakers of African languages who were EFL learners is Upor (2009). In that study, the researcher elicited data from 309 EFL instructed learners at primary school, secondary school and university levels in Tanzania. The researcher used a series of picture stories to elicit written narratives from the participants and also conducted interviews to elicit personal narratives which were audio-recorded. A questionnaire was also administered to elicit the biodata of participants and their self assessment of their language skills. The results of the data analysis showed that there was partial support for the predictions of the AH because the overall spread of the past tense morphology was as follows: Achievements > Statives > Activities > Accomplishments. This is in partial contrast with the prediction of the AH which states that the spread of the past tense morphology would be as follows: Achievements > Accomplishments > Activities > Statives. This partial support points to the need for more studies involving participants who are ESL learners with African languages as their L1.

A more convincing line of explanation for the developmental pattern found in Upor's results has been proposed by Gavruseva (2002, 2003, 2004 all cited in Haznedar 2007) in her Underspecification of AspP Hypothesis (contrary views in Haznedar 2007). In that proposal, telicity is considered to be a syntactic feature and is assigned to the lexical classes of verbs. Verbs are classified into Statives, Punctual eventives (Achievements) and Non-punctual eventives (Activities and Accomplishments). Stative verbs are said to be inherently atelic and have the syntactic feature V[-telic]. Punctual eventive verbs are said to be inherently telic and have the syntactic feature V[+telic] whereas Non-punctual eventive verbs are not specified for telicity and have the syntactic feature V[+/-telic]. The three major predictions of that proposal

include the fact that (1) Stative verbs, which are specified for telicity as V[-telic], would occur in finite contexts (i.e., be marked for tense-aspect morphology) because telicity licenses the construction of what the author calls "tense chain" by the verb. The tense chain enables verbs to form "non-defective" tense-aspect connection on the syntactic tree. (2) Punctual eventive verbs, which are specified for telicity as V[+ telic], would occur in finite contexts (i.e., be marked for the past tense-aspect) also because they are specified for telicity. (3) Non-punctual eventive verbs, which is specified for telicity as V[+/- telic], would occur in non-finite contexts and would not be marked for the past tense-aspect. This might explain the developmental pattern in Upor (2009) with respect to why States appear before Accomplishments and Activities in the development and use of the past tense-aspect morphology by this group of learners.

Also, the results showed some L1 transfer effects because a morphological feature of verbal reduplication (a typical feature of many African languages) was heavily attested in the participants' narratives and this has the potential to affect the spread or distribution of the past tense-aspect morphology in the interlanguage of these EFL learners.

2.8 Summary and Evaluation

There has been overwhelming support for the AH among studies that have used vastly different methods of data elicitation and analysis and different research designs including both longitudinal and cross-sectional designs. Studies that employed different numbers of participants who have different L1-L2 combinations have also supported the AH irrespective of whether the participants were tutored or untutored learners. Earlier studies that provided preliminary support for the predictions of the AH were mostly case studies conducted on mostly untutored learners (longitudinal studies of 1-4 participants). This left some doubts in the mind of researchers

because of the speculation that the effects of the lexical aspect found on the acquisition and distribution of tense-aspect morphology among those learners may have been idiosyncratic behavior of those learners. However, recent studies have expanded the number of participants and have included mostly tutored participants and quantification has become a crucial part of the data analysis in these studies. This has successfully rested the doubt about the effect of lexical aspect on acquisition and distribution of tense-aspect morphology. In this review, the following observations were made:

- Significant effects of lexical aspect on the marking of the past tense-aspect morphology have been reported irrespective of whether the participants are tutored or untutored learners and whether the research design is longitudinal case study or cross-sectional and whether quantified or not. The support for the AH has come from studies of acquisition of L1, L2 and FL tense-aspect morphology and from studies on learners from different linguistic background. The support has also been reported from studies using different methods of data collection and analyses (Giacalone-Ramat 2002; Robison 1995; Collins 2005, 2006, Shirai & Andersen 1995, Salaberry 2000a, b; Ayoun & Salaberry 2008).
- The developmental sequence of tense-aspect morphology in both L1 and L2 acquisition follows a universal pattern and is strongly influenced by the inherent semantic aspect of the verbal predicates (Shirai & Andersen 1995; Weist 2002; Robison 1995; Bardovi-Harlig & Reynolds 1995; Andersen 1991; Upor 2009).
- There are a number of other factors that influence tense-aspect marking among L2 learners. These factors include the differences in proficiency levels, the planning time effect (effect of "monitoring") (Salaberry 2000a following Krashen 1987 etc), task effects (difference between oral narratives and written narratives for example), the L1 of the

subjects, the L1-L2 combination of the subjects, instruction, the method of data analysis (within group analysis vs. across group analysis; token analysis vs. type analysis etc.) and even individual variations among participants.

- There is a subtle distinction between the distribution of the verbal predicates across lexical aspectual classes and the actual marking of the past tense on these predicates. According to Housen (2002) and Rohde (2002), the distribution of the verbal predicates in the production data of learners may support the AH because most of the verbs used in the past time contexts in the narratives may be telic verbs (Achievements and Accomplishments). But these verbs may not be marked with the past tense and therefore not supporting the AH.
- Studies that assess the combined effects of the lexical aspect and the cognitive saliency have found significant effects of the cognitive saliency of the verbs because irregular verbs have been shown to be marked with the past tense-aspect morphology long before the regular verbs (Sato 1990; Salaberry 2000a, 2000b; Bayley 1994; Hawkins and Lizska 2003; Ayoun and Salaberry 2008). These studies have postulated the operation of dual cognitive processes namely the rule-based process for the generation of the regular past and the lexical-based process for the generation of irregular past tense-aspect morphology. The latter is assumed to kick into operation long before the former in the process of acquisition of verbal morphology.
- L1 effects on the distribution of tense-aspect morphology across lexical aspectual classes have not been reported because studies on learners with heterogeneous language backgrounds have shown no apparent differences across L1 or to reflect the differences in L1 of the learners. L1 effects in other areas are shown to be restrained by the proficiency

levels of the learners. For example, learners at the higher levels of proficiency have been observed to transfer the French passé compose to English by using the present perfect in contexts where the native English speakers would prefer the simple past (Collins 2002, 2004). On the other hand, Upor (2009) reported L1 effects in the form of the transfer of reduplicated structures from various African languages where her participants were drawn into the English narratives by the learners but the transfer was mostly at the lower levels of proficiency. The choice of the level of proficiency where transfer is observed may depend on the nature of the linguistics structure that the learner is confronted with (Ortega L. 2009).

- There is sufficient evidence that instruction can be a positive influence in the acquisition of tense-aspect system in terms of the faster rates or speed with which instructed learners move through the observed acquisitional sequences. Yet instruction does not change acquisitional sequences and it does not seem to "save steps". Even though tutored learners are plunged into the morphological stage by virtue of instruction, they still exhibit the same pragmatic and lexical stages of temporal expression that have been observed for untutored learners. Tutored learners of various linguistic backgrounds like German, Dutch, Swedish, French, Swahili, etc. go through the same stages as their untutored counterparts. With respect to the sequences within the morphological stage, learners must satisfy the acquisitional prerequisites for a form to appear even with the help of instruction (Bardovi-Harlig 1999, 2000). What this means is that learners must follow the "natural" sequence of acquisition irrespective of whether they be instructed learners or learners in naturalistic environment. For example, within the hierarchy of irregular verbs as posited by Wolfram (1989) and Bayley (1994), learners would not

acquire the past forms of modal verbs before they acquire the past forms of suppletive verbs like the verb 'BE' for instance. The latter must precede the former whether the learners are instructed or uninstructed.

2.9 Conclusion

Based on this review and evaluation of major tenets of the AH and the CSH, we make the following predictions. (1) That the inherent lexical semantic aspect of the verbal predicates will exert strong influence on the pattern of acquisition and distribution of tense-aspect morphology among the Ibibio ESL learners. (2) That the developmental sequence of tense-aspect morphology among the Ibibio ESL learners will follow the universal pattern observed in previous studies. (3) That the lexical saliency of the verb will have a strong influence on the acquisition and distribution of tense-aspect morphology among the Ibibio ESL learners. (4) That the lexical aspect and the lexical saliency of the verbs alone will not be able to account for all the features that will be attested in the interlanguage of the Ibibio ESL learners-other factors will be implicated. (5) That when the combined effects of the lexical aspect and the lexical saliency is tested, lexical saliency will have stronger influence on acquisition and distribution of tense-aspect morphology among the Ibibio ESL learners. (6) That L1 effects on the distribution of tense-aspect morphology across the lexical aspectual classes will be subtle but will be based on the conceptual intricacies of the L1 lexical aspectual classes. (7) That L1 effects in other areas like the use of reduplicated structures and serial-verb-constructions will be quite obvious and easy to tease apart and discuss. (8) That instruction will have a positive influence on acquisition and distribution of tense-aspect morphology among the Ibibio ESL learners.

2.10 The Hypotheses

Based on the review of empirical studies on the effects of lexical aspect and lexical saliency and the resulting evaluation and predictions based on the evaluation, the following null hypothesis and research hypothesis have been operationalized and tested in this study.

i. **H_0**: There will be no relationship between the independent variables namely the lexical aspectual class of the verbs and or the lexical saliency of the verbs and the dependent variable namely the acquisition and distribution of the past tense-aspect morphology among the Ibibio ESL learners.

ii. **Research Hypothesis H_1:** There will be a relationship between the independent variables namely the lexical aspectual class of the verbs and or the lexical saliency of the verbs and the dependent variable namely the acquisition and distribution of the past tense-aspect morphology among the Ibibio ESL learners.

The major task of this study is to present empirical evidence from the interlanguage of the Ibibio ESL learners to refute the null hypothesis and show that there is some relationship among the variables. However, the lexical aspect and the lexical saliency are not the only independent variables that will be tested in this study. Others include the effects of instruction, cross-linguistic effects and the effects of the differences in proficiency levels. The effects of instruction have been operationalized as the defference among group in the production of the past tense-aspect morphology and will be guided by the following hypothesis.

i. **H_0:** There will be no relationship between instruction and acquisition and distribution of the past tense-aspect morphology among the Ibibio ESL learners.

ii. **H_1:** There will be a relationship between instruction and acquisition and distribution of the past tense-aspect morphology among the Ibibio ESL learners.

The effect of L1 is difficult to operationalize and test quantitatively and therefore has been analyzed qualitatively guided by these hypotheses.

i. **H_0:** There will be no relationship between the L1 of the learner and acquisition and distribution of the past tense-aspect morphology among the Ibibio ESL learners.

ii. **H_1:** There will be a relationship the L1 of the learners and acquisition and distribution of the past tense-aspect morphology among Ibibio ESL learners.

Finally, the effect of the differences in proficiency levels will be operationalized as the total number of years spent by the learners in studying the English language as learners at the lower academic levels is considered to have spent fewer years and therefore assumed to be at lower levels of proficiency than learners at higher academic levels. The tests of the effects of proficiency levels will be guided by these hypotheses.

i. **H_0:** There will be no relationship between the proficiency levels and acquisition and distribution of the past tense-aspect morphology among the Ibibio ESL learners.

ii. **H_1:** There will be a relationship between the proficiency levels and acquisition and distribution of the past tense-aspect morphology among the Ibibio ESL learners.

In the following chapters, we shall rely on the review of the theoretical basis for this study and the evaluation presented in this chapter in realizing the research design and methodological choices made in analyzing the data in chapter three and presentation of the results of the data analyses in chapter four and the subsequent discussion of the major findings in chapter five.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

As noted in chapter one, the main purpose of this study is to investigate the extent to which the expression of temporality through inflectional morphology by second language learners is determined or influenced by the lexical semantics and or the lexical saliency of the verbs. The effects of other factors like the proficiency levels and L1 effects that may constitute control variables will not be discounted in this study. Ultimately, following Andersen's (1986, 1989, 1991) prototypical account which assumes that learners at very high proficiency levels should begin to exhibit less distributional bias in the spread of tense-aspect morphology across lexical aspectual classes, we hope to assess whether any learners at higher academic levels in our corpus can achieve the level of competence in tense-aspect morphology that is comparable to the native English speaker competence by showing an even distribution of the past tense-aspect morphology across the lexical aspectual classes.

Whereas some scholars claim that ultimate attainment is not achievable by second language learners in the area of tense-aspect marking (Coppieters 1987; Birdsong 1992), others have made a contrary claim. The claim is that given appropriate exposure over sufficiently long period of time L2 learners do eventually demonstrate target-like use of morphological encodings of tense and aspect (Slabakova and Montrul 2000, 2003; Schlyter 1990; Paradis 1994; Montrul 2002). This background would certainly provide a bridge in the discussion of the study results in chapter five if any of the L2 learners in the higher academic levels exhibit less biased distribution of verbal morphology. In the mean time, we discuss all the methodological choices made and procedures employed in analyzing the data for this study in this chapter.

3.2 Research Design

The design of this study is cross-sectional which means that it involves an observation of the linguistic phenomenon in a cross-section of a population and subsequent sampling of the cross-section of that population at a particular point in time. This is in contrast with longitudinal case studies which involve an observation of a few individual representatives of a population usually 1-4 individual members of a group over an extended period of time. Inherently longitudinal studies are developmental. They observe the emergent, the development, and the spread of a linguistic form or form-function correlation in interlanguage of second language learners. Longitudinal studies afford the investigator the opportunity to follow the changes in interlanguage on individual bases and provide a detail description of such changes over time. However, longitudinal studies are often very difficult to quantify and the population studied is often very small thereby making generalization of the research findings difficult if not impossible (Rohde 2002 etc).

Cross-sectional studies tend to be more exploratory and analytical but not inherently developmental. However, cross-sectional studies can be designed to be developmental if appropriate levels of proficiency are included in the sample (Bardivi-Harlig 2000). This study has included learners at various levels of proficiency measured by the number of years they have spent studying the target language. This is deduced from the academic hierarchy of the participants sampled for this study (Salaberry 1999b, Upor 2009). Nevertheless, not all cross-sectional studies have the potential to be developmental and to show the acquisitional sequences or acquisition process of linguistic forms in the interlangauge. Studies that take a snap-shot of a cross-section of a population without including participants from different levels of proficiency do not meet the developmental criteria because they cannot show the process of acquisition of

tense-aspect morphology across groups and over time. Instead, these studies can be viewed as exploratory and analytical comparing rates of accuracy across participants (Salaberry 2000, Ayoun and Salaberry 2008).

3.3 The Research Participants

The target population in this study includes English as second language learners (ESL) who are currently in educational institutions in Akwa Ibom State of Nigeria. These include students in primary schools, secondary schools and universities in the State. This is apparently a very large population both in terms of size and magnitude so this study selected a sample to represent the entire population. The shared features of the selected population for this study included the following. (1) All participants must speak the Ibibio language or dialects of the Ibibio language as their L1. (2) All participants must be born or raised in an Ibibio speaking community. (3) All participants must attend educational institutions in the research area-Akwa Ibom State-during the time of this research.

Conversely, the variable features of the selected population included the following facts. One, their proficiency levels in ESL vary according to their levels of educational attainment. These will be measured in correlation with other variables to see if they have significant effects on the acquisition and distribution of the past tense-aspect morphology. Two, their age varies according to whether they are in primary schools, secondary schools or universities during the time of this study. And three, their degree of exposure to the English language outside the classroom varies according to the degree to which the participants use English in their homes. This information was collected through a questionnaire administered on the participants. It was designed to elicit demographic information on the participant. The demographic information was expected to

provide this study with a way of measuring the varying effects of the differences in the degree of exposure to the English language outside the classroom on acquisition and distribution of the past tense-aspect morphology.

The 171 participants sampled for this study were organized into six groups according to whether they were in primary schools, secondary schools or universities. Groups 1 and 2 were sampled from two primary schools, groups 3 and 4 were sampled from two secondary schools and groups 5 and 6 were sampled from a university. In order to safeguard the confidentiality of individual participants, each participant was assigned a unique code number that can be used to identify the data collected from each participant.

The code number combined information about the group, the participant and the serial number of the participant in his group. Thus the first participant in the first group (group 1) was assigned the code G1N1 while the tenth participant in the same group was assigned G1N10 and so on. Also the first participant in the second group (group two) was assigned the code G2N1 while the tenth participant in that group was assigned G2N10 and so on. This coding system allows us to achieve two things that are germane to the successful analysis of the data. First confidentiality is safeguarded since no personally identifiable information about individual participants would be exposed and second we are able to match the data from the three research instruments (questionnaire, cloze task and picture stories) collected from individual participants without the use of individual names. Table 3.1 presents a summary of the sample population by groups. On this table you will find the following information: Participants' groups, the code numbers assigned to participants in each group, the total number of participants in each group, and the percentage of participants found in each group.

Table 3.1

Summary of Study Participants

Groups	Edu. Level	Code	Number	Percent
Group 1	4th Grade	G1N1-G1N30	30	17.6
Group 2	6th Grade	G2N1-G2N30	30	17.6
Group 3	JSS 2	G3N1-G3N29	29	16.9
Group 4	SSS 2	G4N1-G4N27	27	15.8
Group5	Yr 1	G5N1-G5N29	29	16.9
Group 6	Yr 3	G6N1-G6N26	26	15.2
Total	-	-	**171**	**100.0**

Notice that the participants in this study were not grouped into urban and rural dichotomy as was done in Upor (2009) which aimed to capture the effects of the difference in socio-economic status of the ESL learners on acquisition of tense-aspect morphology (As already discussed in chapter 2 (section 2.6.5), Upor (2009) collected the data from primary, secondary and University students in both the rural and urban areas in Tanzania). We were unable to do that principally due to logistic problems with regards to the amount of time available for the data collection and the finances available for this study. As a way around this problem and to test the same effects of socio-economic status, we included a question in the questionnaire that assessed, on a scale of one to ten (1-10), how often the participants used the English language at home. The assumption is that if one or both parents of the participants are educated to at least secondary school level, there is bound to be some degree of use of the English language at home. This connotes a social status located somewhere along the lower middle class (LMC). In the same way, if one or both

parents are educated up to the university level, there is bound to be some relatively high degree of use of the English language at home. This connotes a social status somewhere along the upper middle class (HMC). Conversely, if one or both parents are uneducated there is bound to be a very low degree of use of the English language at home and this connotes a social status somewhere at the bottom of the social class: the working class (WC). This assumption is founded on the observation that most people in the research area (Akwa Ibom State) associate English language with success and would make all effort to ensure that their children learn and speak the language including speaking it with them at home, in whatever form, if they know how to do so. The results of analysis of the participants' response to the question of how often they used English language at home is presented on figure 3.1 and it corroborates these assumptions by showing that the higher the level of education of the participants, the higher the degree of use of English language at home. Nevertheless, we recommend studies that would examine the urban-rural dichotomy in this research area wherever logistics permit. The following section presents details of participants selection, grouping and sampling techniques used in this study.

3.4 Sampling

The setting of this study is educational institutions in Akwa Ibom State of Nigeria and the major features or characteristics of the participants is that they be ESL learners who are Ibibio speakers and are currently studying in these educational institutions. However, this study may have implications beyond the confines of this specific research setting and population. Therefore to safeguard the validity and representativeness of the data to be collected from a sample of this population, specific sampling techniques had to be employed. This is because "the basis for generalization is the particular sample selected" according to Mackey and Gass (2005:119). Sampling refers to a definite plan for obtaining a sample from a given population. It refers to the

techniques adopted by this study in selecting items for the sample population (Upor 2009; Rubin and Babbie 2007). According to Mackey and Gass (2005), if any second language researchers consider generalizability or any form of implication of their research beyond their sample population, they must also consider the representativeness of the sample. Representativeness can be achieved through random sampling and non-random sampling techniques. Examples of random sampling techniques include simple random sampling, stratified random sampling and cluster random sampling. Examples of non-random sampling techniques include systematic sampling, convenience sampling and purposeful sampling. The simple random sampling is considered the best technique used to collect a representative data because it accords each individual in a population who could be selected for the study the same chance of being selected as any other individual in the population.

However, in this study we could not use the simple random sampling technique because the participants were preexisting intact groups and cluster random sampling was considered the most appropriate for the selection of individual classes to study while systematic sampling was considered appropriate for the selection of schools to study. Cluster random sampling is the selection of groups, in this case intact second language classes, rather than individuals while systematic sampling is the choice of every *nth* individual in a population list where the list should not be systematically ordered. With regards to the selection of schools to study, all the schools in the State were listed in a non-systematic way and according to their levels; so the primary schools, the secondary schools and the universities were each given a separate list. We then selected the *nth* individual from the list with two schools selected from the primary schools list, two from the secondary schools list and one selected from the universities list to a total of five schools.

With regards to the selection of classes within the schools, they were selected as groups. For example, the first school visited was a primary school and the target class was a primary 4 (4th grade) class. All the classes in primary 4 (five of them) were listed and one of them was selected using the *nth* individual technique and this was done in all schools visited. Inside the class there was no attempt by our research team to balance the number of students from class to class rather, with the help of the teacher, the students were asked to leave if they did not speak Ibibio as their L1. The assumption was that the differences in terms of the number of students in one class compared to another, the number of students whose L1 is Ibibio in one class compared to another and the balance between the male and the female students would not be significant since the classes preexisted organized along this dimensions.

The selection of which education grade level (4th grade, 6th grade, JSS 2 or 8th grade, SSS 2 or 11th grade, yr 1 and yr 3) to be included in the sample was not based on any sampling techniques rather it was based on other research and theoretical consideration. The sample extracted from the primary schools included primary 4 students (equivalent of 4th grade in the US) and primary 6 students (equivalent of 6th grade in the US) and they constituted groups 1 and 2 respectively. The decision to begin the sampling from primary 4 as opposed to primary 1, 2 or 3 was based on the results of previous studies on acquisitional sequences and temporal reference. Previous studies have shown that learners at the earliest levels of L2 acquisition of temporality do not exhibit tense-aspect morphology until later on in the acquisition process. At the earliest stages, learners have been reported to use a series of pragmatic means (scaffolded discourse, implicit reference, contrasting events, following chronological order in narration etc.) and lexical means (use of time adverbials of all sorts) of temporal reference. The use of verbal morphology as markers of temporal reference would emerge at the third stage during the acquisition process

(Meisel 1987; Schumann 1987; von Stutterheim 1991; Clark 1971; von Stutterheim & Klein 1987 etc). So this study assumes that since primary 4 students have received instructions in ESL for about three and a half years and based on the quality of instruction and the cognitive development of the learners, they should begin to exhibit verbal morphology in their interlanguage.

Another factor considered in the choices of the samples was prototypicality of the samples from each education level as representatives of their categories; that is, that education level. Research into prototypical theories of categorization reveals that specimens or exemplars at the center of a category are more prototypical of that category than those at the fringes because they exhibit more characteristic similarities with other members of the categories than specimens at the fringes (Wulff, S. et al. 2009; Ellis 2002, 2006b, 2008 etc). This means that primary 4 students are more prototypical students in the primary schools than, say, primary 1 or primary 6 students who are at the fringes of the primary education. However, our sample included primary 6 students as group 2 because primary 5 students may not exhibit a significant difference in their acquisition of verbal morphology from students in primary 4 and therefore would not make for a reasonable comparison. This is because the contents of instruction given to two contiguous levels of education may not be significantly different. The same principles guided the selection of samples from secondary schools where we have JSS 2 (equivalent of 8^{th} grade in the US) as our group 3, SSS 2 (equivalent of 11^{th} grade in the US) as our group 4. Groups 5 and 6 in our sample were selected from a university with group 5 constituting students from year 1 (equivalent of freshmen in the US) and group 6 consisting of year 3 students (equivalent of juniors in the US). The same principle for selection as described above applied to the selection of year 3 students for our group 6 but year 1 students were selected because year 2 students may not exhibit a

significant difference in the level of acquisition of tense-aspect morphology and therefore may not have provided a reasonable way of assessing the difference in proficiency levels. The next section presents a description of the research area from where the research population was sampled.

3.5 The Research Area

This research was conducted inside the classrooms in educational institutions in Akwa Ibom state of Nigeria. Nigeria is a country located in the Western coast of Africa; at the inner corner of the Gulf of Guinea and occupies an area of 923,768 square kilometers (sq km) (356,669 square miles sq mi), extending 1,127 kilometers (700 miles) from east to west and 1,046 kilometers (650 miles) from north to south. Comparatively, the area occupied by Nigeria is slightly more than twice the size of the state of California. It is bordered by Chad on the northeast, by Cameroon on the east , by the Atlantic Ocean (Gulf of Guinea) on the south , by Benin Republic (formerly Dahomey) on the west , and by Niger Republic on the northwest and the north. The country has a total boundary length of 4,900 kilometers (3,045 miles), of which 853 kilometers (530 miles) is coastline (Encyclopedia of Nations Published online at http://www.nationsencyclopedia.com/Africa/Nigeria). The Nigerian population is estimated to be about 140,000,000 people according to the 2006 Nigerian national population census although the CIA (United States Central Intelligence Agency) world feedback projection estimated the population to be about 149,229, 090 in 2009. Apparently this is an enormous area to cover so this project selected a region of the country for study-Akwa Ibom State.

A lot have already been said in Chapter one section 1.7 about Akwa Ibom State of Nigeria and the Ibibio people from among whom the research population has been sampled. Nevertheless,

statistical information about Akwa Ibom educational system is worth mentioning at this point. At the time of this study there were a total of 1,146 primary schools, 228 secondary schools and 4 tertiary institutions distributed across the thirty one Local Government Areas of the State. The school enrolment at the primary schools at the time of this study was as follows: the male students' population was estimated to be 395,438.00 and the female students' population was noted as 408,235.00 for a total of 803,673 students. The population of teachers in the primary schools was estimated to be 14,686.00 showing a teacher-student ratio (TSR) of 0.0182. The school enrolment at the secondary schools at the time of this study was as follows: the male students' population was 120,237.00 while the female students' population was 134,805.00 for a total of 255,042.00 and the population of teachers in secondary schools was 7,533 for a teacher-student ratio (TSR) of 0.029. Enrolment in the tertiary institutions was also in tens of thousands (AKSME 2011; FME 2005; NPE 2004; AKTWELLS 1991; SSEB 1999; TRCN 2004).

As per the policies that govern the roles and status of languages in educational system in the State (the State policy on language in education), the national policy on language in education applies in the State. The national policy on language in education recognizes the multidimensional, multi-lingual three tier political polity of the country. It therefore advocates multilingualism as a national goal while recognizing the English language as the official language in the bureaucracy of all tiers of formal education in the country. The policy treats Hausa, Igbo and Yoruba as potential national languages which are to be developed and used as L1 and L2 all through the formal educational system. The policy also recognizes all Nigerian languages as meaningful media of instruction in initial literacy, in life-long learning and non-formal education. The policy makes these specific stipulations on language use in education in the country. (1) Mother-Tongue (MT) and/or the Language of Immediate Community (LIC) will

be the Language of initial literacy at the pre-primary and junior primary levels and in adult and non-formal education. (2) The three major languages-Hausa, Igbo and Yoruba are L2 and languages of national culture and integration. (3) The English language (the official language) is the medium of instruction beginning from senior primary education to secondary and higher education. (4) Selected foreign languages especially French and Arabic to be taught as school subjects to safeguard international communication and discourse (Emenanjo, E. N 1998 cited in Jubril 1986). It is important to add that participants in this study were sampled only from schools directly affected by the provision of this national language policy (i.e. public schools) because they constituted the bulk of educational institutions in the research area. This means that no participants were sampled from any private schools (i.e. the so-called English medium schools) in the research area.

The implication of these provisions to the research area and to this study is that at the time of the research group one (the lowest level of education sampled in this study) has already begun the transition from mother-tongue (Ibibio language) medium of instruction to English as a medium of instruction and as a subject of studies throughout the educational institutions in the State.

The guidelines for the English language pedagogy in the State in terms of the curriculum of studies are provided by the Nigerian Educational Research and Development Council (NERDC) a federal government agency responsible for the provision of such curriculum in all subjects of studies to all the 36 states in the country. This centrality has often resulted in infrequent review of the curricula. For example, according to the 2006 NERDC publication, since independence in 1960, the English language curricula at the primary and secondary schools have been comprehensively reviewed once. The primary school curricula in particular have remained static since the 1980's when they came into existence. According to the NERDC 2006 publication, the

review has been long overdue as echoed in various studies and conference reports. Such conferences include the National School Curriculum Review Conference (1991), the Monitoring of Learning Achievement Survey (1994) and the National Feedback Conference on School Curricula (1999).

This led the NERDC to convene a meeting of experts in May 2001 to develop guidelines for updating the scope and relevance of the school curricula. The effort culminated in a comprehensive review of the national curriculum on English studies for primary and secondary schools in 2006. The goal of this review was to ensure curricula depth, appropriateness and relatedness of contents across the different educational levels (primary and secondary) and to bring the contents of the curricula in line with emergent global issues like drug abuse, environmental education, sexuality education and HIV/AIDS and other contemporary national and international issues. However, the curriculum presented by NERDC was to provide only the minimum content of what should be taught in Nigerian primary and secondary schools. Teachers in the different states and Local Government areas are free to draw from their immediate environment for additional materials. The contents of the reviewed curriculum as it pertains to the teaching and learning of tense-aspect morphology are presented on table 3.2 organized in education levels as sampled for this study.

Table 3.2: Curriculum for English Studies Showing Evidence of Instruction on Tense-Aspect Morphology in Educational Institutions in the Research Area

THEME: GRAMMATICAL ACURACY

Group	Topic	Performance Objective	Content	Activities Teacher	Activities Pupil	Teaching and Learning Material	Evaluation Guide
Group 1 4th grade	Past tense and Past continuous tense (contd)	Pupil should be able to: 1.distinguish between past tense and past continuous forms 2.make sentences using past tense and past continuous 3.identify the two tenses	Past tense and past continuous e.g. I ate I was eating	1.Explains when to use the two forms 2.Gives examples 3.Asks pupils to give their own examples	Make their sentences with past and past continuous forms	1.Course book 2.Substitution tables	Pupils to: 1.Distinguish between past tense and past continuous forms. 2.Make sentences using past and past continuous 3.Identify the two tenses.
	Question tags: using modal auxiliaries e.g. can, may, will and shall	Pupils should be able to: 1.make sentences with 'will','shall' and 'may' in them. 2.use the tags in asking questions.	Correct forms of 'will', 'shall' and may in question tags	1.Lets pupils use 'shall', 'will', 'may' correctly e.g. I shan't come today, shall I? You will, won't you? You won't, will you?	1.make sen-tenses using 'will', 'shall' 2.Answer questions from the teacher.	1.Substitution table 2.course book 3.Teacher guide	Pupils to: 1.make correct sentences with 'will' 'shall' and May in them.

THEME: STRUCTURE

Group	Topic	Performance Objective	Content	Activities Teacher	Activities Pupils	Teaching and Learning Material	Evaluation Guide
Group 2 6th grade	Review of verb forms	Pupils should be able to: 1. Differentiate types of verbs in relation to time. 2.use the various verb forms previously learnt.	Review of verb forms examples: a. tell, tells, telling, told, told. b. go, goes, going, went, gone. c. cut, cuts, cutting, cut, cut. d. eat, eats, eating, ate, eaten. e. come, comes, coming,came	1.Give examples using appro-priate verb forms. E.g. a.I eat rice every Day b.He goes to school on a bike c.They have finished the food d.She is going to the church e.Yesterday, I forgot to read the newspaper	1.Listen attentively to the teacher. 2.Give examples of the various verb forms 3.Use them in sentences	1. Word cords 2. Flash cards 3. Flannel board 4. Course book	Pupil to: 1.Use the appropriate verbs in sentences

THEME: GRAMMATICAL ACCURACY

Group	Topic	Performance Objective	Content	Activities Teacher	Activities Students	Teaching and Learning Material	Evaluation Guide
Group 3 8th grade	Adverbials and tense	Students should be able to: 1.Identify the adverbials in the passage. 2.Make sentences with adverbials 3.Identify the different tenses in the passage. 4.Make sentences the tenses correctly	Passages on: -my computer -our culture -human right –indiscipline highlighting adverbials and tenses: a)adverbials of cuase and reason- e.g. "because" b)purpose e.g. so that condition-e.g. 'if' c)contrast-e.g. although Tenses-e.g. present, past and future	1.Leads students to read the passage 2.Leads them to discuss the passage 3.Guides them to identify the adverbials 4.Leads them to make sentences with adverbials Leads them to identify the tenses	1.Read passage 2.Discus the passage 3.Identify adverbials 4.Make sentences with adverbials 5.Identify the tenses 6.make sentences using the correct tenses	1.Given passage 2.Manuals 3. Texts 4. Sentence strips 5.Course book 6. Story books 7.Magazines and news-paper cuttings	Students to: 1. identify adverbials correctly 2. Make correct sentences using adverbials 3. Identify the tenses correctly 4. Make sentences using the correct tenses

Source: 9-Year Basic Education Curriculum for English Studies Published by Nigerian Educational Research and Development Council (NERDC) 2006.

The table in 3.2 is organized into eight columns from left to right. Column one shows the group of participants in this study to which the curriculum applies. Column two shows the particular topic treated in the curriculum for that group while column three shows the performance objectives; what the learners are expected to achieve at the end of the coverage of the material in the curriculum. Column four shows examples of the specific contents of the teaching and learning material. Column five displays the teachers' activities as guidelines on what the teachers are expected to do in the classroom during the presentation of the learning material. Column six displays the students' activities showing how the learners are expected to respond or react to the presentation of the material in the classroom. Column seven shows examples of the suggested teaching and learning material to be used while column eight shows the guidelines on how the students would be evaluated by the teachers. This, in my opinion, represents a well articulated program of study for the English language pedagogy in the country. But the questions that are begging for answers include how the provisions of the curricula would be implemented and who would monitor implementation to ensure quality. Another is what would be done to motivate the teachers and the students who are the end users of these provisions. In the next section we present a description of the research instruments and the kinds of data each of them was expected to elicit from the participants in this study.

3.6 The Research Instruments and the Data Collection Procedure

Research instruments refer to the specific data elicitation tools designed by the researcher with the aim of eliciting specific kinds of data from the research participants. In the study of acquisition of tense-aspect morphology, scholars have devised various methods and tools for data elicitation. These include both oral and written personal and impersonal narratives, written cloze passages and grammaticality judgment tests (Bardivi-Harlig & Bergstrom 1995). All data

collection instruments have their strengths and weaknesses. This has informed scholars to use a combination of two or more of these instruments in order to highlight the strengths of one and complement the weaknesses of another. For example, oral narratives in the form of film or movie retell tasks have the potential of not being influenced by the research design but have the weakness that the learners may be affected by scaffolding during the retell. Scaffolding may result from the ensuing interaction between the learners and the research personnel. Also, oral narratives are difficult to transcribe and therefore do not enable the sampling of large population of learners necessary for statistical analysis of the data (Salaberry 1998, 1999b; Bardovi-Harlig 1995a, 1998).

There were two major experimental tasks employed in this study. In the first task this study used a set of picture stories to elicit impersonal narratives from the participants and in the second task we used a cloze task. In addition, a third activity was included where the participants were required to fill out a questionnaire that collected their demographic information (age, gender, other languages spoken by the participants apart from the L1 and L2), and information on participants' language use (language use at home; how often English is used at home).

3.6.1 The Picture Stories

The picture stories were excerpts from the book *Picture Stories* written by Radlov (1960). Three different excerpts from the book were selected for the three levels of education sampled. These included "Two Foolish Goats" (see Apendix A) selected for the participants in primary schools which constituted groups 1 and 2, "Toy Rat" (see Apendix B) selected for the participants in secondary schools which constituted groups 3 and 4, and "Bad Luck" (see Apendix C) selected for the participants in universities which constituted groups 5 and 6 in this study. These set of

picture stories have already been used in the African context in Upor (2009) and it recorded a tremendous degree of success. The book contains child friendly picture stories full of fun and mischief and surprises. The stories are wordless (contains only a series of pictures) and allows the participants to make up their stories but on the same topic and contents for ease of analysis and comparability.

We agree with Upor (2009:117) on the reasons why these set of picture stories may make an ideal instrument for data collection among participants in African context. First, we couldn't use movie retell used by most research on acquisition of tense-aspect morphology in this context because of logistic bottle neck occasioned by poor state of infrastructure in both the primary and the secondary schools in the research area. Second, the picture stories were selected based on the fact that both the research team in this study and the learners are familiar with the contents of the stories to safeguard content reliability of the research instrument (Gass and Mackey 2008; Bardovi-Harlig 1995). Especially, Bardovi-Harlig (1995) asserts that the use of a story whose contents is familiar to both the narrator and the researcher facilitates ease and reliability of the research data analysis. Third, the picture stories are open-ended tasks that require the learners to write a narrative about the picture but from an individual perspective. This encourages creativity on the part of the learner. Finally, this instrument is expected to, among other things, show the research team in this study the actual verb types acquired by the learners at various education levels and also capture possible L1 effects due to the possible differences in rhetorical styles and narrative styles occasioned by the structural (morphological and syntactic) differences between the participants' L1 and l2.

3.6.2 The Cloze Task[28]

The second research task completed by the participants was a cloze test. A cloze test (also called cloze deletion test) (see Appendix D) is an exercise, a test or an assessment consisting of a portion of the text or narrative with certain words removed (e.g. the verbs). The participant is asked to replace the missing words, forms of words or parts of a word (Sachs, et.al 1997). The cloze tests require the ability to understand contexts and vocabulary in order to identify the correct words or types of words that belong in the deleted passages of a text. In this study, we provided the base form of the verbs and the participants were required to provide the correct tense-aspect marking on the appropriate verbs in the appropriate contexts if they knew same (Ayoun & Salaberry 2008). Before administering the test, we had to cross-check the level of vocabulary used in the story told on the test with the teachers at the lower levels of education to ensure that the vocabulary were at the level suitable for the participants. This was done to safeguard the content reliability of the test.

However, the data elicited through the cloze[29] test was included in this study due to the shortness of time needed to complete this study and the methodical fact that the cloze test does not really show the actual verb types acquired by the learners at particular levels or point in their acquisition process. In spite of this weakness, cloze test has the potential to provide a balanced supply of verbal items belonging to the four lexical aspectual classes of verb (states, activities, accomplishments, achievements) which the written narrative test may not and this facilitates comparability across lexical aspectual classes. However, we have resolved to also use the within-category analysis that has the potential to level this shortcoming in the written narratives.

[28] The cloze task is introduced because it is one of the research tasks completed by the participants.
[29] We introduce and discuss the cloze task because we feel that we need to report on all the research tasks performed by the participants during the data collection period though we do not intend to use the data collected with the cloze task in this study. However, we hope to use the data collected with the cloze task in future studies.

3.6.3 The Questionnaire

A questionnaire is a research instrument used in eliciting data from the participants in a research situation. It has the potential to collect data from a large number of participants at a very short period of time and the questions included in a questionnaire depend on the immediate needs of the investigator and the research questions. The major purpose of the questionnaire in this study was to collect the data on the history of the participants on their learning of the English as a second language and to assign a code for all the data collected from an individual. The questionnaire was organized into two parts (see Appendix D) with the first part containing questions designed to elicit demographic information on the participants. Such information included the age, the gender and the other languages spoken by the participants apart from the L1 and the L2. Table 3.3 presents a summary of the demographic information by groups of learners.

Table 3.3: Summary of Participants' Demographic and Biographic Information on Number of Languages Spoken

Groups	**Demographics**		**First language**		**# of Other Languages Spoken**				**Total**
	Average Age	Ratio of M-F	Ibibio as L1	Other Langs Spoken as L1	1Lang	2Langs	3Langs	4Langs	
Group 1	10.0	.611	29	0	29	0	0	0	29
Group 2	10.2	.875	30	0	30	0	0	0	30
Group 3	12.3	.035	29	0	29	0	0	0	29
Group 4	15.3	.500	27	0	24	0	3	0	27
Group 5	21.4	.785	25	0	13	9	2	1	25
Group 6	23.8	1.00	25	1	8	14	4	0	26

Table 3.3 is organized into five main columns. Column one shows the participants' groups and column two shows the demographic information on age (averages only) and the ratio of male to female participants. Column three shows the languages spoken as L1 by the participants. The

distribution shows that all but one participant claimed to speak Ibibio as their L1 and the data elicited from that one participant were not included in subsequent analyses. Column four shows the degree of linguistic diversity among participants and the distribution shows that the participants become more linguistically diverse as their level of education increases. Participants in groups 1-3 (the lower levels) speak only one language excluding the English language while participant in groups 4-6 (higher levels) have members who speak up to four languages. The last column shows the total number of participants in each group who completed this part of the questionnaire. Table 3.4 presents an inventory of all languages spoken by participants by groups.

Table 3.4: Summary of Distribution of Languages among Participants by Groups

Participants	Languages	L1	L2	L3	L4
Group 1	*** English	0	29	0	0
	*Ibibio	29	0	0	0
Group 2	***English	0	30	0	0
	*Oro	0	0	1	0
	*Ibibio	30	0	0	0
	** Igbo	0	1	0	0
Group 3	***English	0	29	0	0
	*Ibibio	29	0	0	0
Group 4	***English	0	27	0	0
	***French	0	0	2	0

Participants	Languages	L1	L2	L3	L4

	*Ibibio	27	0	0	0
	**Igbo	0	0	1	0
Group 5	*Annang	0	0	3	0
	***English	0	20	3	0
	***French	0	0	4	1
	*Ibibio	25	0	0	0
	**Igbo	0	3	1	1
	**Yoruba	0	2	1	1
Group 6	* Annang	0	1	0	1
	*Eastern Obolo	0	1	0	0
	**Efik	0	0	2	0
	*Ekit	0	0	1	0
	***English	0	16	3	0
	***French	0	1	4	1
	**Hausa	0	1	0	0
	*Ibibio	25	0	0	0
	**Igbo	0	1	2	0
	*Oro	0	1	1	0
	**Yoruba	0	4	1	0

The languages on table 3.4 are arranged in alphabetical order within each group showing the distribution of languages spoken by participants from that group. Within each group, the

languages that are indigenous to the state are preceded by one star and the languages that are not indigenous to the state but are indigenous languages in other states in the country are preceded by two stars while languages that are neither indigenous to the state nor the country (foreign languages) are preceded by three stars. The distribution shows that all participants claim to speak Ibibio as their L1 and other indigenous ethnic community languages spoken within the state as either L2, L3 or L4 depending on the order that they arranged these languages in response to the questionnaire prompt. The distribution also shows that participants claimed to speak languages that are indigenous to other states especially the three major Nigerian languages. It also shows that English is not the only 'foreign language' taught in schools in the state; French is also taught. But one thing to note about this distribution of languages is that the linguistic situation becomes more diverse as the participants' level of education increases. For example, participants in group 1 claimed to speak only two languages (Ibibio and English) while participants in group 6 claimed to speak eleven languages.

The second part of the questionnaire was designed to elicit the data on the degree to which the participants used the English language outside the classroom; the degree of use of the language at home. One of the questions in this section asked whether the participants used English at home with a 'Yes' or 'No' answers expected. If the answer was a 'Yes', the next question prompted the participants to rate the degree of usage of the English language at home on a scale of 0-10 with a 10 meaning that the participants used the language a 100% of the time, a 9 meaning 90% of the time and so on. The distribution of participants according to the percentage of English language used at home is presented on table 3.5 below.

Table 3.5: Distribution of Participants According to Percentage of English Used at Home by Groups

Participants		Percentage of Language Use											
		0	10	20	30	40	50	60	70	80	90	100	Total
Group 1	#	7	3	5	2	4	1	1	2	3	1	0	29
	%	24.1	10.3	17.2	7.0	13.9	3.4	3.4	7.0	10.3	3.4	0	100
Group 2	#	5	5	5	3	0	2	1	0	4	2	3	30
	%	16.7	16.7	16.7	10	0	6.7	3.3	0	13.3	6.7	10	100
Group 3	#	1	6	2	2	2	6	1	2	4	0	0	26
	%	3.8	23.1	7.7	7.7	7.7	23.1	3.8	7.7	15.4	0	0	100
Group 4	#	5	0	0	1	0	2	1	2	5	5	6	27
	%	18.6	0	0	3.7	0	7.4	3.7	7.4	18.5	18.5	22.2	100
Group 5	#	7	0	1	1	3	7	0	1	3	1	1	25
	%	28	0	4	4	12	28	0	4	12	4	4	100
Group 6	#	1	0	0	0	1	6	3	5	5	2	3	26
	%	3.8	0	0	0	3.8	23.1	11.6	19.2	19.2	7.7	11.6	100

Table 3.5 presents information on the use of the English language at home in 7 rows with the first row showing the predetermined percentage rate as included in the questionnaire. Rows number 2-7 show the groups of participants who used English at home beginning from group one in the second row to group 6 in the seventh row. Within the groups, the numbers on top represent the actual number of participants while the number below is the percentage rate. For instance, in group 1 the number on top shows that 7 participants in that group do not use the English language at home while the number below shows that 24.1 percent of the participants in this group do not use English at home. If we assume that 50% to 100% represents a higher use of the

English language at home while 0% to 40 represents a lower use, we can make the following observation based on the distribution on this table. The learners at lower levels of education claimed lower percentage usage of English at home with 72.5%, 61.1% and 50% of participants in groups 1, 2, and 3 respectively showing the claim of 0% to 40% use. The learners at higher levels of education claimed higher percentage of use with 77.7%, 52% and 92.4% of participants in groups 4, 5 and 6 respectively showing the claim of 50% to 100% use. This observation can be illustrated more clearly in figure 3.1 below.

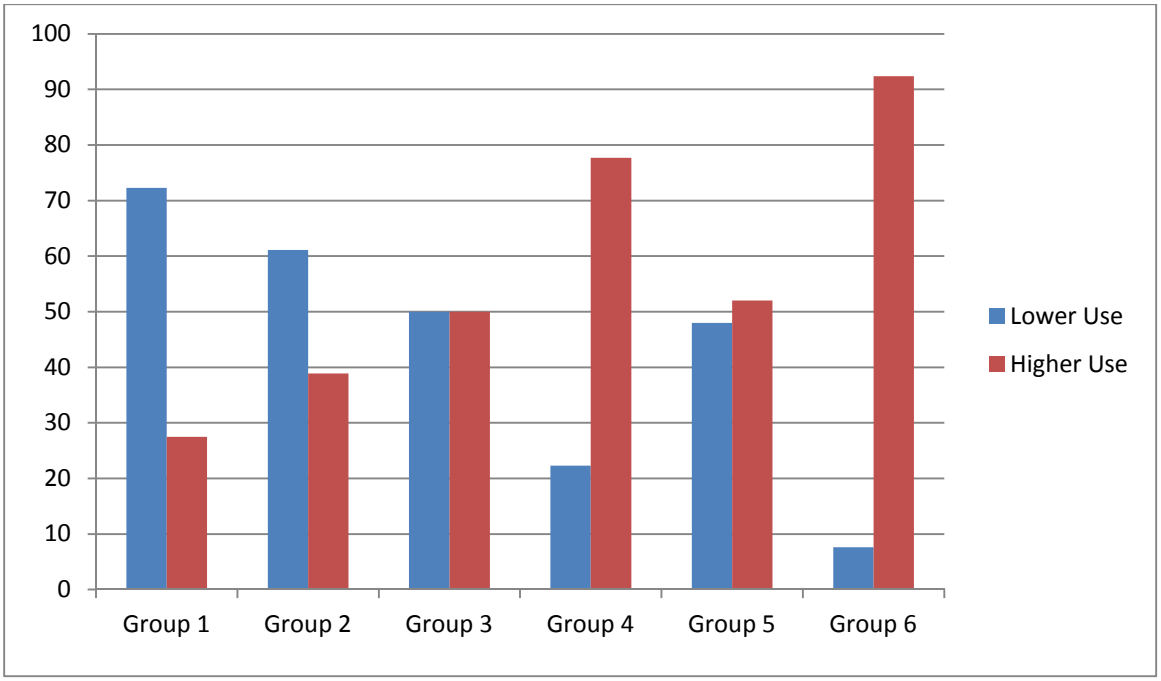


Figure 3.1: Mean comparison of Lower and Higher Use of English by Groups

Now the questions that need to be answered in this study are: Will the higher percentage rate of use of English at home by participants in the higher education levels translate to higher rates of appropriate use of the past tense-aspect morphology. Will the lower rates of use of the same by participants at the lower levels of education translate to lower rates of appropriate use of the past tense-aspect morphology? We expect to find answers to these questions in the next chapter of

this study but for now we discuss the administration of the research instruments and the data collection procedure.

3.6.4 Administration of Research Instruments

Prior to conducting any research activities in any of the schools sampled our research team had to seek authorization from the appropriate school authorities. Informed consents had to be sought from the participants themselves or their parents where the participants were minors (samples of parental permission form, minor assent form and informed consent form are included in the Appendix). Letters of authorization were obtained from the Local Education Secretaries in the Local government Areas where the primary and the secondary schools sampled were located and from the principals of each of the schools. At the university, the authorization was obtained from the Head of Department whose students were included in the study. It was relatively easy to obtain these permissions because the research was conducted inside the classrooms and during the normal school hours for English studies thereby involving no displacement of students either in time or in space.

The completion of the questionnaire was the first task assigned and the students were given 10 to 15 minutes to complete this task. The students were then asked to keep the completed questionnaire on their desks and to copy a randomly pre-assigned code number from the questionnaire onto all other research instruments and tasks. The picture stories narratives were assigned next and participants were given about 45 minutes to complete the written narratives. Finally, the cloze task was assigned and participants were given about 30 minutes to complete the task. Overall, all the research tasks were performed in about 90 minutes.

3.7 Data Coding and Analysis Procedure

Once data for this study was successfully collected it became necessary to organize them into a manageable, easily understandable and analyzable base of information. This task had to start from coding the data for both the verbal morphological contents and the lexical aspectual contents. Coding, according to Mackey and Gas (2005:221), "involves making decisions about how to classify or categorize particular pieces of or parts of the data". It involves looking for and marking patterns in the data. Also, Mackey and Gass (2005) admonished researchers to pay attention to Orwin's (1994) comment when preparing for data coding. Orwin (1994:140) characterized coding as an attempt to reduce a complex, messy, context-laden and quantification resistant reality to a matrix of numbers; the form that is amenable to quantification.

3.7.1 Coding for Verbal Morphology

Before the data was collected several measures were put in place to ensure that the data to be collected and coded for analysis was valid and reliable. Such measures included the painstaking discussion of the research instruments and instrument administration procedure by our advisory committee members to ensure instrument reliability. In addition, we selected different sets of picture stories for different levels of education based on the complexity of each set. We painstakingly consulted with the classroom teachers about the familiarity of the characters (the participating animals in the stories) to the participants. The relevance of the contents of the stories to the L2 learners was also checked in order to ensure content reliability. Also, this study together with the classroom teachers selected the time for the administration of the instruments to coincide with the English studies hour for the class to further enhance content relevance. Above all, this study chose a set of instruments that have been used by another researcher in a similar kind of research setting with tremendous success (acquisition of English as a foreign language in

African context, Upor 2009). This choice has the potential to; (1) eliminate the need for a pilot study to test the reliability of the research instruments; (2) enhance comparability of research results in second language acquisition research and; (3) enhance replicability of research procedures to ensure reliability and consistency of research results in the field of second language acquisition studies. This facilitates the application of research findings in pedagogy.

This study took all these facts into consideration during the coding of the data for verbal morphology as decisions had to be made on what forms to be included in the analyses and what form to be excluded and why. Structures that have the same form for both the past and the base forms were not included in the analysis because it was difficult to decide whether the learners have marked the past or not since there is no morphological evidence. These included forms like "set up" (G5N17[30]), "set in" (G5N17), "set out" (G5N18, G6N3), "put" (G5N1), "let" (G6N3). Uninterpretable forms such as "were stracing" (G3N7), "expered" (G3N22), "was been", "was endorsed in a bottle" (G6N3) were coded as "uninterpretable" and quotatives such as "it is over" (G5N29) were excluded from the analysis.

Other coding decisions were made regarding reduplicated forms and serial-verb-constructions. This study decided to treat forms like "fighting and fighting", "fought and fought", "run and run and run" (G4N18), "struggle and struggle" as one predicate to avoid inflating the number of propositions in the analysis. Also treated as one predicate for the same reason were synonymous predicates coordinated by "or" such as "making or molding the rat toy" (G3N2) if they belonged to the same lexical aspectual class. Also, forms like "start/ed fighting" (G1N1, G1N5) were treated as one predicate because the form "fighting", for example seems to be a nominalized form (gerundive form) and seems to be a direct translation from equivalent nominalized forms

[30] The combination of numbers and letters in parentheses represent the code number of the participants whose narratives the form was extracted. For example, G5N17 means that the form was extracted from group 5 participant number 17 in that group.

from the learners' L1. However, forms like "start/ed to fight" (G1N4, G1N2) were treated as two predicates consisting of the main clause and the infinitive clause with the syntactic "big PRO" as the subject of the infinitive clause. Decisions were also made regarding over-generated forms and doubly-marked forms. For the former, forms like "to brought" (G6N20), "to removed" (G6N16), "to reached" (G6N4), "to killed" (G5N20), "to caught" (G4N28), "to found" (G5N26), "caughting" (G4N26), "could arrived" (G5N2), "could not picked" (G5N6) were treated as suppliance in non-obligatory contexts. Doubly marked forms like "strucked" (G5N23), "sanked down" (6N13) were excluded because when it came to deciding whether they were irregular past marked or regular past marked they were uninterpretable.

Furthermore, for repeated structures that constituted only one proposition but included in the same clause like "…they struggled but they couldn't pass…the struggled but they couldn't." (G2N26) only one was included. This was done in previous studies such as Bardovi-Harlig (1998:243) where repeated forms like "policeman take him, take him to…" was counted only once. Also, spelling errors were not penalized and therefore were included as long as we were able to use contexts to deduce the verbs or predicates intended by the learners. Therefore forms like "once" in the context "once to cross a water" (G1N1) were interpreted as "wants" as in "wants to cross a water". This is also in line with similar practice in previous studies (Bardovi-Harlig 1992c,b, 1994a, 1998). For example Bardovi-Harlig (1998:243) included misspelled forms like "cot/caut" found in learners' narratives in contexts intended for the form "caught". In all, the verbal predicates in this corpus were coded into these major categories; the past, the past progressive, the past perfect (pluperfect), the present, the present progressive and the present perfect.

3.7.2 Coding for Lexical Aspectual Classes

Verbal predicates in the learners' narratives needed to be classified into their respective lexical aspectual classes for the sake of providing the basis for the quantitative analysis of the data. Standardized operational or diagnostic tests for classification of verbs into lexical aspectual classes have been designed and used in previous studies that tested the effects of lexical aspect on acquisition and distribution of tense-aspect morphology (Vendler 1967; Dowty 1979; Andersen and Shirai 1994, 1996; Shirai and Andersen 1995; Robison 1990, 1995a; Shirai 1991 etc). According to Bardovi-Harlig (2000: 220), "studies of four target languages –English, French, Spanish, and Japanese-have published the diagnostic tests used on interlanguage samples" (for English see Bardovi-Harlig and Bergstrom 1996; Bardovi-Harlig 1998; Robison 1990; for French see Bergstrom 1995; for Spanish see Hasbun 1995 and for Japanese see Shirai 1995).

The version of the diagnostic test used in this study has been used in Shirai and Andersen (1995); Upor (2009); and is based on Dowty's (1979) tests. It classifies the verbal predicates into the Vendler (1967) aspectual classes-statives, activities, accomplishments and achievements. This study had to train the interraters employed to assist in the classification of the verbal predicates on how to use the diagnostic tests presented below.

Step 1: State or nonstate

Does it have a habitual interpretation in simple present?

If no ⟶ State (e.g., *I love you*)

If yes ⟶ Nonstate (e.g., **I eat bread**) ⟶ Go to step 2

Step 2: Activity or non-activity

Does 'X is V-ing' entail 'X has V-ed without an iterative/habitual meaning? In other words, if you stop in the middle of 'V-ing, have you done the act of 'V'?

If yes ⟶ Activity (e.g., run)

If no ⟶ Non-activity (e.g., run a mile, build a house) ⟶ Go to step 3

Step 3: Accomplishment or achievement

[If test (a) does not work, apply test (b) and possibly test (c)]

(a) If 'X V-ed in Y time (e.g., 10 minutes), then 'X was Ving during that time'.

If yes ⟶ Accomplishment (e.g*., he painted a picture, He built a house*)

If no ⟶ Achievement (e.g., *He noticed a picture, He recognized the king*)

(b) Is there ambiguity with *almost*?

If yes ⟶ Accomplishment (e.g., *He almost painted a picture* has two readings: He almost started to paint a picture/He almost finished painting a picture)

If no ⟶ Achievement (e.g., *He almost noticed a picture* has only one reading)

(c) "X will VP in Y time (e.g., 10 minutes" = "X will VP after Y time").

If no ⟶ Accomplishment (e.g., *He will paint a picture in an hour* is different from *He will paint a picture after an hour* because the former can mean that he will spend an hour painting a picture, but the latter does not)

If yes ⟶ Achievement (e.g., *He will start singing in two minutes* can only have one reading, which is the same as He will start singing after two minutes, with no other reading possible).

In using this diagnostic tests to classify the verbal predicates into lexical aspectual classes the research team in this study strictly considered the contexts where the learners used each predicate and trained all interraters employed to do the same. The reason is that contexts play decisive

roles in determining the telicity of verbs in the English language and other languages. This is a departure from the practice in some previous work in the literature. For example, Wulf et al. 2009 striped the verbs of all contextual connections and presented the base forms of the 86 verbs to the participants for telicity rating. Other researchers like Robison (1990) used the infinitive forms of the verbs for the lexical aspectual classification such that verbs like "run" in the context "run around" would be listed as "to run" and assigned to the class "activity". In the same way, the same verb "run" in the context "run a mile or run to school" which is clearly used as accomplishment would be listed as "to run" and erroneously assigned to the same class of "activity". In my opinion, this is an important pitfall and one to which researchers should pay careful attention as was done in this study. In this study, for example, the verb "ran" in the context "ran away" (G6N30) was classified as "activity" while the same verb form "ran" in the context "ran into the bottle" (G6N28) was classified as "accomplishment" because the proposition "run into the bottle" entails a process but with a clear endpoint.

For this study a native speaker of English, also a Ph.D. student in Linguistics was employed as interrater and trained by the project to perform the classification. The interrater independently classified 100% of the data. In addition, I also performed the classification on a 100% of the data. I was involved because to check the reliability of the classification system, we needed to compare both the native speaker's and the non-native speaker's perspectives. Furthermore, I was involved because being a native speaker of the learners' L1 gives me the ability to decipher contextual information and other nuances of each verbal predicate. Comparing this to the native speaker's decision apparently strengthens the validity of the interrater reliability check presented on table 3.6 below.

Table 3.6: Holsti's Coefficient of Reliability

Aspect	Rater 1	Rater 2	Agree	2Agree	N1+N2	Holsti's C.R.
ACC	168	246	165	330	414	0.797101
ACH	868	798	795	1590	1666	0.954382
ACT	528	520	517	1034	1047	0.987584
ST	643	642	642	1284	1285	0.999222
Different			87		**Average CR**	0.934572
	2207	2207	2207			

Table 3.6 shows an average coefficient of reliability to be 93% and the break down shows that the two interraters agreed 79 % of the time on accomplishment verbs, 95% on achievement verbs, 98% on activities and 99% on stative verbs. An average of 93% coefficient of reliability shows that the classification system used in this study was highly reliable, effective and capable of enhancing a productive data analysis.

3.7.3 Units of Measurement

For quantification purposes, the data had to be assigned some units of measurement and we selected Suppliance in Obligatory Contexts (SOC) as the unit of measurement for this study. The SOC is a method of quantification used to determine whether the learners had acquired a particular grammatical morpheme. It has been widely used in many previous studies of second language acquisition to estimate an L2 learner's accuracy level (Brown 1973; Andersen 1978; Bardovi-Harlig 1998, 2000; Ayoun and Salabery, 2008; Upor 2009 etc).

In the use of SOC, some researchers predetermine whether or not "Standard English" requires a particular morpheme by identifying the obligatory contexts for that morpheme and checking whether it has been correctly supplied by the learner or not (Gass and Selinker 2008). This has

resulted in their being criticized for committing what Lardiere (1998a, 2003) call "comparative fallacy" because they tend to create obligatory contexts based on "Standard English[31]" which might not be related in any way to the actual contexts created by the learners in their L2 performances. To avoid this, obligatory contexts in this study was determined based solely on the contexts created by the participants in the narratives and not in comparison with any native speaker standard. This was particularly important bearing in mind that the Standard Nigerian English (SNE) may be different from the Standard American English (SAE) in some ways. Such differences may not be in terms of the basic syntactic structure as stated earlier in chapter one but in terms of the nuances of narrative structure and the lexical semantic undertones of such nuances.

The formula for calculating SOC following Brown 1973; Robison (1990), Bardovi-Harlig (2000), Shirai (2007) etc. is as follows.

$$\text{Formula} = \frac{\text{number of correct suppliance x 2 + number of misformations}}{\text{Total obligatory contexts x 2}}$$

However, SOC has been criticized for its failure to consider over-suppliance of a morpheme in non-obligatory contexts (Andersen, 1978; Hatch, 1978a; Pica, 1983). If the morpheme is over-supplied or overgeneralized, SOC will overestimate the learner's accuracy. So, suppliance in non-obligatory contexts, i.e., morpheme overgeneralization, should be taken into account in the accuracy measure. The TLU (Target-Like Use) measure was designed to redress this potential inflation of SOC, and it was formulated as follows (Pica, 1983).

[31] We put standard English in parentheses because the English language has many standards depending on where it is spoken and how close it is to the American and British standards and we tend to agree with Cook (1992, 1993, 2000, 2007, 2008) in his multicompetence hypothesis which suggests that we should assess learners based on which standards they are trying to target and not based on only one standard like for example American or British standard.

$$TLU = \frac{\text{number of correct suppliances in obligatory contexts}}{(\text{number of obligatory contexts}) + (\text{number of suppliances in non-obligatory contexts})}$$

In spite of this shortcoming of SOC, we decided to use the formula for two reasons. (1) There were not many over-generation of the simple past tense in non-obligatory contexts in the narratives of the learners especially at the lower levels of education. But there were a few in the higher levels of education namely groups 5-6 and they were included wherever they were found. (2) Previous studies have widely used SOC to determine the learners' accuracy/inaccuracy levels in morpheme acquisition in L2 with recommendable success (Shirai 2007).

Moreover, the operationalization of the quantification units used was adopted from Upor 2009 and modified to fit this study as follows:

(a) **Correct Suppliance in Obligatory Contexts:** The participant creates an Obligatory context and also supplies the appropriate morpheme in such a way that it does not render the construction ungrammatical.

(b) **Obligatory Contexts:** The participant creates a context of use of an item in such a way that without it the construction is deemed ungrammatical and with it the construction is deemed grammatical.

(c) Misformations: The participant creates an obligatory context but supplies an incorrect item in such a way that it renders the construction ungrammatical.

(d) Non-Obligatory Contexts: The participant provides an item in a context which he creates but in which the item was not required.

The scoring guide used in this study was adopted from Rohde's (2002) longitudinal study of four German children L2 learners of English in a naturalistic setting. This has been widely used in other previous studies of tense-aspect acquisition including Upor (2009). Table 3.7 presents the scoring guide but in this table overgeneration in Rohde's (2002) account is replaced by non-obligatory contexts in this study.

Table 3.7 Suppliance in Obligatory Contexts Scoring Guide

Type	System
Correct morpheme	+/- supplied
Non-obligatory Contexts	+/- supplied
No morphemes	- supplied
Misformed items	+/- supplied

Finally, in this chapter we have presented detailed description of the participants' profiles including detailed description of the research setting and the research area. Also the methodological choices made during the data analyses and the reasons for such choices have been presented. The next chapter (chapter four) is the presentation of the results of the data analyses to be followed by the discussion of the major findings in chapter five.

CHAPTER FOUR

PRESENTATION AND ANALYSIS OF RESEARCH FINDINGS

4.1 Introduction

This chapter features the presentation and analysis of the data collected from the study participants. The major aim of this chapter is to present empirical evidence that enables us to accept or reject our research hypotheses if our data supports such acceptance or rejection. This chapter is organized around the major research objectives of this study including the research questions and the major predictions and hypotheses presented previously. The main objectives of this study include; (1) a description of the general pattern of distribution of tense-aspect morphology among the Ibibio ESL learners; (2) a description of the pattern of distribution of the past tense-aspect morphology among the Ibibio ESL learners vis-à-vis the predictions of the AH and the CSH; (3) and an account of other factors like the levels of proficiency, the effects of instruction, the effects of L1 and the amount of L2 language input etc. that might affect the acquisition and distribution of the past tense-aspect morphology among the Ibibio ESL learners.

The major tasks in this chapter will be addressed following these objectives. To clearly understand the tasks, suffice it for us to explicate on the interaction between these major research objectives and the research questions and hypotheses. Research objective number one invoked the following research questions: (a) what is the general pattern of acquisition and distribution of tense-aspect morphology among the Ibibio ESL learners and (b) what is the pattern of acquisition and distribution of the past tense-aspect morphology among the Ibibio ESL learners. Research objective number two invoked the following research questions: (a) how are the past tense-aspect

morphemes distributed in the interlanguage of the Ibibio ESL learners vis-à-vis the predictions of the AH and the CSH and (b) what is the nature of the interaction between the predictions of these two hypotheses. The research hypothesis that drives the discussion in these areas includes the statement that there will be a relationship between the independent variables and the dependent variable. The independent variables are the lexical aspectual class and the lexical saliency of the verbs whereas the dependent variable is the acquisition and distribution of the past tense-aspect morphology. This statement of hypothesis is only a neutral statement predicting some kind of correlation among variables (a two-tailed hypothesis according to Mackey and Gass 2005:100) without specifying the direction of such correlation or change. However, at this juncture in this study we have gathered the data and have completed the preliminary analyses of the data. We are now at a point where we are capable of making unidirectional hypotheses (a one-tailed hypothesis according to Mackey and Gass 2005:100) about the variables involved. Therefore a restructured hypothesis that guides the discussion in these areas states that the lexical aspectual classes of the verbs and or the lexical saliency will strongly influence the pattern of acquisition and distribution of the past tense-aspect morphology among the Ibibio ESL learners.

Research objective number three invoked the following research questions: (a) what are the possible cross-linguistic effects that might be peculiar to this group of ESL learners which might be explainable in terms of the conceptual and structural difference between the learners' L1 and L2 and (b) what are the effects of instruction and proficiency levels on acquisition and distribution of the past tense-aspect morphology. A restructured research hypothesis that guides the discussion in these areas states that factors like learners' L1, instruction or differences in proficiency levels will strongly influence the acquisition and distribution of the past tense-aspect morphology among the Ibibio ESL learners. The discussion in subsequent sections is devoted to

meeting these research objectives, answering these research questions and accepting or refuting these research hypotheses.

4.2 The Distribution of Verbal Morphology by Lexical Aspectual Classes

This section of the study focuses on presenting the results from the data analysis with the aim of providing answers to the research question concerning the general pattern of acquisition and distribution of tense-aspect morphology in the Ibibio ESL learners' interlanguage. In particular, the pattern of acquisition and distribution of the past tense-aspect morphology will be discussed as observed from the analysis of participants' narratives.

The narratives from group one consisted of 1,454 words long with the shortest narrative of 30 words long and the longest narrative of 68 words long. The mean length of the narratives from this group was 48.4 words. The narratives from group two consisted of 1,727 words long with the shortest narrative of 32 words long and the longest narrative of 123 words long. The mean length of narratives in this group was 57.5 words long. In group three the total length of all narratives was 2000 words long with the shortest narrative of 40 words long and the longest narrative of 96 words. The mean length of narratives in this group was 71.4 words. The total number of words in the narratives from group four was 3089 words with the shortest narrative of 71 words long while the longest narrative was 158 words long with a narrative mean length of 114.4 words. Also, the total number of words in narratives from participants in group five was 5603 words long with the shortest narrative of 81 words long and the longest narrative of 400 words long. The mean length of narratives from this group was 193.2 words. Lastly, the narratives collected from group six consisted of 3891 words long with the shortest narrative of 71 words long and the longest narrative of 243 words long. The total number of words in this

narrative corpus was 17764 and the total number of verbs coded for analysis in this study was 2207 verbal predicates. Samples of the narratives selected from each group of participants are presented in appendixes. Table 4.1 below presents the raw token counts of the participants' response across lexical aspectual classes by groups of participants.

Table 4.1 Raw Token Count of Verbal Morphology by Lexical Aspectual Class and Groups

Group	**Form**	**States**	**Activities**	**Accomplishment**	**Achievement**
		n	**n**	**n**	**n**
Group 1	Past	61	3	1	44
(Primary 4)	past Progressive	0	11	10	7
N=30	Past Perfect	0	0	0	0
	Present	8	7	7	22
	Present Progressive	0	2	2	0
	Present Perfect	0	0	0	0
	Subtotal	**69**	**23**	**20**	**73**
Group 2	Past	91	25	3	77
(Primary 6)	Past Progressive	0	8	1	4
N=30	Past Perfect	0	0	0	0
	Present	3	3	1	8
	Present Progressive	1	2	1	0
	Present Perfect	0	0	1	0
	Subtotal	**95**	**38**	**7**	**89**
Group 3	Past	91	23	3	47
(JSS 2)	Past Progressive	0	14	1	1
N= 27	Past Perfect	0	0	0	0
	Present	22	18	4	21
	Present Progressive	1	6	1	2

	Present Perfect	0	0	0	0
	Subtotal	**114**	**61**	**9**	**71**

Group	**Form**	**Statives**	**Activities**	**Accomplishments**	**Achievements**
		n	**n**	**n**	**n**
Group 4	Past	105	37	13	95
(SSS 2)	Past Progressive	1	17	0	2
N = 27	Past Perfect	0	0	0	1
	Present	22	30	15	30
	Present Progressive	13	17	1	7
	Present Perfect	1	0	0	2
	Subtotal	**142**	**101**	**29**	**137**
Group 5	Past	116	109	42	208
(Year 1)	Past Progressive	0	9	1	1
N = 29	Past Perfect	1	2	0	15
	Present	4	32	10	16
	Present Progressive	2	40	11	35
	Present Perfect	0	1	1	2
	Subtotal	**123**	**193**	**65**	**277**
Group 6	Past	89	57	27	171
(Year 3)	Past Progressive	1	10	0	4
N = 26	Past Perfect	0	1	0	3
	Present	7	24	8	20

	Present Progressive	3	19	3	20
	Present Perfect	0	1	0	3
Group	Form	Statives	Activities	Accomplishments	Achievements
	Subtotal	**100**	**112**	**38**	**221**
	TOTAL	**643**	**528**	**168**	**868**
			GRAND TOTAL		**2207**

The results displayed in table 4.1 show that this study employed the lexical aspectual class labels such as statives, activities, accomplishments and achievements as the coding categories in the interlanguage of these ESL learners in spite of the fact that there have been some criticisms over the use of these labels from scholars like Ladiere (1998, 2003). Ladiere (2003), for example, observed that the use of these labels as the coding categories assumes too much psycho-semantic intuition on the part of the ESL learners. Lardiere claimed that the use of these lebels assumes a native speaker's intuition about the meaning of verb stems on the part of the learners who may have non-equivalent semantics for the verb stems they actually produce. In this study, we used these labels for convenience of analysis at both the qualitative and the quantitative levels without attaching any such psycho-semantic assumption about the intuition of the Ibibio ESL learners (Shirai 2007). That was the reason why we relied heavily on the contexts in which the learners used each verbal predicate during the classification of the verbal predicates into these lexical aspectual classes. In addition, our robust knowledge of the learners' L1 and effective analysis of the lexical aspectual underpinnings of the L1 in this study are expected to unequivocally show that such assumptions are not implicated.

Also apparent from table 4.1 is the use of the morpho-syntactic labels such as Past, Progressive, Present, Past Perfect etc (Upor 2009, Ayoun & Salaberry 2008, Wulf et al. 2009) to label the

verbal morphological marking in this interlanguage corpus instead of the completely aspectual labels such as Perfective and Imperfective used in works like Andersen (1991). The choice of these labels was informed by three reasons. The first reason is that the purely aspectual labels used by some scholars tend to merge distinctive forms into one. The result is that forms like the past, the past perfect and the present perfect tend to be merged into the Perfective class while forms like the present, the present progressive, the past progressive, the habitual etc. tend to be fused into the Imperfective class. This merger does not allow for proper explication of the interaction between the forms (the verbal morphology) and the function (the lexical aspect of the verbs). The second reason why we used these labels is that they are more general (more universal if you like) than the perfective vs. imperfective dichotomy because we can talk about the past, the present etc in almost all languages of the world but we can talk about the perfective vs. the imperfective only in some languages like the Romance languages. And more so, the nature of the imperfective in one language may be different from the imperfective in another language. For instance the class of imperfective in French operates only in the past tense and on all lexical aspectual classes of the verbs in that language whereas the imperfective in English is in the form of progressive aspect and operates in all tenses but only on non-stative situation types. The third reason for using these labels is that, as the study curriculum presented in the previous chapter showed, the participants in this study are all classroom learners and their program of study is tailored toward the acquisition of the categories used in this study.

The results in table 4.1 can lead us to observe that the past tense has been acquired even at the lowest level of proficiency selected for this study. Note that a large number of stative verbs and achievement verbs are marked with the past though we also have a considerable number of them

appearing in the present/base forms. Also note that the progressive has been acquired by learners at this level as a large number of activity verbs and accomplishment verbs are marked with the progressive. This observation is in line with the instructions given to the learners at this level as displayed in the syllabi in Chapter three. The aim of that portion of the syllabi is that the pupils at this level should be able to use the past tense, distinguish between the past tense and the past continuous tense and make sentences using these two tenses.

The selection of the participants is germane to the ability to find acceptable answers to any research questions. The selection of the primary four students to form group one in this study was deliberate. It was an attempt to ensure that the analysis of the data collected from the participants would enable this study to find answers to the research questions. These include providing an analysis of the pattern of acquisition and distribution of tense-aspect morphology in the interlangauge of the research participants. Researchers who intend to assess the earliest stages of acquisition of temporality when tense marking has not yet emerged may prefer to select learners from the lower levels of proficiency. Analyses of data collected from such learners can bring to the fore the pre-verbal morphology means of encoding temporality. However, studies that seek to test the aspect hypothesis should not select learners whose level of proficiency is too low (as in group 1 in Upor 2009) because the aspect hypothesis may not be able to account for such data causing inefficiency in research practices.

Also apparent from table 4.1 is the observation that stative verbs have been overwhelmingly marked with the past by all groups of participants. This is in line with other studies in recent literature (Bardovi-Harlig 1998, 2000; Bardovi-Harlig & Bergstrom 1996; Salaberry 1999, 2000; Robison 1990; Lee 2001 etc). In recent research, some scholars have opted to exclude the copula in their analysis on the argument that since they are intrinsically tense carriers and are almost

always marked for tense when they appear in the interlanguage of L2 learners, they are not representative of the acquisition status of the lexical statives in the interlanguage. In my opinion, these copula verbs might be acquired as formulaic chunks and used as such in the interlanguage by the learners irrespective of the fact that the learners may not have acquired the concept of tense at the early stages. However, some researchers have argued that the exclusion of the copula does not respect the integrity of the data especially when analysis of the narrative structure is included as a part of the research concern.

In this study, statives constituted 29.1% of all the verbal predicates produced by the participants out of which only 18.3 % were copula verbs while 10.7% were lexical stative verbs. A within-group analysis of the distribution of the copula statives vis-à-vis the lexical statives shows that there are no groups of participants in which the learners relied overwhelmingly on copula in their production data. Table 4.2 presents a within-group analysis of the distribution of the statives in the learners' interlanguage.

Table 4.2: A Within-group Distribution of Stative Verbs by Verb Structure and by Groups

	Copula		**Lexical Stative**		**Total # of Verbs**
	#	**%**	**#**	**%**	
Group 1	41	22.1	28	15.1	185
Group 2	61	26.7	34	14.9	229
Group 3	87	30.5	27	10.5	255
Group 4	80	19.5	62	15.1	409
Group 5	72	10.9	51	7.8	658
Group 6	65	13.8	35	7.8	471

Notice from table 4.2 that, if we concentrated on the spread of the copula only, there is a slight increase in the dependency on the copula from 22.1% use in group 1 (primary 4 students, i.e. 4th grade) to 26.7% use in group 2 (primary six students, i.e. 6th grade) until when it reached the peak at 30.5% use in group 3 (JSS 2 students, i.e. 8th grade). After this point, the dependency on the copula shows a great decrease from 30.5 % use in group 3 to 19.5 % use in group 4 (SSS 2 students, i.e. 10th grade) and this continues to decrease to 10.9% use in group 5 (year 1 students) with a slight increase to 13.8% in group 6 (year 3 students). This shows that the dependence on the copula use decreases as the level of instruction increases. Figure 4.1 shows the gradual decrease in copula use as the learners progress in learning the target language.

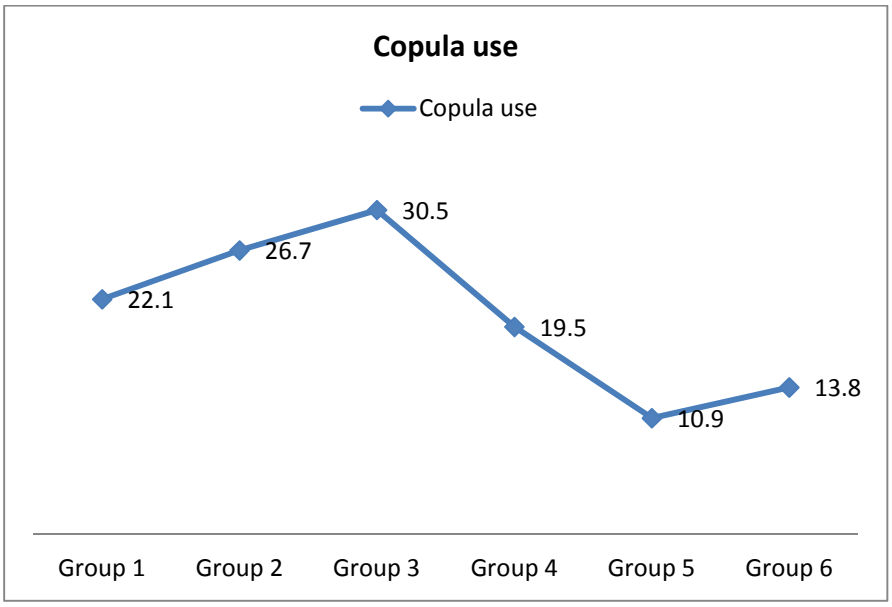


Fig 4.1 The Pattern of Distribution of Copula Verbs in Learners' Interlanguage Corpus

In this study we shall maintain the copula in subsequent analyses for the following reasons. First, the overall use of copula by learners is only about 19% and there are no groups whose participants depended heavily on the use of the copula. Second, the gradual decrease in the rate

of copula use as the proficiency levels of the learners increase though the total number of verbs produced by the learners at higher levels increases shows that the inclusion of the copula may not have a negative impact on the statistical analysis to be conducted in this study. Third, the statistical tests conducted in this study (chi-square tests) required that all cells should contain at least five counts of the observation and only the lexical statives did not meet this requirement.

The following can be noted from table 4.1 as well. (1) The number of verbal predicates produced by the participants increase as the levels of proficiency of the participants increases. (2) There is an uneven distribution of the lexical aspectual verbs produced by the participants irrespective of the proficiency levels of the groups of participants. For example, in group 1 the learners produced 69 stative verbs, 23 activity verbs, 20 accomplishment verbs and 73 achievement verbs whereas in group 3 they produced 114 stative verbs, 61 activity verbs, 9 accomplishment verbs and 71 achievement verbs. This unevenness in the distribution of the lexical aspectual verbs is in line with the predictions of the aspect hypothesis and has been reported in previous work (Upor 2009, Housen 2002, Robison 1990 etc). (3) The number of verb tokens produced correlates with the length of the narratives produced by each group of participants. However, there is a slight decrease in the number of verb tokens corresponding to a decrease in the mean length of the narratives produced by the participants in group 6 when compared to group 5. The production of tokens of accomplishments and the past verbal markings on the same are generally very low across all groups when compared to the production and the past marking of statives and achievements. This trend is unique to this set of interlanguage corpus and may be attributable to L1 effect. This will be discussed in the next chapter as we present further analyses of the results of this study using both the across-category and the within-category analyses in the following subsections.

4.2.1 Methods of Analysis in Recent Aspect Studies

In an attempt to find quantified evidence for the claims of the aspect hypothesis researchers have developed two similar but non-equivalent methods of analysis discussed in Bardovi-Harlig (2000:252). The two methods are the Across-category Analysis and the Within-category Analysis. In fact a comparison of the two methods of analysis in Bardovi-Harlig (2000) shows that the differences between them can lead one to either support or reject the claims of the aspect hypothesis on the basis of the same data. Every aspect study aims to determine whether verbal morphology shows a differential distribution across lexical aspectual categories as we have already observed in the uneven distribution in the raw score presented so far in this study. However, to achieve this basic aim, some studies address the question; "Where do the various morphemes occur" (Rohde 1996; Salaberry 1999b; Housen1994; Shirai 1995; etc.). Other studies address the question; "How are each of the lexical aspectual categories marked" (Robison 1995a; Bardovi-Harlig 1998 etc.). The across-category analysis is best suited for studies that seek to answer the first question because it emphasizes the particular tense-aspect morpheme under investigation whereas the within-category analysis is best suited for the second question because it emphasizes the aspectual categories and shows which inflection occurs on verbs in that category. In this study, both methods were used in the analysis of the data in our corpus in order to take advantage of the comparative advantages of each method that will be highlighted as we discuss each method.

4.2.2 The Across-category Analysis

The across-category analysis of the data attempts to answer the question "Where do various morphemes used by the learners occur?" According to Rohde (1996), it highlights the various

verbal inflections acquired and used by the learners. However, according to Robison (1995a) across-category analysis is sensitive to the inherent unbalance in the distribution of verbal predicates across categories. This makes it difficult for the researcher to capture and explain the developmental effect among the various groups of participants and without the developmental effect, there is no evidence for the aspect hypothesis. Two means of presentation are employed in this method: raw scores (Rohde 1996) and percentages with raw scores (Shirai 1995; Shirai & Kurono 1998; Housen 1994; Salaberry 1999b). Table 4.3 presents the raw score and the percentages of predicates in our corpus by taking the ratio of the sum of all the predicates that occur with a given morpheme across the lexical aspectual categories.

Table 4.3

Raw Count with Percentages of Morphological Markings across Lexical Aspectual Classes by Groups

Group	Form	Statives		Activities		Accomplishments		Achievements		Total	Total
		n	%	n	%	n	%	n	%	#	%
Group 1	Past	61	56.0	3	2.7	1	1.0	44	40.3	**109**	**100.0**
(Primary 4)	Past Progressive	0	0.0	11	39.2	10	35.8	7	25	**28**	**100.0**
N=30	Past Perfect	0	0.0	0	0.0	0	0.0	0	0.0	**0**	**0.0**
	Present	8	18.1	7	16.0	7	16.0	22	50.0	**44**	**100.0**
	Present Progressive	0	0.0	2	50.0	2	50.0	0	0.0	**4**	**100.0**
	Present Perfect	0	0.0	0	0.0	0	0.0	0	0.0	**0.0**	**0.0**
Group 2	Past	91	46.4	25	12.8	3	1.6	77	39.2	**196**	**100.0**
(Primary 6)	Past Progressive	0	0.0	8	61.6	1	7.7	4	30.7	**13**	**100.0**
N=30	Past Perfect	0	0.0	0	0.0	0	0.0	0	0.0	**0.0**	**0.0**
	Present	3	20.0	3	20.0	1	6.7	8	53.3	**15**	**100.0**
	Present Progressive	1	25.0	2	50.0	1	25.0	0	0.0	**4**	**100.0**
	Present Perfect	0	0.0	0	0.0	1	100	0	0.0	**1**	**100.0**

Group	Form	Statives		Activities		Accomplishments		Achievements		Total	Total
		n	%	n	%	n	%	n	%	n	%
Group 3	Past	91	55.5	23	14.0	3	1.8	47	28.7	**164**	**100.0**
(JSS 2)	Past Progressive	0	0.0	14	87.6	1	6.2	1	6.2	**16**	**100.0**
N= 27	Past Perfect	0	0.0	0	0.0	0	0.0	0	0.0	**0**	**0.0**
	Present	22	33.8	18	27.7	4	6.1	21	32.3	**65**	**100.0**
	Present Progressive	1	10.0	6	60.0	1	10.0	2	20.0	**10**	**100.0**
	Present Perfect	0	0.0	0	0.0	0	0.0	0	0.0	**0**	**100.0**
Group 4	Past	105	42.0	37	14.8	13	5.2	95	38.0	**250**	**100.0**
(SSS 2)	Past Progressive	1	5.0	17	85.0	0	0.0	2	10.0	**20**	**100.0**
N = 27	Past Perfect	0	0.0	0	0.0	0	0.0	1	100.0	**1**	**100.0**
	Present	22	22.7	30	30.9	15	15.5	30	30.9	**97**	**100.0**
	Present Progressive	13	34.2	17	44.7	1	2.7	7	18.4	**38**	**100.0**
	Present Perfect	1	33.3	0	0.0	0	0.0	2	66.7	**3**	**100.0**

Group	Form	Statives		Activities		Accomplishments		Achievements		Total	Total
		n	%	n	%	n	%	n	%	n	%
Group 5	Past	116	24.4	109	22.9	42	8.9	208	43.8	**475**	**100.0**
(Year 1)	Past Progressive	0	0.0	9	81.8	1	9.1	1	9.1	**11**	**100.0**
N = 29	Past Perfect	1	5.6	2	11.1	0	0.0	15	83.3	**18**	**100.0**
	Present	4	4.5	32	51.6	10	16.1	16	25.8	**62**	**100.0**
	Present Progressive	2	2.2	40	45.5	11	12.5	35	39.8	**88**	**100.0**
	Present Perfect	0	0.0	1	25.0	1	25.0	2	50.0	**4**	**100.0**
Group 6	Past	89	25.8	57	16.6	27	7.9	171	49.7	**344**	**100.0**
(Year 3)	Past Progressive	1	6.7	10	66.7	0	0.0	4	26.6	**15**	**100.0**
N = 26	Past Perfect	0	0.0	1	25.0	0	0.0	3	75	**4**	**100.0**
	Present	7	11.9	24	40.7	8	13.6	20	33.8	**59**	**100.0**
	Present Progressive	3	6.7	19	42.2	3	6.7	20	44.4	**45**	**100.0**
	Present Perfect	0	0.0	1	25.0	0	0.0	3	75.0	**4**	**100.0**

As we stated earlier, the across-category analysis answers the question "Where are the verbal morphemes marked?" So table 4.3 shows that in group 1, for instance, of all the past tense-aspect morphemes produced by the learners in that group (109 of them) 56% of them are marked on statives verbs, 2.7% of them are marked on activity verbs, 1% of them is marked on accomplishment verbs whereas 40.3% of them are marked on achievement verbs. This gives us the distributional sequence of the past tense-aspect marking for this group as follows: States > Achievement > Activities > Accomplishment. This does not support of the aspect hypothesis. In fact a cursory look at the entire table reveals this same distributional sequence for groups 2, 3 and 4. In groups 5 and 6 a different pattern of distributional sequence emerges due to the fact that, as we noted earlier, learners at the higher proficiency levels show a decrease in dependency on the use of the statives verbs. This decrease in the use of statives at the higher levels of proficiency forces the percentages of stative verbs used to drop too resulting in the distributional sequence: Achievements > Statives > Activities > Accomplishment for this two groups. This provides partial support for the aspect hypothesis. The following graphs illustrate a comparison of the distribution of the past tense-aspect morphology across the lexical aspectual classes by groups of participants as deduced from table 4.3 above.

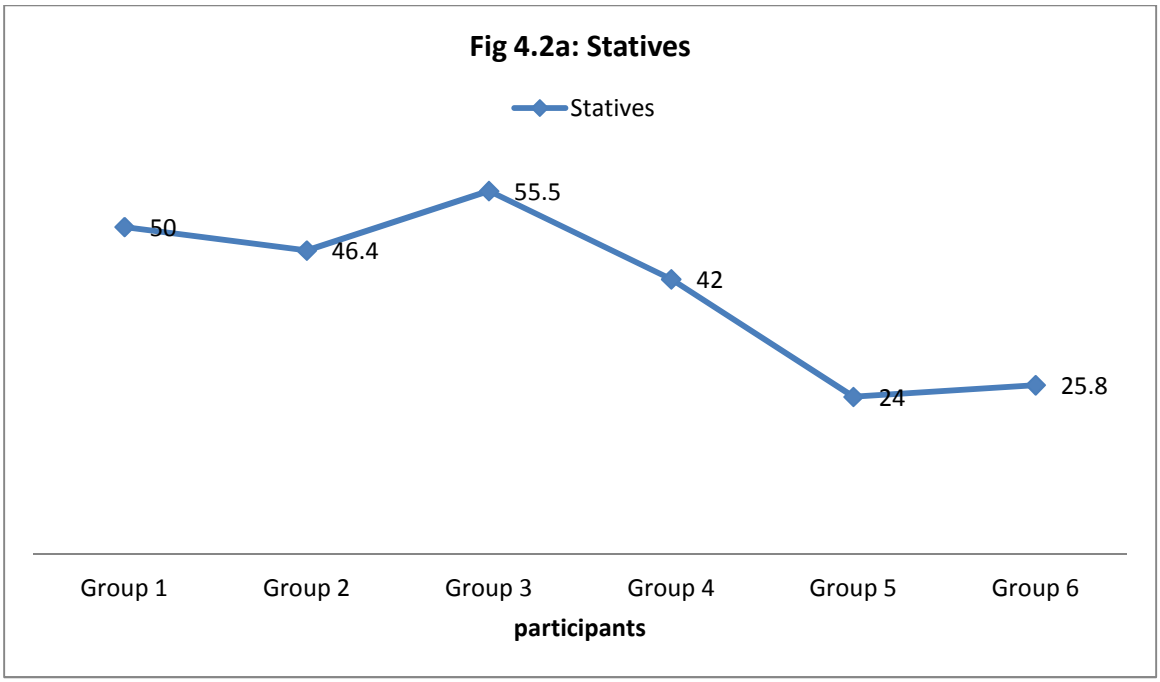


Fig 4.2a: Statives
Statives
50
46.4
55.5
42
24
25.8
Group 1
Group 2
Group 3
Group 4
Group 5
Group 6
participants

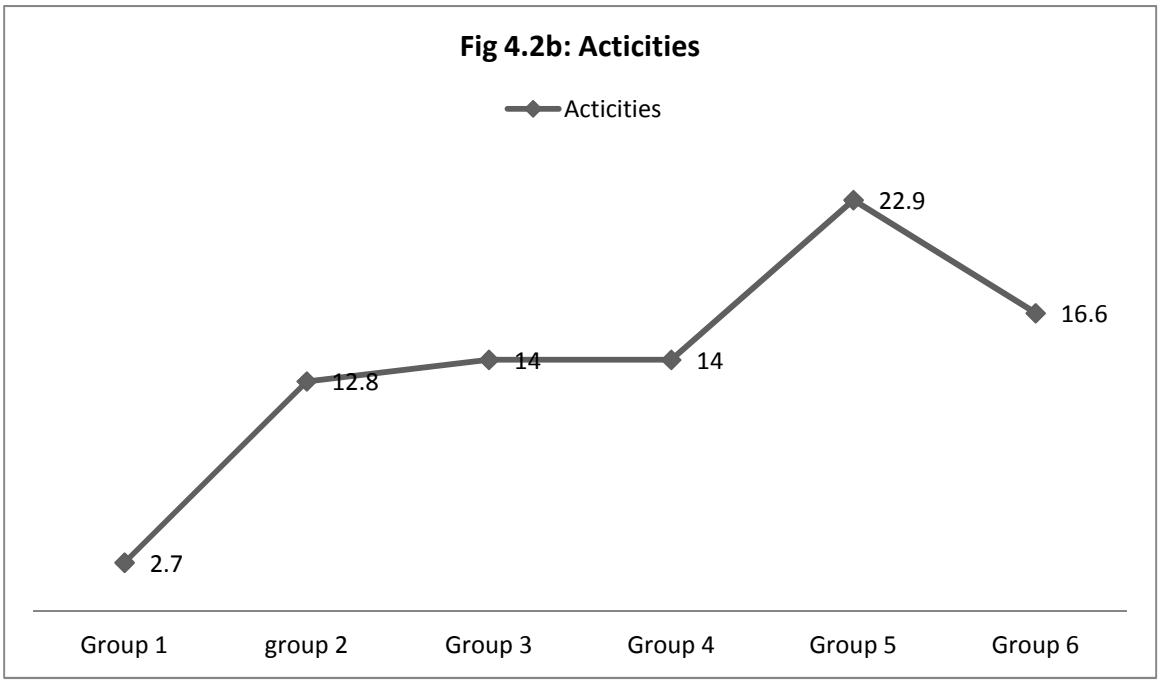
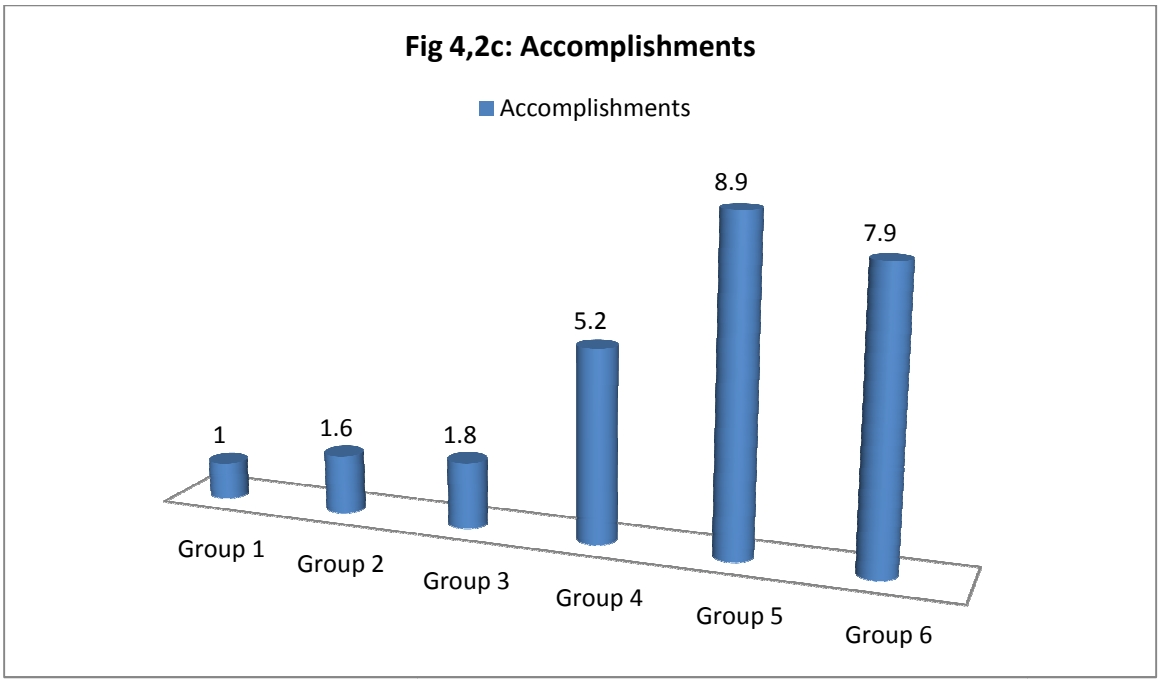


Fig 4.2b: Acticities
Acticities
2.7
12.8
14
14
22.9
16.6
Group 1
group 2
Group 3
Group 4
Group 5
Group 6



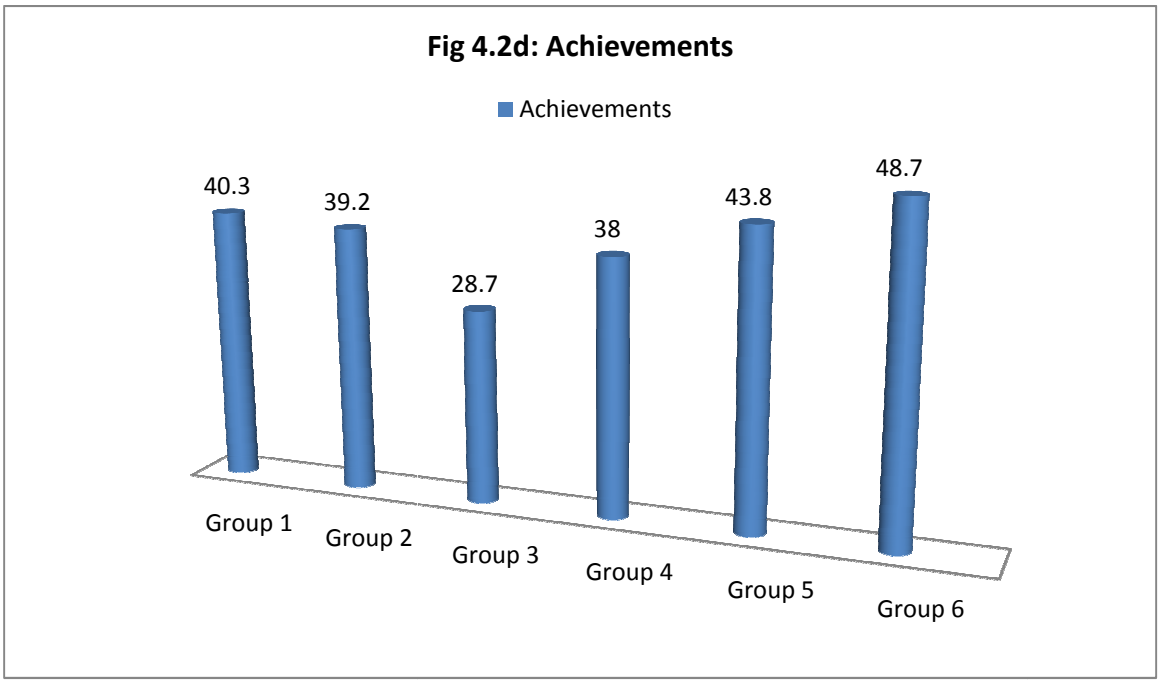


Fig 4.2[32]: A Comparison of the Distribution of the Past Tense-aspect Morphology across Lexical Aspectual Categories by Groups

[32] The graphs are scaled to 100%. E.g. groups 1-6 marked 1.0%, 1.6%, 1.8%, 5.2%, 8.9% and 7.9% of ACC with the past tense across categories respectively. Also, groups 1-6 marked 40.3%, 39.2%, 28.7%, 38%, 43.8% and 49.7% of ACH with the past tense across categories respectively.

What we intend to achieve with the graphic illustration in figures (4.2a-d) is to examine the pattern of acquisition and distribution of the past tense-aspect marking among the participants. This would enable us to observe possible developmental effect that may be due to the differences in levels of proficiency. What this means is whether the percentages of the verbal predicates marked with the past tense-aspect morphology would increase as the learners' levels of instruction or education increase. What we observe is that for the stative verbs there is a steady but gradual decrease in the percentage of the past tense marking as the learners advance in levels of proficiency. This is mainly due to a corresponding reduction in the total number of copula verbs that the learners use as they advance in acquisition ladder acquiring more lexical statives and other verb types. This pattern has been reported in other studies including Upor 2009.

There is a gradual increase in the percentage use of the past tense on activity verbs up until group 6 (third year university students) where we observe a slight dip in the graph. This dip is mainly due to the fact that the narratives produced by the participants in this group were not as long when compared to those produced by the participants in group 5 (first year university students). However, the rate of past tense markings on this class of verbs is generally low with the lowest rate of 2.7% in group 1 and the highest rate of 22.9 in group 5. Accomplishment verbs show a very low rate of past tense marking due also to a corresponding low rate of production. But we observe a gradual increase in the rate of production as the learners increase in proficiency levels up to group 5 with a dip in group 6 for the same reason as above. Achievement verbs also show a similar pattern of gradual increase though the rate of increase from one group to another may not show significant differences among the groups.

In this section we have answered the question "Where are the past tense-aspect morphology marked in the interlanguage of Ibibio ESL learners" using an across-category analysis. We submit that the direction of spread (acquisitional sequence) of the past tense-aspect morphology does not support the aspect hypothesis in groups 1-4 because the observed acquisition sequence for these groups is: Stative > Achievement > Activities > Accomplishment. This is contrary to the expected acquisition sequence of Achievement > Accomplishment > Activities > Stative predicted by the aspect hypothesis. However, there is partial support for the aspect hypothesis in groups 5 and 6 where the observed acquisition sequence is: Achievement > Stative > Activity > Accomplishment. In the following section, we present a within-category analysis of the data.

4.2.3: Within-Category Analysis

A within-category analysis attempts to answer the question "How are the lexical aspectual categories marked by the learners?" This approach analyzes the morphological use within each lexical aspectual category (Bardovi Harlig 2000; Robison 1995a) so that the percentage of the progressive marked on activity verbs by a group of participants, for instance, would be a ratio of all the verbal morphology marked on activity verbs by the participants in that group. According to Robison (1995a), this approach has the advantage of being insulated from the effect of the inherent unbalance in the number of tokens produced in each lexical aspectual group. It is also capable of showing the developmental effect more clearly and therefore more support for the aspect hypothesis than across-category analysis. Table 4.4 presents a within-category analysis of our data.

Table 4.4

Raw Count with Percentages of Morphological Markings within Lexical Aspectual Classes by Groups

Group	Form	States		Activities		Accomplishment		Achievement	
		n	**%**	**n**	**%**	**n**	**%**	**n**	**%**
Group 1	Past	61	88.4	3	13.0	1	5.0	44	60.3
(Primary 4)	Past Progressive	0.0	11	47.8	10	50.0	7	9.6	
N=30	Past Perfect	0	0.0	0	0.0	0	0.0	0	0.0
	Present	8	11.6	7	30.5	7	35.0	22	30.1
	Present Progressive	0	0.0	2	8.7	2	10.0	0	0.0
	Present Perfect	0	0.0	0	0.0	0	0.0	0	0.0
	Total	**69**	**100.0**	**23**	**100.0**	**20**	**100.0**	**73**	**100.0**
Group 2	Past	91	95.7	25	65.7	3	42.8	77	86.6
(Primary 6)	Past Progressive	0	0.0	8	21.1	1	14.3	4	4.5
N=30	Past Perfect	0	0.0	0	0.0	0	0.0	0	0.0
	Present	3	3.2	3	7.9	1	14.3	8	8.9
	Present Progressive	1	1.1	2	5.3	1	14.3	0	0.0
	Present Perfect	0	0.0	0	0.0	1	14.3	0	0.0
	Total	**95**	**100.0**	**38**	**100.0**	**7**	**100.0**	**89**	**100.0**

Group	Form	States		Activities		Accomplishment		Achievement	
		n	%	n	%	n	%	n	%
Group 3	Past	91	79.8	23	37.7	3	33.3	47	66.1
(JSS 2)	Past Progressive	0	0.0	14	22.9	1	11.1	1	1.5
N= 27	Past Perfect	0	0.0	0	0.0	0	0.0	0	0.0
	Present	22	19.3	18	29.6	4	44.5	21	29.6
	Present Progressive	1	0.9	6	9.8	1	11.1	2	2.8
	Present Perfect	0	0.0	0	0.0	0	0.0	0	0.0
	Total	**114**	**100.0**	**61**	**100.0**	**9**	**100.0**	**71**	**100.0**
Group 4	Past	105	73.9	37	36.4	13	44.8	95	69.3
(SSS 2)	Past Progressive	1	0.7	17	16.9	0	0.0	2	1.5
N = 27	Past Perfect	0	0.0	0	0.0	0	0.0	1	0.7
	Present	22	15.6	30	29.8	15	51.7	30	21.9
	Present Progressive	13	9.1	17	16.9	1	3.5	7	5.1
	Present Perfect	1	0.7	0	0.0	0	0.0	2	1.5
	Total	**142**	**100.0**	**101**	**100.0**	**29**	**100.0**	**137**	**100.0**

Group	Form	States		Activities		Accomplishment		Achievement	
		n	%	n	%	n	%	n	%
Group 5	Past	116	94.3	109	56.5	42	64.6	208	75.1
(Year 1)	Past Progressive	0	0.0	9	4.7	1	1.6	1	0.3
N = 29	Past Perfect	1	0.9	2	1.0	0	0.0	15	5.4
	Present	4	3.2	32	16.6	10	15.3	16	5.8
	Present Progressive	2	1.6	40	20.7	11	16.9	35	12.7
	Present Perfect	0	0.0	1	0.5	1	1.6	2	0.7
	Total	**123**	**100.0**	**193**	**100.0**	**65**	**100.0**	**277**	**100.0**
Group 6	Past	89	89.0	57	50.9	27	71.1	171	77.3
(Year 3)	Past Progressive	1	1.0	10	8.9	0	0.0	4	1.8
N = 26	Past Perfect	0	0.0	1	0.9	0	0.0	3	1.4
	Present	7	7.0	24	21.5	8	21.1	20	9.1
	Present Progressive	3	3.0	19	16.9	3	7.8	20	9.1
	Present Perfect	0	0.0	1	0.9	0	0.0	3	1.4
	Total	**100**	**100.0**	**112**	**100.0**	**38**	**100.0**	**221**	**100.0**

4.2.3.1 The Spread of the Simple Past

Recall that one of the main objectives of this study is to describe and analyze the general pattern of acquisition and distribution of the past tense-aspect morphology in interlanguage of these learners and to compare this general pattern (observed pattern) to the expected pattern according to the predictions of the aspect hypothesis (AH) and the cognitive saliency hypothesis (CSH). In this subsection we present the general pattern of acquisition and distribution of the past tense-aspect morphology according to the within-category analysis in table 4.4 above. From table 4.4 we notice that the spread of the simple past does not provide any firm support for aspect hypothesis (AH) because there is no one route of spread of the past across all groups of participants. There is a dichotomy of acquisitional sequence that emerged in the sense that participants in groups 1 to 3 (learners in 4^{th}, 6^{th} and 8^{th} grades respectively) pattern differently from participants in groups 4 to 6 (learners in 11^{th} grade, first and third year university students respectively). The learners in groups 1 to 3 show the sequence Stative > Achievement > Activity > Accomplishment (i.e. atelic > telic > atelic > telic verbs). This is not in support of the AH. The learners in groups 4 to 6 follow the sequence Stative > Achievement > Accomplishment > Activity (i.e. atelic > telic > telic > atelic verbs). This is also not in full support of the AH though we can claim partial support because the acquisition sequence for achievement precedes that for accomplishment (all telics) and the two precede activity as predicted by the AH. In addition, if we dropped the stative verbs from this analysis, we find a clearer support for the AH as the acquisition sequence turns out to be Achievement > Accomplishment > Activity (telic > telic > atelic verbs) as predicted by the AH but this is only at the higher levels of proficiency.

This dichotomy may be a result of a steady increase in the tokens of accomplishment verbs produced by the learners as they advanced in instruction levels. The learners at the lower levels

of proficiency produced very low number of accomplishment verbs compared to other categories. For example, learners in group 1 produced only 20 tokens of accomplishment verbs only 1 of which is marked with the past. Groups 2 and 3 produced 7 and 9 tokens respectively of which 3 tokens each is marked with the past. However, this numbers jumped to 29, 65 and 38 tokens of which 13, 42 and 27 are marked with the past in groups 4, 5 and 6 respectively though this is also incredibly low compared to other categories. This generally low rate of production of tokens of accomplishment verbs and the corresponding low rate of the past marking on this category may be attributable to L1 effect especially at the lower levels of proficiency. Like we pointed out in Chapter one, telicity assignment on similar class of verbs in the learners' L1 is dubious because such verbs can be interpreted either as telic or atelic verbs when used in the L1 sentences. This, in my opinion, creates a unique learning constraint for this group of ESL learners especially those at the lower levels of proficiency. As Ortega (2009) has pointed out, what level of proficiency a particular L1 transfer shows up might depend on the nature of the linguistic structure the learner is confronted with during the learning process. We argue that the Ibibio ESL learners at the lower levels of proficiency show a kind of conceptual transfer resulting in the low rate of production of accomplishment verbs because, at these levels, they are still formulating and testing hypotheses about the telicity assignment of accomplishment verbs in their target language.

The participants in group 2 show an exceptionally high rate of past tense marking when compared to other groups with 95.7% of stative verbs, 86.6% of achievement verbs, 65.7% of activity verbs and 42.8% of accomplishment verbs marked with the past. This very high rate of past marking in this group tends to blur the developmental effect in this analysis. Nevertheless, when the learners in group 2 are discounted for a moment, we observe a clear developmental

effect in the past marking for achievement verbs with 60.3%, 66.1%, 69.3%, 75.1% and 77.3% for groups 1, 3, 4, 5 and 6 respectively. The same goes for accomplishment verbs with 5%, 33.3%, 44.8%, 64.6% and 71.1% for learners in groups 1, 3, 4, 5 and 6 respectively. For activity verbs we have 13%, 37.7%, 36.4%, 56.5% and 50.9% for groups 1, 3, 4, 5 and 6 respectively whereas stative verbs do not show any clear developmental effect in this analysis. The general pattern of distribution of the simple past within the lexical aspectual categories and across groups is illustrated in the graph in figure 4.3 below. This graphic illustration shows that stative and achievement verbs pattern together by showing higher percentage rates of the past tense marking across groups. Activity and accomplishment verbs pattern together by showing lower percentage rates of the past tense marking across groups.

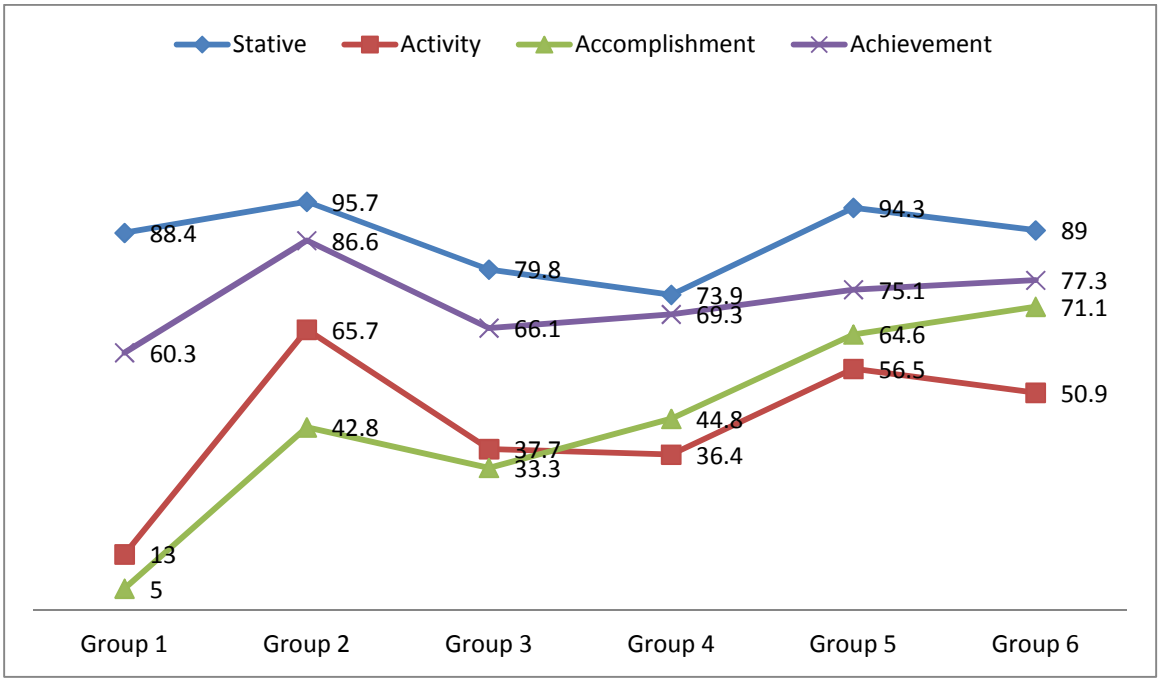


Fig 4.3[33]: A Within-category Distribution of the Simple Past across Groups

[33] This graph is scaled to 100% along the Y axis. For examples, of all the verbal morphology used by the learners in group 1, 88.4% of them were simple past marked on stative verbs.

4.2.3.2 The Spread of the Progressive Marking

The prediction about the spread of the progressive is the third prediction of the AH but it is the second prediction that is relevant to acquisition of English tense-aspect morphology by ESL learners. The prediction is that in languages that have the progressive aspect, the spread of the progressive markings begins with activities then it extends to accomplishments and achievements. And as we stated earlier in chapter two, the last prediction of the AH that is relevant to ESL learners is the prediction that the progressive markings would not be over-extended to stative verbs (Andersen 1991; Andersen & Shirai 1995; Shirai & Andersen 1996; Ayoun & Salaberry 2008; Salaberry 2000, Robison 1990; Bardovi-Harlig 1998, 2000).

In previous work, especially in the acquisition of English, progressive marking have been reported to be robustly associated with activity verbs. Such work as Giacalone-Ramat (1995d, 1997), who investigated the spread of the progressive, reported that 63% of all progressive markings were on activity verbs whereas 22% appeared on stative verbs with a gradual spread of the progressive to accomplishments with 8% of the tokens and achievements with 4% of the tokens. Similar results were reported in Bardovi-Harlig & Reynolds 1995, Bardovi-Harlig and Bergstrom 1996, Robison 1995, Upor 2009. However, in Upor (2009), there was predominance of marking of the progressive on activity verbs but the direction of emergence of the progressive markings did not completely support the predictions of the AH because the following pattern emerged: Activities > Achievements > Accomplishments > Statives. Table 4.5 presents the analysis of the distribution of the progressive marking in this study.

Table 4.5: Distribution of Progressive Marking across Lexical Aspectual Categories

Group	Form	Stative		Activity		Accomplishment		Achievement		Total	
		#	%	#	%	#	%	#	%	#	%
Group 1	Past	0	0.0	11	39.2	10	35.8	7	25	**28**	**100**
	Present	0	0.0	2	50.0	2	50.0	0	0.0	**4**	**100**
Group 2	Past	0	0.0	8	61.6	1	7.7	4	30.7	**13**	**100**
	Present	1	25.0	2	50.0	1	25.0	0	0.0	**4**	**100**
Group 3	Past	0	0.0	14	87.6	1	6.2	1	6.2	**16**	**100**
	Present	1	10.0	6	60.0	1	10.0	2	20.0	**10**	**100**
Group 4	Past	1	5.0	17	85.0	0	0.0	2	10.0	**20**	**100**
	Present	13	34.2	17	44.7	1	2.7	7	18.4	**38**	**100**
Group 5	Past	0	0.0	9	81.8	1	9.1	1	9.1	**11**	**100**
	Present	2	2.2	40	45.5	11	12.5	35	39.8	**88**	**100**
Group 6	Past	1	6.7	10	66.7	0	0.0	4	26.6	**15**	**100**
	Present	3	6.7	19	42.2	3	6.7	20	44.4	**45**	**100**
Mean %	**Past**		**1.95**		**70.3**		**9.8**		**17.9**		
	Present		**13.1**		**48.7**		**17.8**		**20.4**		

Table 4.5 demonstrates the predominance of the progressive marking on activity verbs across all groups of participants as reported in previous studies. However, the overall acquisition sequence or direction of emergence of the progressive go against the expected sequence according to the

AH though we can claim partial support for the AH (Andersen & Shirai 1994; Bardovi-Harlig 1998 etc). The sequence that emerged from this study is as follows: Activity > Achievement > Accomplishment > Stative for both the past progressive and the present progressive marking. A similar pattern of emergence was reported in Upor 2009 as stated earlier. In addition, we noticed overgeneralization of the progressive marking to stative verbs. For example, table 4.5 shows 25% present progressive marking on stative verbs in group 2, 10% in group 3, 34.2% in group 4, 2.2 % in group 5 and 6.7% present progressive marking in group 6. The following examples selected from the learner's narratives illustrate such marking of the progressive aspect on stative verbs. Compare the examples below.

1. So, one day day when he went out **not knowing** that he left the gates wide open (G4N4)
2. …the cat and dog **being** very hungry rushed to get the rat for food (G4N9)
3. Once upon a time there was a cat and a rat **living** together… (G6N3)
4. Mickey ran and ran into a bottle lying on the ground **knowing** that kim… (G6N7)

Untutored learners have been reported to be likely to overextend the progressive marking to stative verbs. Untutored learners are L2 learners who have not received any formal instructions on their target language in a classroom setting. This is in contrast with classroom learners who have received such instructions. For example, Robison 1990 reported a noticeable use of the progressive with stative verbs by the untutored learner of English he investigated. 22% of all statives produced by the learner occurred with the progressive marking. Robison (1995) and Rohde (1996, 2002) reported a similar progressive states by untutored learners. On the contrary, most tutored learners are reported as having low use of the progressive with stative verbs. For example, Flashner (1989) reported that none of the three Russian learners of English used the progressive with stative verbs and Bardovi-Harlig & Bergstrom (1996) reported that tutored

learners of English in their study showed no greater than 3% marking of the progressive on stative verbs. Housen (2002) attributes the progressive states reported in Robison (1990, 1995) and Rohde (1996, 2002) to two possible factors namely L1 effects and lack of instruction. In this study, all the learners are tutored learners who have received instruction on the use of the progressive even as early as group 1; the lowest level of proficiency in this study, as shown in the course syllabi presented in Chapter three. So the effect of lack of instruction may be discounted. The most likely cause of this overextension is L1 effect because the learners' L1 permits the use of stative verbs with the progressive morpheme as in example (5) below.

5. Okon a- ke- sʌk a- ba ke ufɔk

   Okon Agr- Past- Prog- Agr- BE Loc house

   Okon was still staying/being at home

4.2.3.3 The Spread of other Forms

Apart from the simple past and the progressive forms of tense-aspect morphology that we have discussed so far, there were other forms that the learners used in their narratives as shown in table 4.4 and other tables presented above. These forms included the Present tense, the Present Perfect and the Past Perfect forms. These forms were included in this study because some of them (like the present[34]) presented a real competition with the simple past because the learners consistently produced them across all groups. We believe that the inclusion of these forms has the potential to help us explain the distribution of the simple past more clearly and to explain what forms the learners have acquire and at what levels. For example, a cursory look at table 4.4 shows that the present forms are used on verbs of all categories by learners across all groups and in larger numbers than both the present perfect and the past perfect forms which are used in

[34] The present forms in this study constitute the base form of the verbs together with the present tense third person singular forms marked by "-s".

small numbers mostly by learners at the higher levels of proficiency. Table 4.6 presents a summary of the distribution of the present tense, the present perfect and the past perfect forms in comparison with the simple past and the progressive forms.

Table 4.6 Distribution of Present, Present Perfect and Past Perfect in Learners' Narratives

Aspectual Classes	Past	Past progressive	Past Perfect	Present	Present Progressive	Present Perfect	Total
Stative	553(86.1)	2(0.3)	1(0.1)	66(10.2)	20(3.1)	1(0.1)	**643(100)**
Activity	254(48.1)	69(13.1)	3(0.6)	114(21.6)	86(16.2)	2(0.3)	**528(100)**
ACC.	89(52.9)	13(7.7)	0(0.0)	45(26.8)	19(11.3)	2(1.2)	**168(100)**
ACH.	642(73.9)	19(2.1)	19(2.1)	117(13.5)	64(7.7)	7(0.8)	**868(100)**
Total	**1538(65.2)**	**103(5.8)**	**23(0.7)**	**342(18.1)**	**189(9.6)**	**12(0.6)**	**2207(100)**

The table in 4.6 shows that the present forms appeared 66 times on stative verbs, 114 times on activity verbs, 45 times on accomplishments and 117 times on achievement verbs. This consisted of only 18.1% of all the verbal forms produced in the learners' narratives compared to the simple past forms which constituted 65.2% of all the verbal forms produced. Even at this low rate of production, the present forms constitute the main competitor to the simple past because the other forms appear at lower rates as shown in table 4.6. This low rate of production of the present forms and high rate of production of the past forms could be attributed to two factors namely the effectiveness of instruction on morphological forms of verbs and effectiveness of the method of data elicitation employed in this study. Recall that this study included as part of the instructions for completing the research tasks the fact that the learners should begin their narratives with the

phrase “Once upon a time” which had the potential to direct the learners to the choice of forms appropriate for this type of narratives.

The production of the present perfect and the past perfect was incredibly low at 0.6% for the former and 0.7% for the latter. These forms emerged at the highest levels of proficiency namely groups 5 and 6 as the examples in (6-10) below show. This is not surprising as the syllabi show that these forms were not introduced at the lower levels where we were able to obtain copies of the course curriculum.

6. On reaching the bottle, he was astonished to discover that the rat **had escaped.** (G5N17)
7. He then walked back to his tent to pack and leave, since he **has failed.** (G5N17)
8. On returning, the cat could not find the rat anymore, as the rat **had escaped.** (G5N27)
9. …a rat **had wanted** to eat up items in Mr Ibu’s compound. (G5N28)
10. …met the bottle empty meaning that mickey **has escaped.** (G6N7)

In the following section we present the results of the data analysis based on lexical saliency and verb structure in an attempt to provide answers to the other parts of our research questions.

4.3 Distribution of Verbal Morphology by Lexical Saliency

The narratives were also coded for the lexical saliency of the verbal structures used by the learners. The aim was to provide potential empirical evidence from the data for the predictions of the cognitive saliency hypothesis (CSH) outlined in Chapter two. For a reminder, the major prediction of the CSH is that the perceptual saliency of the verbal elements determines the acquisition and distribution of the past tense-aspect morphological marking on the verbs. In other words the more frequent and irregular the verbs, the more likely for it to be marked with the past tense-aspect morphology irrespective of the lexical aspectual class of the verb. In this section we

attempt to answer the following research questions; what is the pattern of acquisition and distribution of the past tense-aspect morphology vis-à-vis the predictions of the CSH. Auxiliary questions answered in this section include; are irregular verbs actually more frequent in the narratives of the Ibibio ESL learners and if so what is the pattern of acquisition and distribution of the past tense-aspect morphology that is internal to this class of verbs. Table 4.7 presents the distribution of verbal morphology in the learner's narratives by lexical saliency.

Table 4.7: Distribution of Verbal Morphology by Lexical Saliency

Participants	Irregular Past		Irregular Present		Regular Past		Regular Present		Others		Total
	#	%	#	%	#	%	#	%	#	%	#
Group 1	86	(46.5)	11	(5.9)	23	(12.4)	33	(17.8)	32	(17.2)	185
Group 2	138	(60.2)	6	(2.6)	58	(25.3)	9	(3.9)	18	(7.9)	229
Group 3	142	(55.6)	38	(14.9)	22	(8.6)	27	(10.6)	26	(10.2)	255
Group 4	169	(41.3)	35	(8.6	81	(19.8)	62	(15.1)	62	(15.1)	409
Group 5	297	(45.1)	15	(2.2)	178	(27.1)	47	(7.1)	121	(18.4)	658
Group 6	229	(48.6)	17	(3.6)	115	(24.4)	42	(8.9)	68	(14.4)	471
Total	**1061**	**(49.5)**	**122**	**(6.3)**	**477**	**(19.6)**	**220**	**(10.6)**	**327**	**(13.8**	**2207**

The analysis on table 4.7 shows that the use of the past tense-aspect morphology on irregular verbs was consistently higher than that of regular verbs in the narratives for all groups. Of the 2207 verbal predicates produced by the learners across all groups 1061 tokens making up of a mean percentage of 49.5% constituted irregular verbs marked with the simple past. 447 tokens making up of a mean percentage of only 19.6% were regular verbs marked with the simple past

tense. For example, the highest rate of use of the past marking on irregular verbs is found in group 2 where 60.2% of all verbs produced by the learners in that group are irregular verbs marked with the simple past morphology whereas only 25.3% are regular verbs marked with the past. The general pattern of distribution of the past tense-aspect marking on irregular versus regular verbs is illustrated on the line graph in figure 4.4 below.

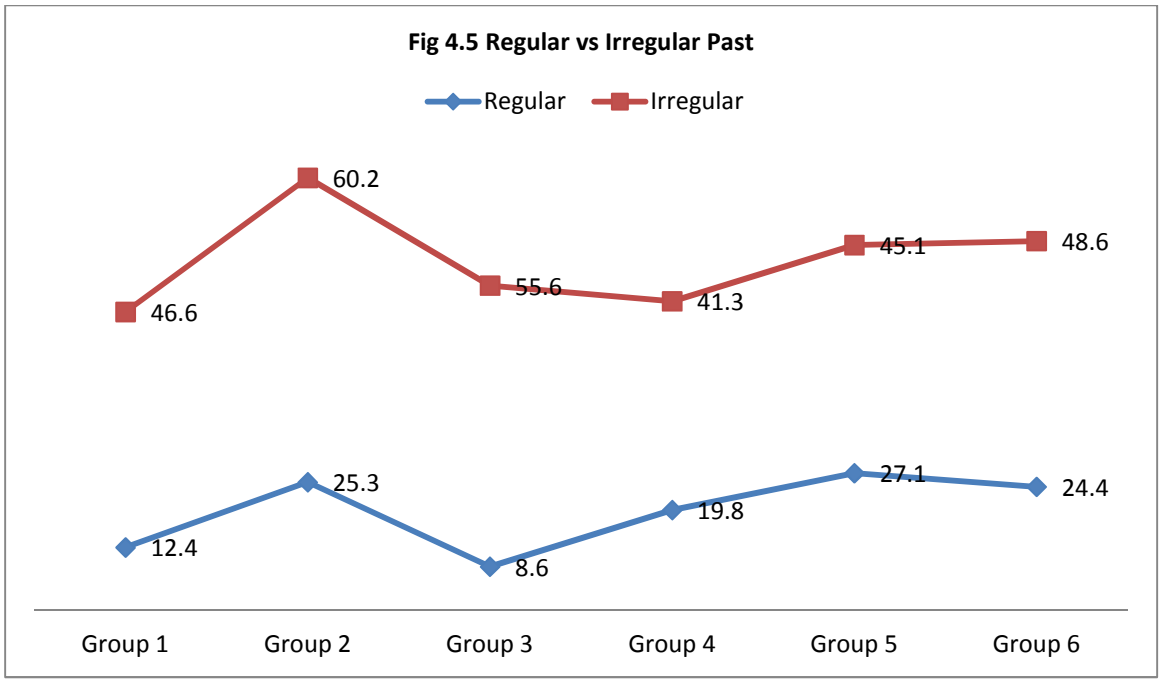


Fig. 4.4: Distribution of Past Tense-aspect on Irregular vs. Regular verbs by Group

The pattern of use of regular versus irregular past tense-aspect morphology shown on figure 4.4 points to developmental sequence that confirms the assumption in previous work. The assumption is that there are two distinct cognitive processes involved in the development of inflectional morphology in a second language: the lexical (item) learning versus the rule-based learning (Salaberry 2000; Pinker 1991; Skekan 1998; Paradis 1994; Schumann 1987; Klein et. al 1995; Wolfram 1985; Sato 1990; Bayley 1994 etc). The lexical learning employs the perceptual saliency and the frequency of the verbal predicates as a cognitive guide into the inflectional morphology of the target language. This has been shown in previous work to kick into operation

long before the rule-based learning and is assumed to be in charge of acquisition of irregular verbs and marking of the past tense-aspect morphology on the same. The rule-based learning employs the morpho-syntactic rules, and according to Paradis 1994, morpho-syntax might be subject to maturational constraints while the lexicon might not. The generalizability of the morpho-syntactic rules serves as a guide into the inflectional morphology of the target language for the learners. The rule-based learning has been shown in previous work to kick into operation later than the lexical learning. This is in line with the claim in Pienemann and Johnston (1987:154) that there is "a developmental principle which predicts that rules which require a high degree of processing capacity are acquired late" in the L2 acquisition process.

Furthermore, a comparison of the results of analysis of the pattern of distribution of the past tense-aspect morphology according to the lexical aspectual classes and according to lexical saliency might lead one to an important conclusion about the order or sequence of application of these two factors, and by implication the acquisitional sequence of inflectional morphology. In the analysis of verbal morphology by lexical aspect we reported that the learners at higher levels of proficiency (groups 4-6) showed partial support for the AH with acquisition sequence as follows: Stative > Achievement > Accomplishment > Activity. We also reported that the learners at lower levels of proficiency (groups 1-3) showed no support for the AH because they showed the following acquisition sequence: Stative > Achievement > Activity > Accomplishment. Compare this to the results of the analysis of verbal morphology by lexical saliency where rates of use of irregular past tense marking are higher at the lower levels of proficiency (groups 1-3) with the mean percentage of 54.1% whereas the rates of irregular past at higher levels of proficiency (groups 4-6) are relatively lower showing the mean percentage of 45%. This means that the learners at lower levels relied more on lexically based learning while the learners at

higher levels are gradually shifting to the rule-based learning. This implies that the effects of the lexical aspectual classes of the verbs may in fact be more relevant at higher levels of proficiency while the effects of the lexical saliency may be more relevant at the lower levels. This is not surprising as the two factors are independent of one another and belong to different dimensions of grammar namely the surface or formal level for lexical saliency and the functional or conceptual level for lexical aspect.

Previous work like Wolfram (1989) and Bayley (1991, 1994) have established the sequence of acquisition of the past tense-aspect morphology internal to irregular class of verbs with the copula (and other suppletive forms), the most irregular of all verbs, taking the lead. This is followed by the doubly marked forms (e.g. sleep vs. slept), followed by forms with internal vowel change (e.g. sing vs. sang) before forms with change in the final segments (e.g. send vs. sent) followed by modals (e.g. can vs. could) as we stated in Chapter two. We can regard this internal developmental hierarchy as empirical evidence that, in fact, the perceptual saliency is a testable factor in acquisition and distribution of past tense-aspect morphology if we can prove that the more different the past form of a verbal element is from its present counterpart, the more likely it is for the verb to be marked with the past (Sato 1990; Salaberry 1999a, 2000; Hawkins and Liszka 2003). To tap into this empirical evidence, we coded the narratives for the distribution of the past tense-aspect morphology according to irregular verbs internal classification and the results are presented on table 4.8 below.

Table 4.8: Distribution of Past Tense-aspect Morphology According to Lexical Saliency Internal to Irregular Verbs

Participants	Form	Suppletive Forms	Doubly Marked	Internal Vowel Change	Final Segment Change
Group 1	Past	48(94.1)	9(100)	32(66.7)	0(0.0)
	Present	1(1.9)	0(0.0)	9(18.7)	0(0.0)
	Others	2(3.9)	0(0.0)	16(33.3)	0(0.0)
	Subtotal	51(100)	9(100)	48(100)	0(0.0)
Group 2	Past	71(97.2)	13(86.7)	54(83.1)	0(0.0)
	Present	1(1.3)	2(13.3)	3(4.6)	0(0.0)
	Others	1(1.3)	0(0.0)	8(12.3)	0(0.0)
	Subtotal	73(100)	15(100)	65(100)	0(0.0)
Group 3	Past	83(86.5)	45(81.8)	13(32.5)	0(0.0)
	Present	12(12.5)	9(16.3)	16(40)	0(0.0)
	Others	1(1.1)	1(1.8)	11(27.5)	0(0.0)
	Subtotal	96(100)	55(100)	40(100)	0(0.0)
Group 4	Past	87(89.7)	56(76.7)	24(47.1)	0(0.0)
	Present	3(3.1)	13(17.8)	13(25.5)	2(33.3)
	Others	7(7.2)	4(5.4)	14(27.4)	4(66.7)
	Subtotal	97(100)	73(100)	51(100)	6(100)

Participants	Form	Suppletive Forms	Doubly Marked	Internal Vowel Change	Final Segment Change
Group 5	Past	115(97.4)	83(77.6)	98(76.6)	5(66.5)
	Present	0(0.0)	3(2.8)	9(7.1)	0(0.0)
	Others	3(2.5)	21(19.6)	21(16.4)	3(37.5)
	Subtotal	118(100)	107(100)	128(100)	8(100)
Group 6	Past	96(93.2)	46(88.8)	82(78.8)	5(62.5)
	Present	3(2.9)	0(0.0)	10(9.6)	3(37.5)
	Others	4(3.8)	7(13.2)	12(11.5)	0(0.0)
	Subtotal	103(100)	53(100)	104(100)	8(100)

Table 4.8 presents a within-category analysis of the past tense-aspect morphology by lexical saliency internal to irregular class of verbs. As it is apparent from the table, the analysis provides a robust support for previous work (Wolfram 1989; Bayley 1994 etc) with regards to the acquisitional sequence within the irregular class of verbs. The table also provides an answer to our auxiliary research question. The auxiliary research question is: how is the past tense-aspect morphology distributed within the irregular class of verbs in the interlangage of the Ibibio ESL learners. The results show that apart from group one where all the (9) tokens of the doubly marked forms appeared with the past tense-aspect marking presenting what seems to suggest that the past tense marking in the doubly marked forms appeared before that on the suppletive forms, all other groups followed the sequence as in the previous studies. The sequence that emerged from our analysis is as follows: Suppletive forms > Doubly Marked forms > Forms with Internal Vowel Change > Forms with Final Segment Change. Even in the case of group one, the total number of tokens of the suppletive forms that appeared with the past tense marking (48) far

outnumbered the tokens of the doubly marked forms. This provides an evidence that the past marking on the suppletive forms may have emerged long before the same on the doubly marked forms. Notice from the table that the least perceptually salient class of irregular verbs namely forms with the final vowel change do not emerge at the lower levels of proficiency (groups 1-3). The first emergence of this form is in group (4) where the (2) tokens are marked with the present. The earliest past form for this class emerged in group (5) with (8) tokens of this forms produced and (5) (i.e.66%) of them are marked with the past tense. Five tokens of this form also appeared in group (6) constituting of 62.5% of all such forms produced by learners in that group. Figure 4.5 provides a succinct summary of the distribution presented on table 4.8.

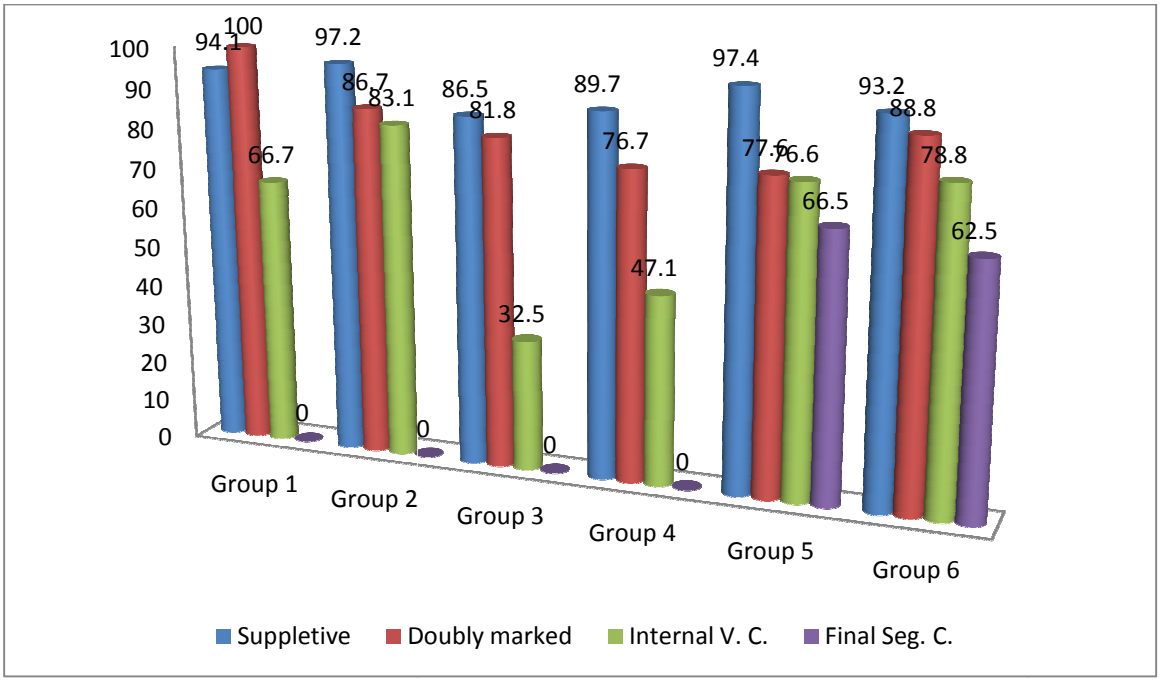


Fig 4.5 A Summary of the Distribution of Past Tense-aspect Morphology by Lexical Saliency Internal to Irregular Verbs

The essence of these results is to provide empirical evidence that perceptual or lexical saliency is a strong factor in determining acquisition and distribution of the past tense-aspect morphology among the Ibibio ESL learners and other learners as postulated on previous studies and the

statistical tests conducted in this study confirm this claim as will become evident in the next section.

4.4 Statistical Relationship among Variables

In this section we explore the relationships among the variables involved in this study in order to test our hypotheses. First we want to explore the relationship between the two independent variables namely lexical aspect and lexical saliency. The assumption is that if the two are related in any statistically significant way, both of them are likely to be related to verbal morphology or influence verbal morphology in a similar way. The table in 4.9 shows a chi-square test of the dependency between the lexical aspectual classes of verbs and the lexical saliency of the verbs as used by the Ibibio ESL learners. But before we present the table, recall that the number of observations of the verbal predicates produced by the learners varied greatly according to the learners' groups which corresponded to the differences in proficiency levels. This makes it clear that comparing the average numbers of suppliance of specific combinations of verbal morphology and lexical aspect or lexical saliency types is not a valid method of comparison among these groups. Instead, we concentrate on the comparison of the percentages of observations falling into various combinations that appear in this data. Because we are looking at proportions and purely categorical or nominal data the appropriate analysis for data of this type is a chi-square test. This is because the various classifications of verbal morphology, lexical aspect, and lexical saliency cannot be easily ordered or made truly numeric in any reasonable way. The chi-square test is a test of independence. The test determines whether the level of one categorical or nominal variable depends on the other. In this case, we are interested in determining whether the acquisition and distribution of verbal morphology depends on the lexical aspectual classes of the verbs, and or whether it depends on the lexical saliency of the

verbs. The outcome of a chi-square test is a P-value which can be defined as the probability that, if verbal morphology is independent of lexical aspect and or lexical saliency, the differences in the distribution of verbal morphology among the various lexical aspectual classes and or lexical saliencies in a random sample would be as large or larger than those seen in this particular sample. Typically speaking, if the P-value is less than 0.05, the likelihood that the verbal morphology is independent of the lexical aspectual classes of the verbs and or the lexical saliency in the population is small enough so that we can say that the dependency is significant (Morgan et al. 2007).

Table 4.9: The Relationship between Lexical Aspect and Lexical Saliency

Table of Lexical Aspect by Lexical Saliency			
Lexical Aspect	**Lexical Saliency**		
Frequency Col Pct	**I**	**R**	**Total**
ACC[35]	58 4.33	110 12.70	168
ACH	564 42.06	304 35.10	868
ACT	232 17.30	296 34.18	528
ST	487 36.32	156 18.01	643
Total	1341	866	2207
Statistic	**DF**	**Value**	**P-Value**
Chi-Square	3	178.1437	<.0001

The chi-square analysis in table 4.9 shows that there is a strong relationship between the lexical aspect and the lexical saliency with the chi-square statistics of (x^2 = 178.14, *df* = 3, N = 2207, p <

[35] ACC = Accomplishment, ACH = Achievement, ACT = Activity, ST = Stative, I = Irregualr, R = Regular Verbs.

.0001). Accomplishments are more likely to appear as regular verbs than as irregular verbs with 4.3% irregular compared to 12.7% regular. Achievements are more likely to appear with irregular than regular with about 42% irregular compared to about 35% regular. Activities are more likely to appear with regular verbs than with irregular verbs with 17.3% irregular compared to about 34% regular and lastly stative verbs are more likely to appear with irregular than with regular verbs with 36.3% irregular compared to about 18% regular. As we said earlier, this makes it likely that if the verbal morphology is related to either the lexical aspect or the lexical saliency, it will be related to the other as well.

Next, we tested the statistical relationship between verbal morphology and lexical aspect across all groups. This test statistically answers the question of whether the acquisition and distribution of the verbal morphology in the interlanguage of the Ibibio ESL learners is influenced by the lexical aspectual classes of the verbs. Table 4.10 presents a chi-square analysis of the relationship between the verbal morphology and the lexical aspect in this data set.

Table 4.10: Relationship between Verbal Morphology and Lexical Aspect

Table of Verbal Morphology by Lexical Aspect					
Verbal Morphology	**Lexical Aspect**				
Frequency Col Pct	**ACC**	**ACH**	**ACT**	**ST**	**Total**
PAPERF	0 0.00	19 2.19	3 0.57	1 0.16	23
PAPROG	13 7.74	19 2.19	69 13.07	2 0.31	103
PAST	89 52.98	642 73.96	254 48.11	553 86.00	1538
PREPERF	2 1.19	7 0.81	2 0.38	1 0.16	12
PREPROG	19 11.31	64 7.37	86 16.29	20 3.11	189
PRES	45 26.79	117 13.48	114 21.59	66 10.26	342
Total	168	868	528	643	2207

Statistic	**DF**	**Value**	**P-Value**
Chi-Square	15	314.946	<.0001

PAPERF = Past Perfect, PAPROG = Past Progressive, PREPERF = Present Perfect, PREPROG = Present Progressive, PRES = Present tense.

The analysis on table 4.10 shows a correlation between the verbal morphology and the lexical aspectual classes of the verbs with a chi-square statistics of (x^2 = 314.94, *df* =15, N =2207, p <.0001). As can be viewed from the table, the past perfect is most often associated with achievements and never associated with accomplishments with 2.19% with achievements and 0.00% with accomplishments. The past progressive is most often associated with activity verbs, and the least often with stative verbs. This is as expected since activity verbs are dynamic whereas stative verbs are not. The past is most often associated with stative verbs and least often

associated with activity verbs. This is not as expected according to the AH. The present perfect is most often associated with accomplishment verbs and least often associated with stative verbs. The present progressive is most often associated with activity verbs and least often associated with stative verbs. Finally, the present is most often associated with accomplishment verbs and least often associated with stative verbs, and this too is not as expected according to the AH.

Generally, it is the case that specific types of verbal morphology strongly co-occur with specific lexical aspectual classes of verbs supporting the AH in that sense. But the general developmental sequences of the verbal morphology in relation to lexical aspect do not completely support the AH. For example, the general sequence of the spread of the past as shown on the table is: Stative (86%) > Achievement (73.9%) > Accomplishment (52.9%) > Activity (48.11%) providing partial support for the AH. The distribution of the past progressive and the present progressive verbal morphology provides a complete support for the predictions of the AH according to the analysis on this table. The developmental sequence for both the past and the present progressive is as follows: Activity > Accomplishment > Achievement > Stative. This is as predicted by the AH though there is a 3.11% overextension of the progressive marking on stative verbs. Notice that the direction of spread of the progressive marking on this table is relatively different than the one presented earlier on table 4.5 where we had the direction of spread as follows: Activity > Achievement > Accomplishment > Stative. The analysis on table 4.5 is an across-category analysis while the analysis on table 4.9 is a within-category analysis. We therefore submit that the spread of the progressive marking completely supports the AH.

Another statistical relationship we explored was the dependency between the verbal morphology and the lexical saliency of the verbs across all groups. This test statistically answers the question of whether the perceptual saliency of the verb influences the acquisition and distribution of

tense-aspect morphology in the interlanguage of the Ibibio ESL learners. Table 4.11 presents a chi-square analysis of the relationship between the two variables.

Table 4.11: Relationship between Verbal Morphology and Lexical Saliency

Table of Verbal Morphology by Lexical Saliency			
Verbal Morphology	**Lexical Saliency**		
Frequency Col Pct	**Irregular**	**Regular**	**Total**
PAPERF	9 0.67	14 1.62	23
PAPROG	52 3.88	51 5.89	103
PAST	1061 79.12	477 55.08	1538
PREPERF	4 0.30	8 0.92	12
PREPROG	93 6.94	96 11.09	189
PRES	122 9.10	220 25.40	342
Total	1341	866	2207
Statistic	**DF**	**Value**	**P-Value**
Chi-Square	5	157.3705	<.0001

The chi-square analysis on this table indicates a strong dependency between verbal morphology and the lexical or perceptual saliency of the verbs. With a chi-square statistics of (x^2 = 157.37, *df* = 5, N = 2207, p < .0001) one can say that the production of the verbal morphology strongly depends on the lexical saliency of the verbs in the interlanguage of the Ibibio ESL learners. Of particular concern to this study is the fact that the past tense-aspect morphology is highly associated with irregular verbs at about 79%. Compare this to its association with regular verbs

at about 55%. All other verbal morphological types associate more with regular verbs than with irregular verbs in this analysis. This is not different than what we observed earlier on table 4.7.

The relationship of verbal morphology to lexical aspect compared to lexical saliency can be explained from the analyses on tables 4.10 and 4.11. One question of interest is; which of the relationship is statistically more significant? This is related to one of our research questions; what is the nature of the interaction between the predictions of the AH and the CSH? It is also related to one of the research predictions made earlier in Chapter two (section 2.8: prediction number 5). The prediction was that when compared, the influence of the lexical saliency on the acquisition and distribution of verbal morphology will be stronger than the influence of the lexical aspect. The fact is that these analyses show identical p-value of <.0001for both indicating that both factors have the same effect size. This is not surprising as we can recall from the analysis in table 4.9 that both the lexical aspect and the lexical saliency are highly related in this interlanguage. This finding corroborates the observation in previous studies like (Salaberry 2000, Hawkins and Liszka 2003, Paradis 1994, Sato 1990, Wolfram 1989 etc) that there are two cognitive processes operating concurrently during the acquisition of inflectional morphology with one operating at the conceptual level (lexical aspect) and the other at the surface level (lexical saliency). This claim will be discussed in more details in the next chapter while we use more specific statistical tests to test our hypotheses in the next subsection.

4.4.1 Hypothesis 1: The Influence of Lexical Aspect on the Past Tense-aspect Morphology

In this section we attempt to decompose the major hypotheses involved in this study and provide specific statistical evidence to either accept the research hypotheses or refute them in favor of the

null hypotheses. But first, we decompose the hypothesis that combined the two independent variables and read:

- The lexical aspectual classes of the verbs and or the lexical saliency will strongly influence the pattern of acquisition and distribution of the past tense-aspect morphology in the interlanguage of the Ibibio ESL learners.

The hypothesis now reads:

- The lexical aspectual classes of the verbs will strongly influence the pattern of acquisition and distribution of the past tense-aspect morphology in the interlanguage of the Ibibio ESL learners.

Following the data analysis, a chi-square test was run to determine the dependency of the acquisition and distribution of the past tense-aspect morphology on the lexical aspectual classes of verbs and the results are presented in table 4.12 below.

Table 4.12 Dependency between Past Tense-aspect Morphology[36] and Lexical Aspect

Table of Verbal Morphology by Lexical Aspect					
Verbal Morphology	**Lexical Aspect**				
Frequency Col Pct	**ACC**	**ACH**	**ACT**	**ST**	**Total**
PAPERF	0 0.00	19 2.79	3 0.92	1 0.18	23
PAPROG	13 12.75	19 2.79	69 21.17	2 0.36	103
PAST	89 87.25	642 94.41	254 77.91	553 99.46	1538
Total	102	680	326	556	1664

Statistic	**DF**	**Value**	**P-Value**
Chi-Square	6	196.9227	<.0001

In table 4.12, the chi-square statistics of (x^2 = 196.92, *df* = 6, N = 1664, p = <.0001) indicates a very strong dependency of acquisition and distribution of the past tense-aspect morphology on the lexical aspect among the Ibibio ESL learners. It is clear from the table that the past perfect is most often marked on achievement verbs and never associated with accomplishment verbs as noted earlier. The past progressive is most often marked on activity verbs and least marked on stative verbs and the simple past is most often marked on stative verbs and least associated with accomplishment verbs. With these results, we can confirm our research hypothesis number 1 which stated that the lexical aspectual classes of the verbs will strongly influence acquisition and distribution of the past tense-aspect morphology among the Ibibio ESL learners and reject the null hypothesis which predicted that there will be no relationship between these two variables.

4.4.2 Hypothesis 2: Influence of Lexical Saliency on the Past Tense-aspect Morphology

Research hypothesis 2 stated as follows:

[36] We include all verbal morphology related to past in this analysis. This is to make the analysis more robust.

- The lexical saliency of the verb will strongly influence the pattern of acquisition and distribution of the past tense-aspect morphology among the Ibibio ESL learners.

In order to test this hypothesis, a chi-square test was run to determine the dependency of the acquisition and distribution of the past tense-aspect morphology on the degree of perceptual saliency of the verb and the results are presented on table 4.13 below.

Table 4.13: Dependency between Past Tense-aspect Morphology and Lexical Saliency

Table of Verbal Morphology by Lexical Saliency			
Verbal Morphology	**Lexical Saliency**		
Frequency Col Pct	**Irregular**	**Regular**	**Total**
PAPERF	9 0.80	14 2.58	23
PAPROG	52 4.63	51 9.41	103
PAST	1061 94.56	477 88.01	1538
Total	1122	542	1664
Statistic	**DF**	**Value**	**P-Value**
Chi-Square	2	23.5469	<.0001

The chi-square statistics of (x^2 = 23.54, df = 2, N = 1664, p = <.0001) indicates that the past tense-aspect morphology is strongly dependent on the lexical saliency of the verbs among the Ibibio ESL learners. Observe from the table that the past perfect and the past progressive are more strongly associated with regular verbs than with irregular verbs whereas the simple past is strongly associated with irregular verbs than with regular verbs. With these results, we can

accept our research hypothesis as stated above and reject the null hypothesis which predicted no relationship between the two variables.

From tables 4.12 and 4.13 we can see that the past tense-aspect morphology has a very strong relationship with both the lexical aspect and the lexical saliency. One question of interest is; which relationship is the most significant? Further analysis using the Freeman-Halton extension of the Fisher Exact test shows that the exact P-value for the dependency between the past tense-aspect morphology and the lexical aspect is 2.077e-36, whereas the exact P-value for the dependency between the past tense-aspect morphology and the lexical saliency is 1.132e-05. We can therefore consider the relationship between the past tense-aspect morphology and lexical aspect to be slightly stronger. This is perhaps due to the existence of more levels for the lexical aspect (ACC, ACH, ACT, and ST,) as opposed to only irregular vs. regular for the lexical saliency. The existence of many levels for the lexical aspect allows for specific associations, but the reality is that the past tense-aspect morphology is strongly dependent on both variables.

4.4.3 Hypothesis 3: Effects of Instruction or proficiency Levels on Acquisition and Distribution of the Past Tense-aspect Morphology

Hypothesis 3 stated as follows:

- Factors like learners' L1, instruction or differences in proficiency levels will strongly influence the acquisition and distribution of the past tense-aspect morphology among the Ibibio ESL learners.

The effects of L1 are difficult to quantify and therefore we provide a qualitative discussion in the next section. However, the effect of instruction or the effect of the differences in proficiency

levels is operationalized as the differences among groups in the production of the past tense-aspect morphology. To determine the effect of instruction on acquisition and distribution of the past tense-aspect morphology among the learners, the participants were reorganized into three groups representing the three levels of educational institutions represented in this study. The reorganization was such that groups 1 and 2 belonged to the primary school level of instruction, groups 3 and 4 belonged to secondary school level of instruction whereas groups 5 and 6 belonged to university level of instruction. A chi-square test was conducted to determine whether there were significant differences among these three groups in the production of past tense-aspect morphology. The results are presented in table 4.14 below.

Table 4.14: Dependency between Past Tense-aspect Morphology and Levels of Instruction

Table of Verbal Morphology by Grade Level				
Verbal Morphology	**Grade Level**			
Frequency Col Pct	**Primary**	**Secondary**	**University**	**Total**
PAPERF	0 0.00	1 0.22	22 2.54	23
PAPROG	41 11.85	36 7.98	26 3.00	103
PAST	305 88.15	414 91.80	819 94.46	1538
Total	346	451	867	1664

Statistic	**DF**	**Value**	**P-Value**
Chi-Square	4	53.1509	<.0001

This table shows a chi-square statistics of (x^2 = 53.15, *df* = 4, N = 1664, p = <.0001) which indicates a highly significant relationship. This shows that the acquisition and distribution of the past tense-aspect morphology is not independent of the learners' levels of instruction. Notice the

steady increase in the rate of production of the simple past from the primary (88.15%) to the secondary (91.80%) to the university levels (94.46%). Also notice that the past perfect verbal morphology is used almost exclusively by the university students while the past progressive morphology is used mostly by the primary school students. Compare table 4.14 with table 4.15 below where we conducted another chi-square test to determine whether there are significant differences among the (6) individual groups included in this study. The past perfect verbal morphology was excluded in this chi-square analysis because the number of observations of the past perfect (expected counts in each cell) for groups 1, 2, 3, 4 and 6 did not meet the requirement for conducting a valid statistical test.

Table 4.15 Dependency between Past Tense-aspect Morphology and Group

Table of Verbal Morphology by Group							
Verbal Morphology	**Group**						
Frequency Col Pct	**1**	**2**	**3**	**4**	**5**	**6**	**Total**
PAPERF	0 0.00	0 0.00	0 0.00	1 0.37	18 3.57	4 1.10	23
PAPROG	28 20.44	13 6.22	16 8.89	20 7.38	11 2.18	15 4.13	103
PAST	109 79.56	196 93.78	164 91.11	250 92.25	475 94.25	344 94.77	1538
Total	137	209	180	271	504	363	1664

Statistic	**DF**	**Value**	**P-Value**
Chi-Square	5	65.3730	<.0001

Table 4.15 shows identical p-value of (p = <.0001) with table 4.14 indicating that, whichever way the analysis is performed, the production of the past tense-aspect morphology is not independent of the levels of instruction of the L2 learners. We therefore accept our research hypothesis as stated above and reject the null hypothesis which predicted no such dependency.

Nevertheless, the fact that the overall dependency of the past tense-aspect morphology on groups is highly significant does not preclude the fact that the dependency between some groups may be more significant or less significant or even not significant at all. For example, the relationship between the past tense-aspect morphology and groups for achievement verbs produced by learners in groups 5 and 6 is not significant as shown on table 4.16 below.

Table 4.16: Relationship between Past Tense-aspect Morphology and Groups for ACH in Groups 5 and 6.

Table of Verbal Morphology by Group			
Verbal Morphology	**Group**		
Frequency Col Pct	**5**	**6**	**Total**
PAPERF	15 6.70	3 1.69	18
PAPROG	1 0.45	4 2.25	5
PAST	208 92.86	171 96.07	379
Total	224	178	402
Statistic	**DF**	**Value**	**P-Value**
Chi-Square	3	5.7358	0.1252*

Table 4.16 shows a chi-square statistics of (x^2 = 5.73, df = 3, N = 402, p = 0.1252) which indicates that for the marking of the past tense on achievement verbs, the difference in levels of instruction did not make any significant difference for these two groups.

4.5 Other Findings

This section presents a qualitative analysis of other features that might show the cross-linguistic influence portrayed in the data. These features may have subtle influence on the production of the tense-aspect morphology by the Ibibio ESL learners. The focus in this discussion is on the perceived equivalence or equivalence assumption made by the L2 learners about the similarities of structures in their L1 and L2 and the conceptual transfer from the L1 to the L2 articulated in the interlanguage of these learners.

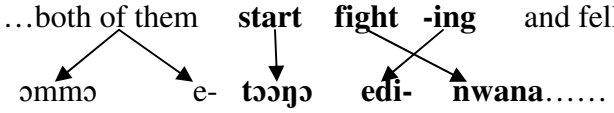
4.5.1: Equivalence Assumption

Equivalence assumption made by L2 learners are similar to those made by bilinguals during the process of code-switching and equivalence constraint had been proposed by researchers to provide explanation for such phenomena in bilingualism (Poplack 1980, 2007; Toribio 2001). According to Poplack (1980:585), "codes will tend to be switched at the points where the surface structures of the languages map onto each other", and Pfaff (1979) adds that the "surface structures common to both languages are favored for switches". In the same way the L2 learners tend to make assumptions about the structural and conceptual equivalence in their target language vis-à-vis their native language.

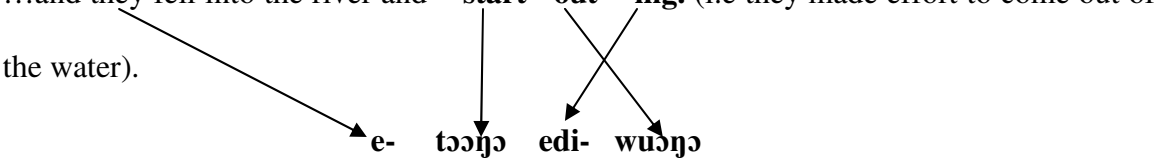
In this study, the learners produced structures that may be analyzed as artifacts of equivalence assumption. Such structures underlyingly transferred the learner's L1 nominalization processes to the L2. These processes attach prefixes to the verb root to derive the nominal form of the verb

using what Essien (1990) refers to as the U-morpheme and the Edi-morpheme in the Ibibio language. The participants used these processes to construct the L2 structures that are similar to the structures generated by the gerundive nominalization process in the L2 (Chomsky 1970). Consider the following examples.

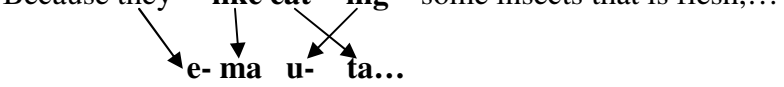
11. Edi- Morpheme:



12. Edi-Morpheme:



13. U-morpheme:



We claim that a large scale use of these type of structure in the data instead of the more conventional main clause plus infinitival clause like "*started to fight"*, "*like to eat", "started to come out etc",* are subtle artifacts of the equivalence assumption on the part of the L2 learners.

Another form of equivalence assumption observable in this data includes the non-canonical use of the preposition *"on"* to introduce verb phrases. The canonical use of the prepositions in the English language is to govern or introduce noun phrases. However, the learners in this study made a large scale use of the preposition *"on"* to introduce verb phrases with the main verbs

appearing in the progressive forms. This might be linked to the fact that the only preposition in the Ibibio language (*ke*) may be used to introduce both the noun phrases and the verb phrases in the language as in these examples where (*ke*) introduces a noun phrase in (14) but a verb phrase in (15).

14. Nwed o- doro **ke** **okpokoro**

book Agr- lay Loc table

The book is on the table

15. A**-** **ke-** **kit** owo, a- feghe

Agr- Loc see person Agr- run

On sighting someone, he ran away.

This type of equivalence assumption can induce transfer as shown in the following structures attested in this data where the preposition *(on)* is used to introduce verb phrases with the progressive marking.

16. **On dropping** the bottle, he went away to get a string… (G6N18)

17. **On going away** some other rat came to remove the rat inside the bottle (G6N18)

18. **On leaving** the scene, other rat came out to rescue the pursued rat (G6N20)

19. Mickey **on sighting** kim started running the race of its life (G6N7)

20. **On noticing** that he was unable to bring out the rat with this two methods…(G6N5)

21. **On hearing** the steps of the hungry cat, the rat ran for its life… (G5N1)

22. The cat, **on reaching** the rat, lifted the bottle up…(G5N20)

23. But **on coming back,** the rat discovered that the rat was no longer in the bottle (G5N20).

As can be noted from these examples, these structures were produced exclusively by learners in groups 5 and 6 (first and third year university students). The production of such structures may

be seen as a stage in the development of the target language and may be linked to the production of the past tense-aspect morphology. This is because a cursory look at these examples shows that the structures appeared in contexts which could have constituted obligatory contexts for past tense had the learners framed the sentences differently. For example, the structure in example (16) could have been framed as *"He dropped the bottle and went away to get a string"* and the one in example (18) could have been framed as *"When he left the scene, other rats came out to rescue the pursued rat"* and so on. We argue that the learners in this study showed artifact of avoidance (Gass and Selinker 2008; Ortega 2009) by introducing the prefix prepositions.

4.5.2 Conceptual Transfer

In addition to the underlying similarities among the world languages claimed by the generative linguists of the Chomskian school, languages differ in innumerable ways especially as regards their grammatical structure. These differences are related to how the speakers of individual languages view the world (linguistic relativity). For example, Boroditsky (2003 cited in Upor 2009) observes that in Mandarin and Indonesian indicating when an event occurred (tense) is optional and is not part of the verbal morphology. On the other hand, in Russian one would need to indicate the gender of the actor apart from assigning the appropriate tense to the verbs. Some studies in second language acquisition have provided supports for conceptual transfer of tense-aspect phenomena. These studies include Ayoun and Salaberry (2008) and Collins (2002). For example, Ayoun and Salabery (2008) and Collins (2002) studied Francophone learners of ESL and found that the Francophone natives frequently overused the present perfect in contexts where the simple past was required, a behavior fully consistent with the influence of the French *passé compose*.

In this study, we examine verbal reduplication in the data as imperfective aspectual device used by the learners. Reduplication is a morphological process whereby categories or constituents in a sentence are doubled. Bybee et al (1994) presents a cross-linguistic analysis of reduplication from two perspectives with one being morpho-phonological and the other functional. The former perspective provides the structural types of reduplication (complete vs. partial reduplication) and the latter perspective associates the process of reduplication with the imperfective aspect like the iterative aspect, the continuative aspect or the progressive aspect, the frequentative aspect etc. Furthermore, Essien (1990:105) discusses reduplication in the Ibibio language and notes that "reduplication for emphasis (in Ibibio) is always accompanied with a progressive interpretation" as in example (24) where a complete reduplicated form is used for both iteration and progression.

24. Ime a- ke- ka- ka urua

    Ime Agr Past reduplicant verb root market

    Ime was going to the market (rather than returning)

The following examples from the learners' narratives show the use of reduplicated structures for similar imperfective aspectual interpretation.

25. …so they were **fighting and fighting** in the small bridge… (G1N7).

26. …so they **fought and fought** at last the two goats fell into the river (G2N28).

27. …so they **run and run** at last both of them catch the rat at the same time (G4N21)

28. …but they **run and run and run** but to their greatest surprise….(G4N18)

29. …the cat **struggle and struggle** to get rat out of the bottle but the cat could not (G5N25)

These examples show that the participants employed complete reduplication of the verbal predicates which are either inflected or base forms to mark the imperfective aspect namely iteration, progression etc. Notice that all of the verbs used in this process are dynamic verbs

(activity verbs) which need continuous input of energy to support the progressive nature of the action expressed in these structures.

Serial verb construction (SVC) is another area of conceptual transfer portrayed in this data. A Serial verb construction has been defined as "a succession of verbs and their complements (if any) with one subject and one tense value that are not separated by any overt marker of coordination or subordination" (Collins 1997:462). The basic structural analysis ascribed to SVC especially in African languages is that the verbs involved in a serialization must share an internal argument. Thus, (Baker 1989, 1991 and Collins 1997) support the idea that "in a serial verb construction, V_1 and V_2 must share an internal argument". Structures that satisfy the internal argument sharing requirement abound in Ibibio language as exemplified by the resultative SVC structure and the instrumental SVC structures in (30-31) below respectively.

30. Emem a- tem udia a- dia

    Emem Agr- cook yam Agr- eat

    Emem cooks yam and eats

31. M- ben eto m- mia ikaŋ m- bom

    I take stick Agr- hit lamp Agr- break

    I use a stick to hit the lamb and break it.

In example (30) the verb *"tem" cook* shares the same internal argument *"udia" yam* with the verb *"dia" eat* because the same entity cooked is the one eaten. Similarly, in example (31), the verb *"mia" hit* shares the same internal argument *"ikaŋ" lamp* with the verb *"bom" break* because the entity hit is the one broken. The learners in this study made use of structures that may be described as SVC with some kind of internal argument sharing though the direct object sharing is not attested in any of the following examples.

32. …so he now **went carry a stick** to remove the rat. G6N22.

33. …so the cat said to dog **come let go** and look for something to eat… G3N7.

34. …instead of this one goat to **wait let this** pass before this one come and pass…G1N6.

35. …they cat **sat facing each other** with the rope in their mouth… G4N14.

Another type of structures attested in the data that might have indirect relationship with SVC in the learners L1 are the following.

36. …it came back with a hook to **remove and kill the rat**… G6N13.

37. …only to **come and find an empty bottle** still standing erect in it base. G6N13.

38. …and they robe that they **use and tied the rat** tie their mouth…G3N17.

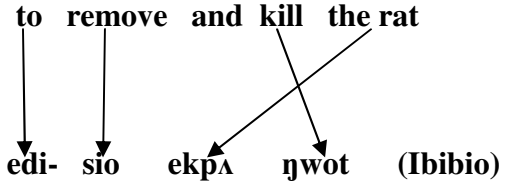
39. …before this one **come and pass** this one said no. G1N6.

40. …they **go and fight there** and fall over the water. G1N30.

41. They **sat and looked at each** in dismay. G4N10.

We argue that these structures have indirect relationship with the SVC because they portray some attributes of the SVC and some attributes of overt coordination structures. For example, the structure in example (36) shows internal argument sharing (a basic attribute of the SVCs found in the learners' L1) plus overt coordinator "*and*" that conjoins the two verbs. That is, *the rat* is what is removed and also what is killed. A translation of this example shows the following direct mapping from the L1 to the L2.

42. …it came back with a hook **to remove and kill the rat**



A look at the structure in 42 shows that all the elements but the coordinator "*and*", are linked to their perceived equivalents in the learners' L1. Therefore, one may argue that the coordinator in this structure, and other similar structures, is inserted at the surface level to satisfy the learners' L2 surface structural constraint. The underlying forms of these structures have SVCs with internal argument sharing and are, therefore, artifacts of conceptual transfer.

4.6 Chapter Summary

In summary, we have achieved the following in this chapter:

- In section 4.1 we presented the results of the raw score analysis of the data and noted that the number of verbal predicates produced by the learners increased as the levels of proficiency of the the learners increased.
- In section 4.1.2 and 4.1.3 we presented an across-category and a within-category analyses of the data where we noted that the observed acquisitional sequence for the past tense-aspect morphology did not support the predictions of the AH at the lower levels of instruction. However, we might claim partial support for the AH at the higher levels of proficiency. These results are displayed in table 4.4 and it shows the direction of acquisition of the past tense-aspect morphology for the learners at the lower levels as follows: **Stative > Achievement > Activity > Accomplishment** (i.e. atelic > telic > atelic > telic verbs). The direction of acquisition for the learners at higher levels according to this analysis is as follows: **Stative > Achievement > Accomplishment > Activity** (i.e. atelic > telic > telic > atelic verbs). We also noted a complete support for the predictions of the AH on the spread of the progressive marking based on the within category analysis in table 4.10.

- Section 4.2 discussed the distribution of verbal morphology by lexical saliency. Here we noted a higher degree of the effect of lexical saliency among the learners at lower levels of proficiency than among the learners at higher levels of proficiency. These results are portrayed in table 4.7 and figure 4.5. We also provided additional evidence for the influence of the lexical saliency on acquisition of tense-aspect morphology by analyzing the sequence of distribution of the past tense-aspect morphology internal to irregular class of verbs as presented in table 4.8.
- In section 4.3 we presented the statistical relationship among variables where we noted statistically significant effects of the lexical aspectual classes of verbs on acquisition and distribution of the past tense-aspect morphology. This result was shown in table 4.12 and it provided the support for the acceptance of our research hypothesis number one. Also, we found statistically significant effects of the lexical saliency of the verbal predicates on acquisition and distribution of the past tense-aspect morphology as presented in table 4.13. This helped us to accept our research hypothesis number two. This section also presented evidence of statistically significant effects of instruction or the differences in proficiency levels on acquisition and distribution of the past tense-aspect morphology. This result was shown in table 4.14 and it provided the evidence for the acceptance of our research hypothesis number three.
- Section 4.4 discussed the cross-linguistic effects among the participants. Here we noted the equivalence assumption and the conceptual transfer as the major sources of the L1 effects among the Ibibio ESL learners in this study. These and other important findings are outlined and discussed in the next chapter.

CHAPTER FIVE

DISCUSSION, SUMMARY AND CONCLUSION

5.1 Introduction

This chapter presents a discussion of the major research findings and the conclusion of this study. Recall that the major aim of this study is to investigate the extent to which the expression of temporality through inflectional morphology by second language learners is determined or influenced by the lexical semantics of the verbs and or the lexical saliency of the verbs. Other factors like the learners' L1 and the differences in the levels of instruction that might influence acquisition and distribution of the past tense-aspect morphology were also investigated. The results of the data analyses and the hypotheses testing revealed the following. (1) There was a significant effect of the lexical aspect on acquisition and distribution of the tense-aspect morphology based on the results of hypotheses testing. (2) There was a significant effect of the lexical aspect on acquisition and distribution of the past tense-aspect morphology based on the results of hypotheses testing. (3) There was no support for the aspect hypothesis (AH) on the sequence of acquisition or direction of spread of tense-aspect morphology among the learners at lower levels of instruction based on the results of the analyses of raw scores and percentages. (4) There was partial support for the AH on the sequence of acquisition or direction of spread of tense-aspect morphology among the learners at higher levels of instruction based on the results of the analyses of raw scores and percentages. (5) There was complete support for the AH on the spread of the progressive marking based on the within category comparison of percentages.

Other results of the data analyses also included the following. (6) We found a significant effect of lexical saliency on acquisition and distribution of the past tense-aspect morphology based on the results of the hypotheses testing. (7) We also found a high degree of influence of lexical

saliency among the learners at lower levels of instruction than among the learners at higher levels of instruction based on the results of the analyses of raw scores and percentages. (8) There is additional evidence on the influence of lexical saliency based on the analyses of the sequence of distribution of the past tense-aspect morphology internal to the irregular class of verbs. (9) The analysis also showed a significant effect of the interaction between groups and the production of tense-aspect morphology indicating a positive effect of instruction. (10) Finally, there were various forms of cross-linguistic effects that influenced the learners' narrative structure in different ways. All these are discussed in comparison with the results in previous studies. An attempt is made to provide the psycho-cognitive explanation for some of these findings wherever applicable. Also discussed in this chapter are the implications of these findings to the theories of second language acquisition of tense-aspect morphology in general, implication of these findings to the English language pedagogy among the Ibibio ESL learners and suggestions on areas of further research into second language acquisition of tense-aspect morphology.

5.2 The Discussion of the Major Findings

We organized the discussion in this section based on the predictions of the aspect hypothesis and the cognitive saliency hypothesis and in consideration of the research findings listed above. The following major areas are discussed: the effects of the lexical aspect on acquisition and distribution of verbal morphology, the spread of other forms competing with the simple past, the spread of the progressive marking, the effects of the perceptual saliency on acquisition and distribution of verbal morphology, the potential effects of instruction and the cross-linguistic effects attested in the learners' production data.

5.3 Effects of Lexical Aspect

Previous empirical studies on acquisition and distribution of tense-aspect morphology have provided robust empirical support for the predictions of the aspect hypothesis (AH) that the lexical semantics of the verbal predicates influence the morphological marking on the verbs (Shirai & Andersen, 1996; Andersen and Shirai 1995; Weist, 2002; Robison, 1995; Bardovi-Harlig, 1995; Andersen, 1991; Collins, 2002, 2004; Ayoun & Salaberry 2008, Robison 1995; Salaberry 1999; Shirai 2007; Bardovi-Harlig & Reynolds 1995 etc). In spite of this enormous recognition of the role of the lexical semantics in acquisition of tense-aspect morphology, other studies have provided evidence to the contrary (Salaberry 2000a; Robison 1990; Rohde 1996, 2002 etc). Specifically, the major predictions of the AH include the fact that at the early stages of acquisition of tense-aspect morphology telic verbs (achievements and accomplishments) will be marked with the past tense before atelic verbs (activities and statives). Another prediction of the AH is that the progressive marking will begin with activity verbs and then spread next to accomplishment verbs before achievement verbs but the progressive marking will not be overextended to stative verbs (Andersen and Shirai (1995), Shirai and Andersen (1996), Ayoun and Salaberry (2008), Bardovi-Harlig (1998a, 2000), Collins (2002), Housen (2002) etc.).

In this study, one of the major findings is that the influence of the lexical aspect is evidenced more at the higher levels of proficiency because there is partial support for the predictions of the AH among the learners at higher levels of instruction. This may be seen as going against the tenets of the AH which predicts that such association would be more evidenced at the beginning stages. Also, contrary to the predictions of the AH, accomplishment verbs rather than stative verbs presented the biggest challenge to the learners in both the rate of production and the rate of past tense-aspect marking. This trend has been shown only in a few studies notably Upor (2009)

who also collected the data from ESL learners with African languages as their L1. Following closely in order of difficulty to the learners was activity verbs which have been noted by other researchers like Ayoun and Salaberry (2008) as presenting the greatest challenge to the learners in the marking of the past tense-aspect morphology. Other studies that have noted activity verbs as presenting the greatest challenge to the learners include Collins (2002) and Bardovi-Harlig & Reynolds (1995). On the other hand, the stative verbs presented the least challenge to the participants in all groups and this was followed by achievement verbs showing a similar pattern as was found in Ayoun and Salaberry (2008).

Generally, the aspect hypothesis predicts the direction of spread or acquisition sequence of the past tense-aspect morphology from achievements > accomplishments > activities > states as stated earlier. In this study, we found mixed results on the direction of spread of the simple past. The direction of spread varied according to the type of analyses presented and the levels of proficiency of the learners. In the across-category analysis presented on table 4.3, the direction of spread of the simple past for the learners in groups 1-4 is from statives > achievements > activities > accomplishments (atelic > telic > atelic > telic) and this does not provide any support for the aspect hypothesis. However, acquisition sequence for the simple past for groups 5-6 according to this analysis is from achievements > statives > activities > accomplishment (telic > atelic > atelic > telic). As we said earlier, achievements overtook statives in this analysis in groups 5-6 because the total number of tokens of achievements produced by participants in these groups outweighed the total number of tokens of the statives produced. And, as you may recall, the across-category analysis has a drawback of being sensitive to the sheer number of tokens of each lexical aspectual category.

However, in the within-category analyses presented on table 4.4, the direction of spread of the simple past for the learners at lower levels; groups 1-3, is from statives > achievements > activities > accomplishments (atelic > telic > atelic > telic, same as in groups 1-4 for the across-category analysis) whereas the direction of spread for the learners at higher levels; groups 4-6, is from statives > achievements > accomplishments > activities (atelic > telic > telic > atelic). These results provide partial support for the AH at the higher levels than at the lower levels of proficiency. To support this direction of spread for the simple past, the results of the statistical tests presented on table 4.10, which we assume to be more reliable, show the general direction of spread or sequence of acquisition of the simple past among participants in this study as follows: **Statives > Achievements > Accomplishments > Activities** (**atelic > telic > telic > atelic**) providing partial support for the AH. This direction of spread, to my mind, pertains more to the learners at higher levels of proficiency because they produced more tokens of all classes of verbs than the learners at lower levels of proficiency and statistical analysis is a game of number.

Though the general direction of spread presented here partially supports the predictions of the AH, the AH cannot provide explanations for why the spread of the simple past should begin with stative verbs followed by achievement verbs across all groups. Also, though the statistical tests show significant p-values for the influence of the lexical aspectual classes of verbs both on verbal morphology in general and on the past tense-aspect morphology based on the fact that specific lexical aspectual categories correlate more with specific verbal morphology, one can say that the direction of spread of the simple past does not completely support the AH. Other studies that found a similar direction of spread include (Upor 2009; Ayoun and Salaberry 2008; Rohde 2002). For example, Ayoun and Salaberry (2008) noted that the performance of their study participants on stative verbs (i.e. marking of the simple past) was significantly different from

their performance on any other classes of verbs. That is, the pariticipants' rates of past marking on the other classes of verbs were not significantly different from one another.

In addition, Rohde (2002) made a subtle distinction between the distribution of the lexical aspectual classes of verbs which, according to that study, supported the AH and the actual marking of the aspectual classes of verbs with the past tense-aspect morphology which, according to that study, did not support the AH. In this study, we have made a similar distinction between the general distribution of the verbal morphology including the simple past, which is significantly influenced by the lexical aspect and in support of the AH, and the direction of spread of the simple past, which does not completely support the AH especially at the lower levels of proficiency.

The direction of spread of the simple past tense-aspect morphology evidenced in this study defied most psycho-cognitive principles used by researchers in the recent literature to explain language acquisition phenomena. Such operating principles include the Relevance Principle, Andersen (1986b, 1989, 1991); the Congruence principle, Robison (1995); the One to one Principle, VanPattern & Lee (1990); the Distributional Bias Hypothesis, Robison (1995a), the Prototype account, Andersen (1991), Wagner (2009) etc. But one can adduce the distributional bias hypothesis to explain the fact that there is a highly significant relationship between the lexical aspectual classes of verbs and both the verbal morphology in general and the past tense-aspect morphology in particular. The distributional bias hypothesis assumes that the L2 learners would exhibit a similar pattern of distribution of any form in their interlanguage as evidenced in the input or the positive evidence around them. If the input exhibits a distributional bias in the distribution of any form, the learners would show the same in their interlanguage. The verbal morphology in interlanguage of these learners is not spread evenly across all the lexical aspectual

classes. Therefore it is plausible to say that this might be a pointer to the fact that the input presented by the teachers in the classroom and the other sources of input attest a similar pattern of distribution. This claim is supported by the fact that this is a L2 environment where every speaker is a L2 learner at one level of proficiency or another.

The direction of spread of the simple past is not explainable by any of the above principles. However, it can be explainable if we consider the claims made by Gavruseva (2002, 2003, 2004, but see Haznedar 2007 for contrary views) in his Underspecification of Aspect hypothesis. As we stated earlier in section 1.8.3, in his analysis, Gavruseva uses telicity as a syntactic feature to classify verbs in the English language into three aspectual classes. These include the statives (state verbs) with the feature V[-Telic], the punctual verbs (achievements) with the feature V[+ Telic] and the non-punctual verbs (activities and accomplishments) with the feature V[+/-Telic]. According to that account, the telicity assignment on stative verbs is fixed and therefore stative verbs would appear in finite contexts in the interlanguage of L2 learners and would be consistently marked with the past. Also, the telicity assignment for punctual verbs is fixed and therefore punctual verbs would appear in finite contexts and be marked with the past. However, the telicity assignment for the non-punctual verbs is not fixed and therefore they would appear in non-finite contexts in the interlanguage of L2 learners and would not be consistently marked with the past. This seems plausible because the telicity assignment on verbs like "*walk"* can be different depending on the context they appear as in *"walk to school"* where it is telic (accomplishment) and *"walk in school"* where it is atelic (activity).

If we adopt this principle, we can argue that the Ibibio ESL learners in this study marked more statives verbs and achievement verbs with the past tense-aspect morphology because the telicity

assignment of these categories is fixed. But the learners failed to mark or even produce more accomplishment verbs because the telicity assignment on this category is not fixed.

5.4 Spread of the Progressive

The spread of the progressive marking in this study provides a more robust support for the predictions of the aspect hypothesis. First there is predominance of use of the progressive marking on activity verbs by all groups of participants as predicted by the AH. However, the across-category analysis on table 4.5 shows that the direction of spread of the progressive marking across the lexical aspectual classes is from activity > achievement > accomplishment > statives which does not completely support the AH. But the overall spread of the progressive marking following a statistical analysis (which we assume to be more reliable) presented on table 4.9 shows the direction of spread from activity > accomplishment > achievement > stative in complete support of the AH. The support for the AH with respect to the production and the spread of the progressive marking has been widely reported in recent studies of tense-aspect morphology (Andersen and Shirai 1994, Bardovi-Harlig 1998, 2000; Robison 1995; Salaberry 1999 etc). For example, Robison (1995) found that, contrary to his prediction, the affiliation of the progressive with activity verbs strengthens as the learners increased in proficiency levels. In this study, the affiliation of the past progressive marking with activity verbs increased according to the learners' proficiency levels from 36.2% to 61.6% to 87.6% in groups 1-3 respectively. But it began to decrease from 85% to 81.8% to 66.7% in groups 4-6 respectively as shown on table 4.5. This shows an increase according to proficiency level at the lower levels of instruction but a decrease according to proficiency levels at the higher levels of instruction.

Moreover, there is overgeneralizaton of the progressive marking to stative verbs contrary to the predictions of the AH. This was also reported in (Upor 2009, Robison 1990, 1995, Rohde 1996,

2002 etc). As we noted earlier in section (4.1.3.2), we attributed this to L1 effect because the syllabi presented in Chapter three clearly showed that these learners had received instructions on the appropriate use of the progressive marking starting from the lowest education level included in this study. This claim discounts the effects of lack of instruction as adduced by Housen 2002.

The congruence principle can be used to explain why the progressive morphology is predominantly marked on activity verbs. The congruence principle is a corollary of Bybee's (1985) relevance principle and it asserts that the L2 learners would associate inflections or verbal morphology with a verbal predicate according to how congruence the meaning of the inflection is with the meaning of the verbal predicate. Activity verbs are dynamic verbs which require a continuous input of energy to mark the progression or the continuation of the event discussed. The progressive morphology (-ing) in the English language and other languages mark progression thereby creating the congruence or feature matching between it and activity verbs. This also resonates with the prototype account of Andersen (1991) etc.

The other morphological forms evidenced in the data included the present tense forms, the present and the past perfect forms, the overgeneralization of the past forms and the regularization forms. The present tense forms presented the most competition with the simple past as we stated earlier in Chapter four constituting about 18% of all verbal inflections used by the learners in this study. This is a relatively low rate for the present tense marking compared to 65% for the simple past and this can be attributable to the effectiveness of instruction on morphological forms of verbs and effectiveness in the methods of data elicitation employed in this study. Among all the verbal morphology evidenced in this interlanguage, the present and the past perfect forms presented the greatest challenge for the learners because these forms did not emerge at the the lower levels up until groups 5 and 6 (first and third year university students). We argue that this

is a result of lack of instruction on these forms because they were not introduced to the learners at the lower levels based on the contents of the course syllabi presented in Chapter three.

5.5 The Effects of the Lexical Saliency

Previous studies on acquisition and distribution of verbal morphology have also reported enormous support for the predictions of the cognitive saliency hypothesis. The CSH states that the perceptual saliency of the verbal predicates determines the acquisition and distribution of inflectional morphology on the verbs such that the more irregular and frequent the verbs, the more likely they would be marked with the past tense-aspect morphology (Salaberry 2000; Sato 1990; Bayley 1994; Hawkins and Lizska 2003; Wagner 2009; Wulff 2009 et al. etc.).

In this study we found a statistically significant effect of the lexical saliency on acquisition and distribution of the past tense-aspect morphology. Most importantly, we found that the effect of the lexical saliency was more significant at the lower levels of proficiency than at the higher levels. Similar results have been reported in previous work like Sato (1990) who conducted a 10-month study of two Vietnamese children who were at a very low level of proficiency. The results showed that the learners used only the lexical past verbs (i.e. irregular past forms) as the only means to mark the past tense. This may provide evidence that irregular past verbs are listed as independent lexical items in the mind (the mental lexicon) of the learners enabling them to select and use them as lexical entities though the rule for generating regular tense-aspect morphology may not yet have been acquired. What this means is that the past forms of irregular verbs may be listed as independent items separate from their present forms. This is not the case with the regular verbs where only the base forms are listed in the lexicon whereas the past tense forms and other forms are syntactically generated guided by the generalizability of the morpho-syntactic rules. This argument is strongly motivated by the presence of the doubly marked forms

like *"strucked"(G5N23), "sanked" (G6N13), "caughting"(G4N26)* etc in the interlanguage of participants in this study. One can argue that it is the case that since the past forms are listed independently, the learners marked them with the past when they were selected for use.

Apart from the perceptual saliency of the verbal predicates, another important feature that has been adduced in previous studies of the cognitive saliency is the frequency of the verbal predicates. The claim is that the frequency of a form is important in learning because the most frequent form provides the prototype for that category and the learners identify and acquire the prototypical forms of a category first (Ellis 2006b; Gries and Wulff 2005; Robison and Ellis 2008 etc.). In fact (Wulff et al. 2009) shows that the 10 most frequently used verbs in the British National Corpus (BNC) are all irregular verbs. In this study, we found that the learners produced far more tokens of irregular verbs than regular verbs. This resulted in a corresponding higher rates of the past tense marking on irregular verbs with 49.5% of all the verbal predicates produced constituting irregular verbs marked with the past compared to about 19% constituting regular verbs marked with the past. On the contrary, the learners marked more regular verbs with the present than they marked irregular verbs with about 10% of all the verbal predicates produced constituting regular verbs marked with the present compared to about 6% of all the predicates produced constituting irregular verbs marked with the present.

Similar results were reported in Salaberry (2000) which showed that among the verbs marked with the past tense by the participants in both the oral and written narratives, approximately twice as many were irregular verbs (40% irregular verbs vs. 26% regular verbs in the oral narratives and 56% irregular verbs vs. 26% regular verbs in the written narratives). We argue

that this pattern of distribution is an artifact of the L2 learners' response to the distributional bias in the available input which serves as the positive evidence for the learners.

Another important findings in this study is that the pattern of distribution of the past tense-aspect marking internal to the irregular class of verbs provides additional evidence that perceptual saliency plays an important role in determining the sequence of spread of the past tense-aspect morphology. The results of the analyses of the pattern of distribution of the past tense marking internal to the irregular class of verbs showed a decreasing rate of the past tense-aspect marking as the perceptual saliency of the verbs decreased. The results showed that the most perceptually salient suppletive forms showed a higher rate of the past tense marking than the least perceptually salient final segment change forms. Similar results were found in previous studies like Wolfram (1989; Bayley 1991, 1994 etc) as noted earlier.

5.6 Effects of Instruction

Certain interlanguage features have been attributed to a lack of instruction on those features or to the fact that the learners were not instructed in the target language at all. For example, Housen (2002) attributed the overgeneralization of the progressive marking on statives reported in Robison (1990) and Rohde (1996) to the fact that the participants in those studies were untutored. In addition, tutored learners have been reported as attaining the morphological stage of tense-aspect acquisition faster than untutored learners. However, according to the European Science Foundation studies (ESF) (Dietrich et al. 1995 reported in Bardovi-Harlig 2000), though all learners in those studies had virtually the same instruction, stages of development at the end of the observation period varied by learners. This showed that other factors like the input

frequency, motivation and other affective factors, input from the L2 contacts and so on, may be in involved.

In this study, all the participants were instructed classroom learners and had fully entered the morphological stage of expression of temporality as evidenced by the fact that the various forms of verbal morphology were produced by the learners in all groups. This means that the learners included in this study had already advanced through both the pragmatic stage and the purely lexical stage of temporal reference. However, there were differences among groups that can be attributable to the differences in the amount of instruction received. For example, table 4.14 showed a steady progression in the rate of the past tense marking from the primary to the secondary to the university levels of instruction.This presented a statistically significant effect of the differences among these stages of education in the target language. In the same way, table 4.15 presented an overall significance in the differences among groups in the rates of production of the past marking. But the progressive increase from one group to another was not as clear as in table 4.14. This implied that the differences among groups within each education level may not be significant in all cases. We have confirmed this in the case of the difference between groups 5 and 6 on the rate of acquisition of the past marking on achievement verbs. This lack of significant differences among groups belonging to the same level of education may be a result of the sameness or the similarity in methods of instruction and curricula contents. However, group 2 stands out by showing a highly significant difference from group 1 in the production of the past tense marking and all other verbal morphology.

The simple past tense marking is not the only verbal morphology that showed differences among groups that may be attributable to the effects of instruction. The spread of the past progressive showed a very interesting pattern that might be directly attributable to the positive effect of

instruction with the highest rate of acquisition of about 20% in group 1 compared to about 6%, 8%, 7%, 2% and 4% for groups 2, 3, 4, 5 and 6 respectively. This pattern is because the syllabi for group 1 presented in Chapter three (section 3.5) clearly showed that instruction on the Past progressive was received by the learners. Another verbal morphology with interesting pattern of distribution in relation to effect of instruction was the present and the past perfect marking. These forms did not emerge at the primary and the secondary (groups 1-4) levels of instruction and the syllabi for these levels showed no sign of instruction in these forms. The emergence of these forms at the university (groups 5-6) level of instruction indicated that instruction might have been given as the learners progressed to this level though we were not able to obtain a copy of the course curriculum at this level to evidentially confirm this claim.

5.7 Cross-linguistics Effects

Underuse and overuse in the L2 learners' language (a notion related to avoidance) have received much attention in recent SLA research. The hypothesis is that the L1 knowledge can inhibit certain L2 choices and prime others, thus resulting in the underuse or the overuse of certain L2 forms in both the spoken and the written learners' production (Ortega 2009; Jarvis and Odlin 2000; Jarvis 2002; Odlin 2003). In section 5.3 of this study we argued that the Ibibio ESL learners marked more stative verbs and achievement verbs with the past tense-aspect morphology because the telicity assignment for these categories were fixed but failed to mark or even produce more accomplishments because the telicity assignment of this category was not fixed. A comparison of the lexical aspectual categories of the learners' L1 and L2 (Ibibio and English) showed that this may not be the whole story. As we stated in Chapter one, the telicity assignment on the durative events (a lexical aspectual class of verbs that may be thought of as equivalent of accomplishment verbs in English) in Ibibio is also not fixed. We argue here that the

reduced rate of production of accomplishment verbs and the corresponding reduced rate of the past tense marking on the same is an evidence of underuse. Recall that the telicity assignment on the English accomplishment verbs can be pinned down or specified in contexts as we discussed earlier in section 5.3 with the distinction in telicity in examples such as *"walk to school"* (telic) and *"walk in school"* (atelic). This is not the case in the telicity assignment on the durative events in Ibibio where the contexts cannot help as we illustrated in Chapter one. The result of this asymmetry is that the learners, especially those at the lower levels of instruction, are still grappling with the conceptual underpinnings of these categories as evidenced in the fact that the learners at higher levels of instruction performed relatively better on both the rates of production and the past tense marking on the English accomplishment verbs.

A similar case of underuse of the L2 forms was reported in Jarvis and Odlin (2000). According to this source, Finnish-speaking adolescents underused the English prepositions such that many of them (but none of the Swedish learners included in the study) produced instances of zero preposition. The authors claimed that this was a result of the differences in the way the L1 and L2 marked location. In Finnish, location is marked by adding suffixes at the end of the words in an agglutinative manner whereas in the English language the prepositions are free morphemes. Thus agglutinative morphology of the L1 indirectly biased many learners to underuse the prepositions in the L2.

Other evidence of cross-linguistic effect found in this study includes the equivalence assumption and the conceptual transfer. Learners in this study transferred the nominalization processes from the L1 in the assumption that they may be equivalent to the gerundive nominalization process in the L2. This was in addition to the cases of avoidance leading to the non-canonical use of the preposition *"on"*. The conceptual transfer was shown in the form of reduplicated structures of

various kinds which the learners used to mark the concept of imperfective aspect including iteration and progression. Conceptual transfer also appeared in the serial-verb-construction structures of various kinds where the learners employed the underlying concepts in the L1 to construct the L2 structures. All of these cross-linguistic effects had overall influence on the learners' narrative structure.

A survey of the previous studies on cross-linguistic influences shows that L1 transfer may or may not lead to ungrammatical L2 solutions (Gass and Selinker 2008, Ortega 2009). This is true of the cases of the transfer of the Ibibio nominalization processes and the non-canonical use of the preposition by the Ibibio ESL learners discussed in this study. Transfer can be manifested in errors of commission, errors of omission (avoidance) and even L1-patterned frequencies (overuse and underuse) as in the case of the under-production and under-marking of the past on the English accomplishment verbs by the Ibibio ESL learners reported in this work. It can also result in subtle effects beyond the form-to-form or the form-to-function misidentifications as evidenced in the conceptual transfer of the reduplication and the serial-verb-construction processes reported in this work.

A survey of the previous studies has also shown that the knowledge of additional languages other than the L1 can influence the L2 or L3 acquisition. Some participants in this study spoke the Nigerian Pidgin English which is an admixture of the Standard Nigerian English with the local languages spoken in Nigeria. However, none of the participants indicated this in the language survey reported in Chapter three. We did not attribute any of the cross-linguistic effects reported in this work to transfer from the Nigerian Pidgin English because of our knowledge of the mode of crystallization of pidgin languages in general and the variety of the Nigerian Pidgin English spoken in the research area as reported in works on the formation of pidgin languages

(Bergmann et al. 2007). For the Nigerian Pidgin English spoken in the research area, the Standard Nigerian English is the supperstratum and the major lexifier while the local languages, mostly Ibibio, is the substratum and the donor of the morpho-syntactic rules use in constructing structures in the pidgin language. It is therefore logical to say that the transfer phenomena reported in this work are original attributes of the learners L1 and not those of the Nigerian Pidgin.

Some of these transfer cases are peculiar to the participants in this study because they have not been reported before in previous studies of second language acquisition of tense-aspect whereas others have been reported in previous studies. For example, the transfer of the nominalization process, serial-verb-construction process and the use of the constructions headed by the preposition *"on"* to avoid the simple past constructions have not been reported in previous studies. However, Upor 2009 reported the transfer of the reduplication process among the Tanzanian EFL learners.

5.8 Summary of the Major Findings

In this section we summarize the research findings discussed here and put the major findings at a glance for the readers. We present an outline of the major research findings as they relate to the predictions of both the AH and the CSH each accompanied by references to previous studies (if any) that have reported either similar findings or contrary views.

- The influence of the lexical aspect on acquisition and distribution of the past tense aspect morphology is evidenced more at the higher levels of instruction than at the lower levels contrary to the predictions of the AH and the research reports in Bardovi-Harlig (1998) and Anderson (1991) etc. (find the support for this claim in table 4.4).

- Accomplishment verbs presented the most challenge to the learners on both the production rate and the marking of verbal morphology in general and the past tense-aspect morphology contrary to predictions of the AH. Similar findings were reported in Upor (2009). (find the support for this claim in tables 4.3 and 4.4 and figure 4.4).
- Stative verbs presented the least challenge for the learners on both the rate of production and the marking of the past tense-aspect morphology as similarly reported in Ayoun and Salaberry (2008). (find the support for this claim in figure 4.4)
- The general sequence of acquisition or direction of spread of the past tense-aspect morphology among the Ibibio ESL learners is as follows: **Stative > Achievement > Accomplishment > Activities** presenting partial support for the AH. However, this partial support pertains more to the learners at the higher levels of instruction since they produced more tokens and marked more verbs with the past tense-aspect morphology than the learners at lower levels of instruction where we did not find support for the AH based on results of both the across-category and the within-category analyses. (find the support for this claim in tables 4.4 and 4.12 and figure 4.4).
- Statistically, we found significant effects of the lexical aspect on acquisition and distribution of the past tense-aspect morphology based on the results of hypothesis testing and a similar finding was reported in Collins (2002) and Ayoun and Salaberry (2008) etc. (find the support for this claim in table 4.12).
- The direction of spread of the past tense-aspect morphology reported in this study is not explainable by the tenets of the AH but it can be explainable by the tenets of Gavruseva's (2002, 2003, 2004) Underspecification of Aspect hypothesis.

- The overall spread of the progressive marking completely supports the prediction of the AH and is as follows: **Activities > Achievements > Accomplishments**. This result is similar to research reports in Bardovi-Harlig (1998); Robison (1995); Salaberry (1999) etc. However, there were overgeneration of progressive marking on stative verbs contrary to the prediction of the AH and similar results were reported in Robison (1990) and Rohde (2002). Also the association of the past progressive with activity verbs increased with proficiency levels of the learners as also reported in Robison 1995. (find the support for these claims in tables 4.10).
- Generally low rates of the present tense marking attributable to the effectiveness of the teaching methods and the data elicitation methods. (find the support for this claim in tables 4.3 and 4.4).
- None emergence of both the present and the past perfect forms at the lower levels of instruction attributable to the lack of instruction on these forms. (find the support for this claim in tables 4.3 and 4.4 and examples 6-10).
- Highly significant effect of the lexical or perceptual saliency on acquisition and distribution of the past tense-aspect morphology based on the results of hypotheses testing as also reported in Salaberry (2000) and Hawkins and Lizska (2003). (find the support for this claim in table 4.13)
- There are higher effects of lexical saliency at the lower levels of instruction than at the higher levels and similar reports can be found in Sato (1990). (find the support for this claim in table 4.7 and figure 4.4).
- The pattern of acquisition and distribution of the past tense-aspect morphology internal to irregular class of verbs provides additional support for the prediction of the CSH which

states that the perceptual saliency of the verbal predicates determines acquisition of the past tense-aspect morphology as also reported in Wolfram (1989) and Bayley (1991, 1994). (find the support for this claim in table 4.8 and figure 4.5).

- There was a comparable effect size for the lexical aspect and the lexical saliency on acquisition and distribution of the past tense-aspect morphology based on the results of hypotheses testing indicating that both variables are equally important. (find the support for this claim in table 4.12 and 4.13).
- There were positive effects of instruction evidenced in the steady progression in the rates of the past tense-aspect marking from the primary to the secondary to the university levels presenting statistically significant differences among these stages of education. However, though there were significant differences among groups in general, not all groups within each level of education were significantly different from one another. (find the support for this claim in table 4.14 and 4.16).
- There was an underuse of the L2 accomplishment verbs attributable to the transfer of the unfixed telicity orientation of the L1. A similar report of underuse of the L2 structures attributable to the L1 effect can be seen in Jarvis and Odlin (2000).
- There were cases of equivalence assumption evidenced in the transfer of the nominalization processes from the L1 on the assumption that it is similar to the gerundive nominalization process in the L2. (find the discussion in support of this claim in section 4.4.1).
- There was an evidence of avoidance of the simple past constructions through the use of the preposition *"on"* to introduce verb phrases in the L2 because the use of a similar

preposition in the L1 to introduce verb phrases is permissible. (find the discussion in support of this claim also in section 4.4.1).

- There were cases of conceptual transfer of the processes of reduplication and serial-verb-construction which jointly influenced the learners' narrative structure (find the discussion in support of this claim in section 4.4.2).
- The question of what implication these findings have on the future research in L2 acquisition of tense-aspect morphology is answered in the next section.

5.9 Implication for Research on Acquisition of Tense-aspect

The differences in research design have the potential of causing the differences in research results even in cases where the research is conducted in the same research area with the same or similar data elicitation method. This study was cross-sectional in design in which the researcher collects the data from the study participants at one point in time during the development of the research variable under consideration. This method can only provide a snap-shot of the state of development of the linguistic structure under investigation. This makes it difficult to capture and explain the emergence and the evolution of the linguistic phenomena studied. The developmental effect can only be observed in cross-sectional studies if the learners are organized into different proficiency levels as we have done in this study. Even with that, the emergence and evolution of the linguistic phenomena in individual participants is difficult to capture and describe. However, generalization of research results is attainable with the use of this design. Nevertheless, it would be interesting to observe the behavior of a few individual participants in relation to the emergence and development of the past tense-aspect marking and other verbal morphology among the Ibibio ESL learners. Longitudinal studies in this research area may provide interesting corroborative or contrary findings to this study though we know that generalization of such

findings is difficult to attain with longitudinal design. However, we would be able to observe exactly when the verbal morphology first emerged in the interlanguage of a few individual participants. We would also be able to observe how it evolved over time and what the nature of the earlier stages of temporal reference were like; a feat that the present study could not attain.

This study investigated only L2 learners' narratives in relation to the pattern of acquisition and distribution of the past tense-aspect morphology. We found cross-linguistic effects that are peculiar to this group of participants and have not been reported in other studies. It would be interesting to investigate the effects of *teacher talk* among the teachers in this research area to see whether they show a similar pattern of L1 effects in their narrative structure. This might be another way to support the distributional bias hypothesis if similar pattern emerged among the teachers Wagner (2009).

While the influence of lexical aspect on acquisition and distribution of tense-aspect morphology may be universal as previous studies and this study have supported (Shirai 1991, 2007), the stage along the developmental pathway where the effects of the lexical aspect are most operative is still unsettled. This is because the AH predicts the earlier stages but this study found the influence more operative at the higher levels of proficiency. More cross-linguistic study is needed to show whether there are differences based on the L1 of the learners and so on. Also unsettled is the use of the Vendlerian 4-way classification of the lexical aspectual classes of verbs which may not be universal and Ladiere 2003 had sounded a warning that researchers should be careful while using this classification or risk reading too much semantic distinction into the interlanguage of L2 learners, especially with respect to the distinction between achievement verbs and accomplishment verbs which the ESL learners may not make in their interlanguage. This problem could be accentuated if the learners' L1 does not make such a

distinction as in the case of the learners in this study. Therefore, researchers should investigate more into the verbal semantics of the participants' L1 in order to be able to decipher the subtle effects that the differences between the target language and the learners' L1 may have on the learners' performance.

Placement tests used to determine the exact proficiency levels of individual participants included in a research study (Collins 2002, 2004; Bardovi-Harlig and Reynolds 1995) may be necessary in future studies in this research area. This study used the grade levels of the participants to organize the learners into groups. This may not be the most effective way to place the learners into groups as the learners in group 2 consistently showed superiority in acquisition and distribution of the verbal morphology than groups 1 and 3 in this study. This means that most individual participants within group 2 were significantly different than other members of the group and even adjacent groups and should have been included in groups with higher levels of proficiency. Such outlier participants usually distort or skew results of studies and make it difficult to observe the developmental effect across the groups of participants.

Logistic constraints did not permit this study to elicit oral narratives from the study participants and so this study cannot assess the task effect and the planning time effect (Salaberry 2000) on the pattern of the past tense-aspect marking among these learners. It would be interesting to use other methods of data elicitation or collect other forms of data from these learners to see if the results from such studies would corroborate or contradict some of the findings in this study. We now turn our attention to the question of what the implications are of these findings to the teaching and learning of the English language in the research area.

5.10 Implication of Research Findings to the English Pedagogy in the Research Area

Displacement is a cardinal feature of human language; one which sets it apart from other forms of communication used by other primates.This is because it enables humans to use language to express complex thoughts, ideas and propositions that may be displaced from the moment of speech. This allows humans to overcome the tendency to depend on the instinctive and emotional methods of expressing needs that depend on the 'here and now' evidenced in other species. The feature of displacement could not be attainable without the morpho-syntactic features of tense and aspect in human language. This explains why acquisition of tense-aspect morphology is so important to both the L1 and the L2 learners in all language learning situations. In this section we explore ways in which the findings of this study could be used to improve the English language teaching and learning in the research area especially as it pertains to the acquisition of tense-aspect morphology.

One of the findings of this study is that the differences in the lexical semantics of the verbal predicate in the learners' L1 and L2 can lead to either the underuse or the overuse of some lexical categories. This can result in corresponding lower rates of the past tense-aspect marking on such categories as in the case of the underuse of the English accomplishment verbs by the participants in this study. We recommend that the L2 curriculum designers should be individuals who have the knowledge of the subtle differences between the L1 and the L2 lexical semantics and who are committed to designing syllabi that can tackle this problem of underuse from early on.

Also, the results of this study showed positive effects of instruction where the forms were introduced and the learners given instructions on such forms. However, we found out that forms like the present and the past perfect were not introduced at the lower levels of instruction at all

and therefore the production of these forms was none existent at those levels. We recommend that such forms be incorporated into the syllabi from the early stages so that the learners could be introduced to such forms at the early levels of instructions.

Positive cross-linguistic effects should be noted and used to the learner's advantage. For example, the equivalence assumption and the conceptual transfer found in this study should be tapped into as some of the learners' strategies that can be exploited to their advantage especially where they result in positive solutions to the target language problems. A case in point is the transfer of the nominalization and the serial-verb-construction processes among the Ibibio ESL learners. In the case of the transfer of the serial-verb-construction process, learners should be instructed on the differences between the strings of predicates separated by coordinators and those without coordinators. The learners should be urged to use the former in the target language narratives. The awareness of the two types of structures on the part of the learners has the potential to avert negative transfer.

Another important finding in this study is that the learners at the lower levels of instruction rely more on the perceptual saliency (the formal component) of verbal predicates as a guide into the morpho-syntactic system of the target language. This study recommends that the curriculum designers consider Long's (1991) suggestion that attention be paid to focus-on-formS (Cook 2008). We recommend that focus-on-formS items be included in the syllabi at the lower levels of instruction in order to tap into this type of learner strategy. For example, the phonetic components of the tense-aspect markers as they are manifested in different phonetic environments should be discussed in the classroom. The learners should be instructed on the fact that the third person singular present tense marker *"-s"* is realized as *"-s"* after voiceless consonants, as *"-z"* after voiced consonants and as *"-iz"* after sibilants and that the regular past

tense marker "-ed" is also manifested in different variants depending on the phonetic environment. This has the potential of bringing the different phonetic shapes of the various tense-aspect markers to the fore thereby enhancing their perceptual saliency.

5.11 Conclusion

This study was a cross-sectional study whose major aim was to describe and analyze the pattern of acquisition and distribution of the past tense-aspect morphology among the Ibibio ESL learners sampled from various schools and levels of education in Akwa Ibom State of Nigeria. The results of the data analyses revealed a statistically significant relationship between the lexical aspectual classes of the verbal predicates and the acquisition and distribution of verbal morphology in general and the past tense marking in particular. The results also revealed a statistically significant relationship between the perceptual saliency of the verbal predicates and acquisition and distribution of the past tense-aspect morphology. However, the relationship between the two independent variables and verbal morphology was mediated by the influence of the differences in levels of proficiency. The results showed that the influence of the perceptual saliency of the verbal predicates tends to be more relevant among the learners at lower levels of instruction than among the learners at higher levels. On the other hand, the influence of the lexical aspectual class of the verbal predicates tends to be more relevant among the learners at higher levels of instruction than among the learners at lower levels of instruction. Aspect hypothesis cannot explain why the influence of lexical aspect should be more prominent at higher levels of instruction than at lower levels. We claim that that the issue of the point along the developmental pathway where the influence of lexical aspect is relevant is not settled and therefore open to future research. Based on these findings, we argue that there are two distinct but related cognitive processes involved in the development of inflectional endings in second

language acquisition. These include the lexical-based learning which is operative at the lower levels of proficiency and employs the perceptual saliency and frequency of the verbal predicates as a cognitive guide into the inflectional morphology of the target language plus the rule-based learning which is operative at the higher levels of proficiency and employs the generalizability of morpho-syntactic rules as a guide into inflectional morphology of the target language. This type of study has rarely been conducted among the participants whose L1 is an African language and therefore a replication of this study among other participants of African origin is recommended.

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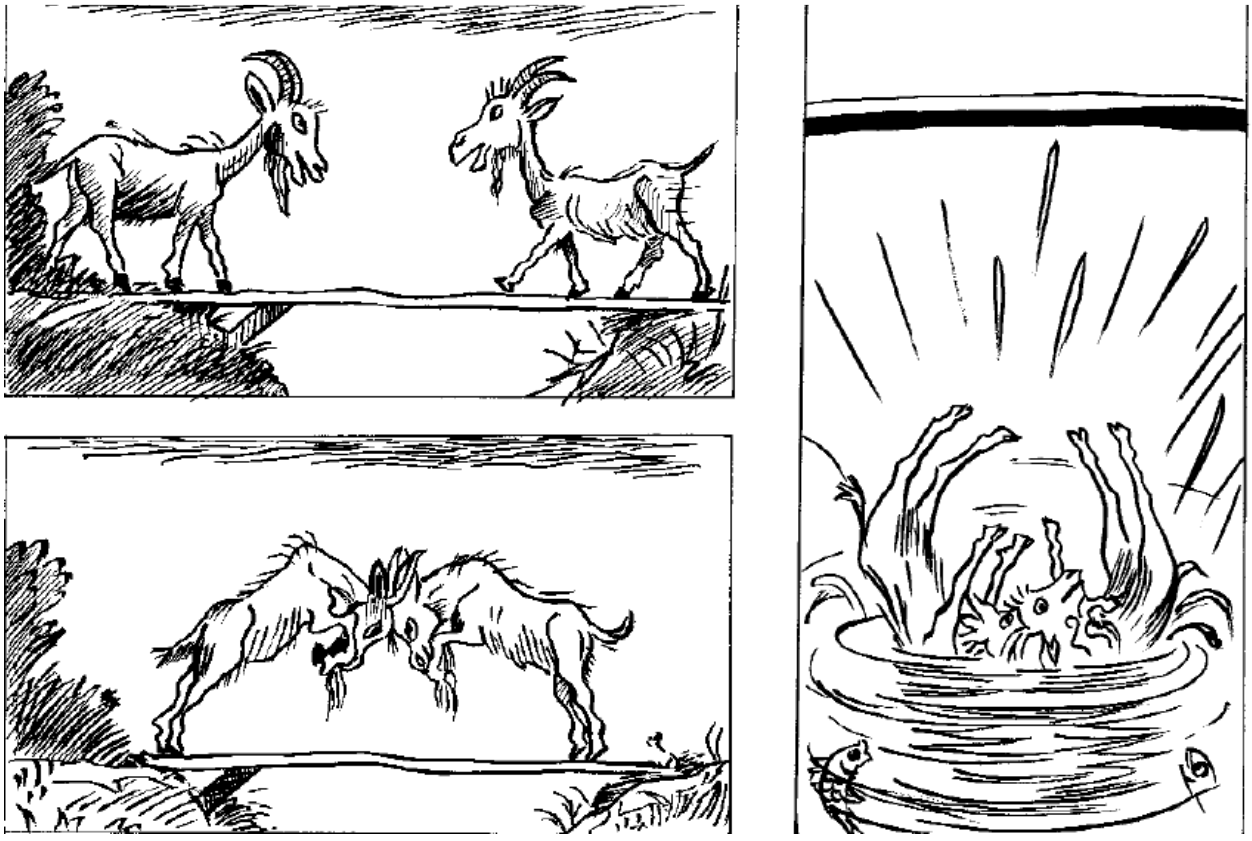
APPENDIX A

CHILDREN'S STORY

Questionnaire Code:…….

1. **Write a short story from the picture sequences below**
2. **Please begin your story with the Phrase: "Once Upon a Time…"**

TWO FOOLISH GOATS



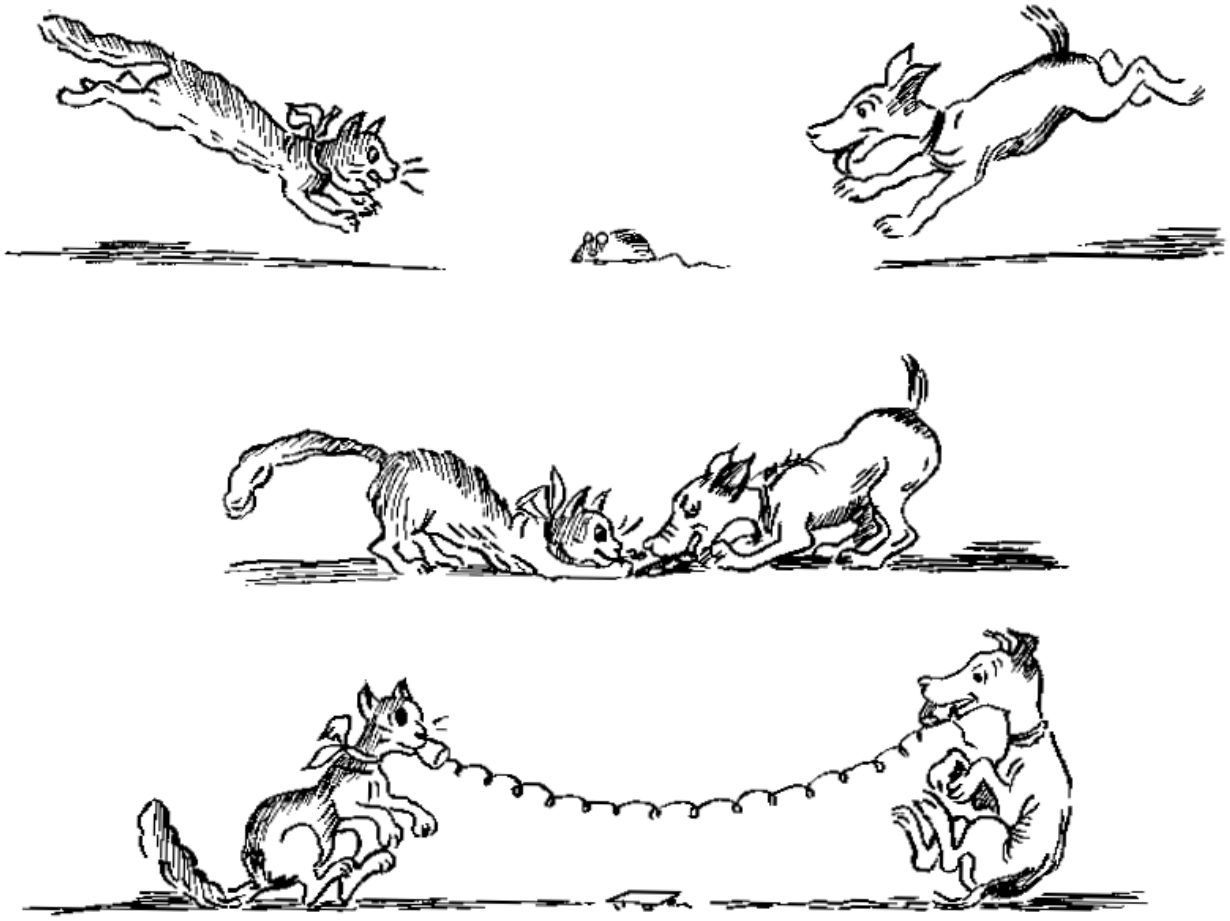
From Radlov (1960) Picture stories, Raduga Publishers

APPENDIX B

TEENAGER'S STORY

Questionnaire Code: …….

1. **Write a short story from the picture sequences below.**
2. **Provide an appropriate title to your short story.**
3. **Please begin your story with the phrase: "Once Upon a Time…"**

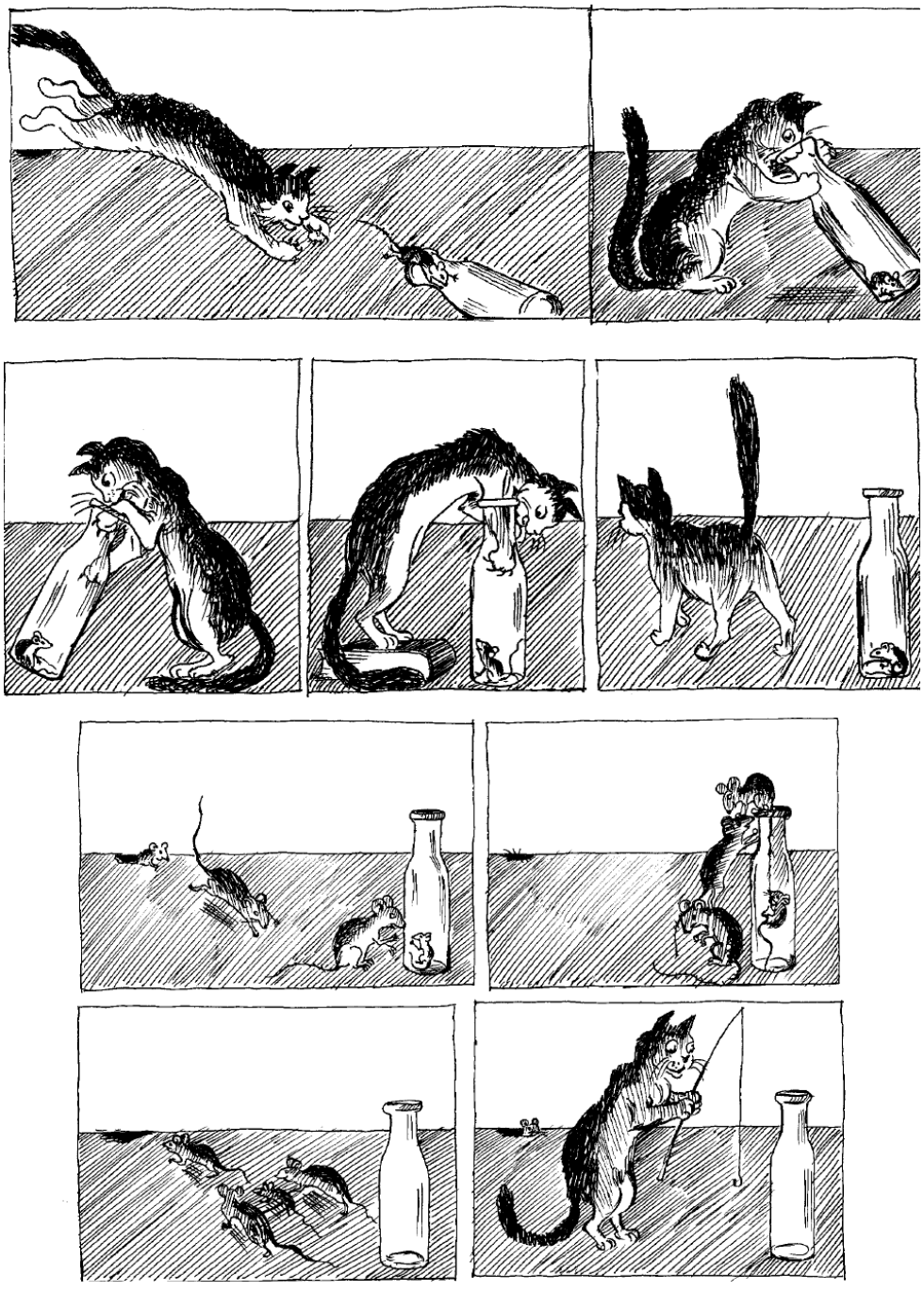


From Radlov (1960) Picture stories, Raduga Publishers

APPENDIC C

SHORT STORY WRITING (Adults' Story)

1. **Write a short story from the picture sequences below.**
2. **Provide an appropriate title to your short story**
3. **Please begin your story with the phrase: "Once Upon a Time…"**



APPENDIX D

CONSENT FORM

I, _____, agree to participate in a research study titled "ACQUISITION OF TENSE ASPECT MORPHOLOGY AMONG IBIBIO ESL LEARNERS" conducted by Willie U Willie Investigator from the Department of Linguistics at the University of Georgia (+ 1 706-542-5099/ + 1 678-600-6013) under the direction of Dr. Lioba Moshi, Department of Comparative Literature, University of Georgia (+ 1 706-542-2140). I understand that my participation is voluntary. I can refuse to participate or stop taking part at anytime without giving any reason, and without penalty or loss of benefits to which I am otherwise entitled. I can ask to have all of the information about me returned to me, removed from the research records, or destroyed.

The reason for this study is to test Second Language Development of tense-aspect among second language learners and to identify the processes and strategies that learners use to learn languages.

If I volunteer to take part in this study, I will be asked to participate in the following tasks:

1) Answer questions about my English language learning process that will take about 10 minutes
2) I will be asked to complete a cloze test which involves completing a passage written in English by supplying words that have been deleted for 10 minutes.
3) I will write a short story from a picture sequence that the researcher will provide for 30 minutes.
4) If I am willing, I will provide the researcher with copies of my writing
5) My information will be kept for further studies

No risk is expected since I am only providing information with regards to my knowledge and development of English as a second language. Rather I stand to benefit from my participation as I will be exposed to more language learning material and more positive evidence as I interact with the researcher/s during the study.

No individually-identifiable information about me, or provided by me during the research, will be shared with others. I will be assigned an identifying number and this number will be used on all of the questionnaires I fill out.

The investigator will answer any further questions about the research, now or during the course of the project.

I understand that I am agreeing by my signature on this form to take part in this research project and understand that I will receive a signed copy of this consent form for my records.

Willie U Willie Telephone: + 1 678-600-6013 Email: willie70@uga.edu	Signature	Date
Name of Participant	Signature	Date

Please sign both copies, keep one and return one to the researcher.

Additional questions or problems regarding your rights as a research participant should be addressed to The Chairperson, Institutional Review Board, University of Georgia, 612 Boyd Graduate Studies Research Center, Athens, Georgia 30602-7411; USA. Telephone (+ 1 706) 542-3199; E-Mail Address IRB@uga.edu.

APPENDIX E

PERENTAL-PERMISSION FORM

I agree to allow my child, _____, to take part in a research study titled, "ACQUISITION OF TENSE-ASPECT MORPHOLOGY AMONG IBIBIO ESL LEARNERS" conducted by Willie U. Willie from the Department of Linguistics at the University of Georgia (+ 1 705-542-5099/+ 1 678-600-6013) under the direction of Dr Lioba Moshi, Department of Comparative Literature, University of Georgia (+ 1 706-542-2140). I do not have to allow my child to be in this study if I do not want to. My child can refuse to participate or stop taking part at any time without giving any reason, and without penalty or loss of benefits to which she/he is otherwise entitled. I can ask to have the information related to my child returned to me, removed from the research records, or destroyed.

- The reason for the study is to find out the development of English tense-aspect morphology among children whose first language is not English.

- Children who will take part will be able to know their strengths and weakness as they learn English. The researcher also hopes to learn something that may help other children learn English better in the future.

- If I allow my child to take part, my child will be asked to write a short narrative, complete a cloze test (which involves completing a passage written in English by supplying words that have been deleted) and complete a questionnaire while the researcher watches. The researcher will ask my child to do these activities for 1 hour each in about two days. These activities will take place during free study time and will not interfere with other English lessons. If I do not want my child to take part then she/he will be allowed to study as usual.

- The research is not expected to cause any harm or discomfort. My child can quit at any time. My child's grade will not be affected if my child decides not to participate or to stop taking part.

- Any individually-identifiable information collected about my child will be held confidential unless otherwise required by law. My child's identity will be coded, and all data will be kept in a secured location.

- The researcher will answer any questions about the research, now or during the course of the project, and can be reached by telephone at: + 1 678-600-6013. I may also contact the professor supervising the research, Dr. Lioba Moshi, Department of Comparative Literature, UGA, at + 1 706-542-2140.
- I understand the study procedures described above. My questions have been answered to my satisfaction, and I agree to allow my child to take part in this study. I have been given a copy of this form to keep.

_____ _____ _____

Willie U. Willie Signature Date

Telephone: _+ 1 678-600-6013

Email: willie70@uga.edu

_____ _____ _____

Name of Parent or Guardian **Signature** **Date**

Please sign both copies, keep one and return one to the researcher.

Additional questions or problems regarding your child's rights as a research participant should be addressed to The Chairperson, Institutional Review Board, University of Georgia, 612 Boyd Graduate Studies Research Center, Athens, Georgia 30602-7411; USA. Telephone (+ 1 706) 542-3199; E-Mail Address IRB@uga.edu.

APPENDIX F

MINOR ASSENT FOEM

Dear Participant,

You are invited to participate in my research project titled, "ACQUISITION OF TENSE-ASPECT MORPHOLOGY AMONG IBIBIO ESL LEARNERS". Through this project I am learning about how boys and girls learn to mark tense and aspect in a second language.

If you decide to be part of this, you will allow me to work with you on your reading and writing. You will talk to me about your reading and writing. You will allow me to watch you and take notes while you are reading, writing or playing. Your participation in this project will not affect your grades in school. I will not use your name on any papers that I write about this project. However, because of your participation you may improve your ability to read and write in English. I hope to learn something about reading and writing that will help other children in the future.

If you want to stop participating in this project, you are free to do so at any time. You can also choose not to answer questions that you don't want to answer.

If you have any questions or concerns you can always ask me or call my teacher, Dr. Lioba Moshi at the following number: 706 542 2140.

Sincerely,

(Willie U. Willie)

Department of Linguistics

University of Georgia

Phone: 678-600-6013

Email: willie70@uga.edu

I understand the project described above. My questions have been answered and I agree to participate in this project. I have received a copy of this form.

_____

Signature of the Participant/Date

Please sign both copies, keep one and return one to the researcher.

Additional questions or problems regarding your rights as a research participant should be addressed to The Chairperson, Institutional Review Board, University of Georgia, 612 Boyd Graduate Studies Research Center, Athens, Georgia 30602-7411; Telephone (706) 542-3199; E-Mail Address.

APPENDIX G

BIODATA FORM

Questionnaire Code……..

Research Title: "English Second language Acquisition among Ibibio ESL Learners"

The purpose of this questionnaire is to collect a brief history of the participants on their learning of English as a second and to assign a code for all the data collected from an individual.

[A] BIODATA

i). Age……..

ii). Gender…….

iii). First Language……

iv). Other Languages spoken…….

[B] LANGUAGE DATA

i). How long have you been taught in English……

ii). Do you use English at home? ……

iii). If your answer to (ii) is yes please rate how often you use English at home on a scale from 1 to 10 with 10 meaning that you use English at home 100% of the time and 9 meaning 90% of the time and so on. **Circle** as appropriate. (1) (2) (3) (4) (5) (6) (7) (8) (9) (10).

APPENDIX H

SAMPLE OF CHILDREN STORIES

PARTICIPANT'S: CODE GIN2 (PRIMARY 4 STUDENT)

Once upon a time there was two goat the both of them was passing in the brige as the where going one did not want to wet for the order one to pass because the want to cross the brige so both of the start to faith as the result of that the both fall into the water.

CODE: GIN3 (PRIMARY 4 STUDENT)

"Once upon a time" they was two goats they two goats were passing along a breach and the breach was too small for two of them to pas the first gaot was passing by the right and the second goat was passing by the left. They two of them stated to flight and tow of them fall inside the deed water. And the two goat were foolish goats

CODE: G1N7 (PRIMARY 4 STUDENT)

Once upon a time they was two goat who where so foolish, they where passing are long a bridge so they where fighting for the person that will pass the bridge first so they where fighting and fighting in the small bridge they fight till they fell down from the bridge.

CODE: G1N8 (PRIMARY 4 STUDENT)

Once upon a tme the was two goat who was so foolish where the were passing on the bridge so the where the were passing the frist person to pas frist the start to fight on the bridge the fell into the water.

CODE: G1N9 (PRIMARY 4 STUDENT

Once upon a time the was a two goat the was in the brighg and one of them one that one to past and the start to fight when the was fighting and the fail down on the river and that is the end of my story.

APPENDIX I

SAMPLE CHILDREN STORIES

PARTICIPANT'S CODE: G2N10 (PRIMARY 6 STUDENT).

Once upon a time, two goats were trying to cross a bridge which was very narrow, the bridge could only allow one goat to cross at a time because of their foolishness, both of them wanted to cross together then one goat said that the other should allow him to pass since he was older the other goats said that he was stronger than the other goat so he should let him pass. After much quarrels on who to cross first the older goat got on who to cross first the older goat got angry and started to fight on the bridge suddenly both of them fell into the river since none of them could swim, they all drowned because of their foolishness.

CODE: G2N19 (PRIMARY 6 STUDENT)

Once upon a time the were two foolish goats one came from the right of a narrow brige and another from the left of the brige. The were so foolish that they could not see that brge is was narrow for the two of them to pass at the same time suddenly the fought on the narrow brige the struggled at the time and he fell into the river.

CODE: G2N20 (PRIMARY 6 STUDENT)

"Once upon a time" There were two foolish that they could not see that the brige is too narrow for the two of them to pass at the same time. Suddenly the fought on the narrow brige the struggled and fell into the brige together and faces were turn up side down.

APPENDIX J

SAMPLE OF TEENAGERS STORY

PARTICIPANT'S CODE: G3N6 (JSS 2 STUDENT; 8TH GRADE)

The dog and the cat

Once upon a time, as we already know that cat and dog are enemies of rat. one day cat and dog saw a rat and the ran to eat up the rat. the rat was not a real, it was a toy rat made of rubber when the two animal got the place where the rat was they notice that it wasn't a real rat, when each of them pick up a piece of the rubber the take the robe that was used in making or mulding the rat toy.

CODE: G3N11 (JSS 2 STUDENT; 8TH GRADE)

THE TITLE OF THE STORY IS DOG AND CAT

once upon the time the live two animals they were running, another one name a dog and a dog was pursuing a cat, and the cat was not a real cat so as dog was porsuing him, he catched a rope from the grand and they were fighting with the rope, struckly and dog wanted to coplect the rope by it self and the cat is try too to collect that rope from him and the title of my story is the dog and cat.

CODE: G3N17 (JSS 2 STUDENT; 8TH GRADE)

THE DOG AND THE CAT

once upon a time there was a cat and a dog and a dog there were friend. one day they saw a toy rat on the way and there was hungry so they decided to caught the rat and eat. and when they caught the toy rat they discovered that the rat was not a real rat and they rope that they use and tied the rat tie their mouth as the was drewing the rope as if they was drewing a real rat. so that is the end of my story

APPENDIX K

SAMPLE OF TEENAGERS STORIES

PARTICIPANT'S CODE: G4N5 (SSS 2 STUDENT; 11TH GRADE)

NOTHING SEEMS AS IT IS

Once upon a time, there lived the cat and dog living in a separate environment. So on a suspected day, they both search for food in opposite direction's and they finally saw the food and the fought for it atleast share and they became friend. So going along they lived happily. In the night the dog will be the one protecting and the day the cat will be. So on one special day they went out in search for food and the dog gave a suggestion that they should enter into different direction and they scattered in search of food. And all of a sudden, the cat saw a mouse saying it should rush for it and eat alone, the dog appeared and ran for the mouse both landed at the same time. Not knowing that the mouse wasn't a live one, but only a toy which was been by string. Oh what a pity.

CODE: G4N7 (SSS 2 STUDENT; 11TH GRADE)

Once upon a time, there lives two great enemy who lived together in their house. The master rate was very disappointed by the two animal because of the rate of which they feed every day without catching a single rat by the end of the day. One day the master decided that the animal have to live for the other to stay, so he designed a plan. Since the two animal were very wise so he placed a creative image of a rate closer to the television stand and placed palm oil on the ground. He then decided to inform the animal about his plan of sending one of them away, so he told them about the rate that any of them that would be able to catch a rat for him will stay. So the two animal went in search of the rat. At a time the two animal saw a rat and went after it,

they both discover the oil and jump over it suddenly they both catch the rat in order to prove the fastest they tried o draw the rat unfortunity it was and artificial rat with rope between them.

CODE: G4N20 (SSS 2 STUDENT; 11TH GRADE)

THE MAGIC RAT

Once upon a time, in the animal kingdom, there was a cat and a dog. One day the cat and the dog saw a rat, not knowing that the rat was not a real rat, they all ran to catch the rat, unfortunate to them they did not catch the rat so they decieded to rest under a tree. One day the cat and dog started looking for the rat and the saw the rat when the wanted to catch the rat. The rat became a toy, they were very sad. Secondly they saw another rat, they decieded to pursued the rat, badly to them, the rat turn to a rope. The dog said to the cat, this is a magic rat.

CODE: G4N12 (SSS 2 STUDENT; 11TH GRADE)

THE CAT, DOG AND THE TOY RAT

Once upon a time in the village of okokoro, there live a man and his family who was very wealthy. The man bought a toy rat for his children when he traveled abroad.

One day as they were patroling round the village with their father in his car, the toy rat fell from off the car and the children shouted for their father to stop so that they will pick there toy but the father refused and promised to buy another one for them next time he will travel to abroad.

On the other hand, there was a cat and a dog watching the rat as it falls out from the car and the dog also struggled to catch the rat but they were disappointed when they found out that it was a toy rat and they only thing they make out of it was a long rope. What a pity.

APPENDIX L

SAMPLE OF ADULTS' STORIES

PARTICIPANT'S CODE G5N1 (1ST YEAR UNIVERSITY STUDENT)

HELP IN TIMEOF DANGER

Once a time, a hungry cat who was in search for food sighted a rat and decided to pursue it so as have it for its breakfast. On hearing the steps of the hungry cat, the rat ran for its dear life and took advantage of a bottle which was its closet and most available shelter.

Fast, the rat, put its head into the bottle and soon its whole body was there. The cat thought of removing the rat and deep its hand into the bottle in the hope of removing the rat. But its hand could not get down to the bottom of the bottle where the rat was. The cat went away angrily in search of an alternative way of pulling up the rat.

Soon after the rat had left, came three other rats to the bottle and formed a ladder with one rat on top of other. The last rat on the bottle put its tail inside the bottle to aid the rat inside to be removed from the bottle.

The cat on returning found out that the rat had escaped though it came with a hooke to remove the rat. The cat was disappointed and it went away angrily.

CODE: G5N9 (1ST YEAR UNIVERSITY STUDENT)

HOW CATS AND RATS BECOME ENEMIES

Once upon a time, there lived two animals, the cat and rat. The two animals were friends. One day the cat conceived an idea on how they could make some money to settle their challenges.

Both of them accepted they idea and they engaged themselves in so many activities in order to raise money. Fortunately for the two friends, the deal worked out as planned and they fetched more money than they anticipated. After some months, they returned to their home with a handful of money.

When they returned home, the cat asked the rat what he would use his money for. The rat told the cat that he was interested in selling food stuffs like fish. But the cat bought a band set with his money.

The rat started his fish selling business. No sooner did the a rat start than his business began crumble the rat had eaten more fish than what he sold. With time, the business went dead completely.

One day the cat was away from his home. The rat sneeked into the cat's apartment and started playing his drum.

Unfortunately for the rat, the cat returned home and met him playing his drum. Out of furiousity, the cat jumped at the rat. But before the cat could lay hold on the rat he had started running and the cat chased him tenaciously. On seeing a bottle the rat squeezed itself into the bottle. After employing all possible means to remove the rat from the bottle (which of cause was to tile), the

cat kept the bottle erect so that the rat could not come out of the bottle as he went to get a fishing hook and linning.

But the rat' siblings were passing by they saw their brother inside a bottle. They decided a means where by they could use to get their brother removed from the bottle.

One stood on the head of the other. The last one inserted his tail into the bottle for their brother. The rat which was inside the bottle grabed his brother's tail and followed the tail out of the bottle.

After they had all gone, the cat came only to meet an empty bottle. gosh! the cat fumed in total disappointment. So, since then the cat is looking for the rat and whenever he finds him, he must be after him.

CODE: G5N3 (1ST YEAR UNIVERSITY STUDENT)

CAT AND THE RAT

Once a time, there was a cat chasing a rat and unfortunately the cat couldn't succeeded as the rat ran into an empty bottle. The cat tried to removing the rat in every meant couldn't succeed and left to find a rope to remove it fortunately for the rat he was accomplished by other rats who ran to assist him out. The rats climb untop of the other and rat. Finally they all ran away and cat return to find out that the rat has escape, the cat angrily left.

The story teaches us that it is good help each one another when one is being attacked.

APPENDIX M

SAMPLE OF ADULTS'S STORIES

PARTICIPANT'S CODE: G6N2 (3RD YEAR UNIVERSITY STUDENT)

RAT'S WISDOM

Once upon a time. A cat which is generally known to be a predator one day confronted a rat which is it prey. It pursued the rat. Tirelessly until the rat made it ways into a bottle that was placed horizontally on the floor. Since the opening of the bottle was the size of rat only, and could not size the cat. The cat devised every possible means to penetrate that bottle but, could not. It put his mouth, yet could not reach the cat from the bottom of the bottle. It even tried putting it hand yet to no avail. Now since the cat couldn't reach out to the rat by any means it tried putting the bottle erect so that the rat will not go out on its own. The cat went to get a rod that it will use to put inside the bottle to destabilize the rat to get out.

When the cat left other rats visited the site and devised a crafty method of rescuing their follow rat. They did that by forming a ladder within themselves and the last rat on the top of the ladder put it tail to make it easy for the one inside to hold and come out. They did that successfully and the prisoned rat was rescued when the cat the predator returned to the place. It met a empty bottle. I guess the cat was deeply disappointed.

CODE: G6N11 (3RD YEAR UNIVERSITY STUDENT)

CLEVER RATS

Once upon a time, in the house of Mrs Akpan a cat was bought to checkmate the activities of rats in the household since the rat were becoming unbearable the cat was black and notorious, it was called Bayo, an a rat ran into the sight of the cat and it got chased by the rat, the only escape route of the rat was a nearby bottle, on seeing the rat dash into the bottle the cat resorted to using a hook to bring the rats out of the bottle.

When the cat left to fetch the hook, three other rats came to the rescue of the "imprisoned rat" by forming a ladder patter for the embattle rat to get rescued. On completion of the rescue mission the rats dashed out of the environment and only for the cat to discover that the rat had escaped. The cat looked at the bottle with frustration.