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Two Steps Forward, One Step Back: A Computer-aided Error Analysis of Grammar Errors in EAP Writing

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Two Steps Forward, One Step Back:

A Computer-aided Error Analysis of Grammar Errors in EAP Writing

by

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Abstract

This study consists of a computer-aided error analysis of grammar errors in 70 university placement essays, scores on which resulted in students being either placed in EAP (English for Academic Purposes) Level 1, placed in EAP Level 2, or exempted from the EAP program. Essay scoring happened prior to the study, using the department process whereby each essay was scored by at least two raters using an analytic rubric. An error taxonomy of 16 categories based on Lane and Lange (1999) was used to code the essay data. Data was assembled into a corpus and tagged using the text analysis program UAM (Universidad Autónoma de Madrid) CorpusTool. Results were exported and analyzed with statistical tests. The results of the study validate the EAP placement process. Scores in the language use section of the rubric were highly correlated with total scores, and inter-rater reliability was also found. Errors rates were also found to correlate with language use score, suggesting that raters were responding to grammatical errors in making their assessments. Comparisons between the three placement groups revealed significant differences in error rates between Level 2 and Exempt. Based on the correlations, between-group comparisons, and overall frequency of errors, six error categories were chosen for closer analysis: sentence structure, articles, prepositions, singular/plural, subordinate clauses, and other. The findings suggest that local errors, though often given low priority in textbooks, do significantly impact rater assessment. Results also suggest that error rates do not necessarily decrease with advancing level—some error rates may increase. Though this finding was surprising, it might be attributed in part to the fact that some errors can be evidence of interlanguage development as new forms are acquired. The study concludes with suggestions for teaching and future research.

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Chapter I: Introduction

Background and Purpose of Study

My experience teaching Reading and Writing in the English for Academic Purposes (EAP) program at a university in the US Midwest led me to an interest in grammar evaluation and instruction. By participating in our department placement and evaluation processes I became interested in how instructors respond to grammar when evaluating writing. Our students are placed in EAP Reading and Writing courses based on an essay-writing exam, which is scored by instructors. I wondered if our ratings were consistent, and how accurately they reflected the grammatical proficiency demonstrated in the essays. As an EAP instructor I struggled with how to best teach grammar in the limited time available. Our students are generally very bright and motivated, with great ideas. Unfortunately, poor grammar detracts from the quality and clarity of their writing. To excel in an American university, EAP students need to develop the skill of writing with a minimum of grammatical errors. This research project grew out of two wishes: 1) to better understand how grammar errors impact writing assessment, and 2) to develop a process for identifying and prioritizing students' grammar gaps, which could help instructors reconcile student needs with the time constraints of our program.

Our department's written English Proficiency Test (EPT) is required of many incoming students for whom English is not a first language, to determine their English proficiency level before enrolling in classes. It consists of a persuasive essay prompt. Students have 50 minutes to respond to the prompt. Afterwards exams are group-graded by graduate student instructors in the EAP program using a modified version of the Jacobs, Zinkgraf, Wormuth, Hartfiel, and Hughey (1981) ESL Composition Profile. This analytic scale produces scores for content, organization, vocabulary, language use, and mechanics, which are combined for a total score. A rigorous

training, which includes calibration, is held at the beginning of the grading session. Then all essays are read and scored by at least two raters. Though the process is very systematic and professional, it is fast paced. There is no time to deliberate at length on decisions, and a certain level of intuitive response comes into play. As a rater myself, I couldn't help but wonder if I was truly responding to the rubric elements as I assigned scores, particularly those concerning grammar, and if I was being consistent. I also wondered if the team rating process would even out any discrepancies.

Once placed into EAP, students have one or two semesters to work on their academic English. Our EAP program combines academic reading and writing into a series of two courses, EAP Reading and Writing for Academic Purposes Level 1 and EAP Reading and Writing for Academic Purposes Level 2. Our goal is to give EAP students the tools they need to meet the intense reading/writing demands of their subsequent university courses. Many skills are involved in writing well. Thoughtful analysis, originality, and citation are all important in the US academic tradition. We work very hard to prepare students, many of whom come from educational systems with different priorities. Our practicum training and standardized syllabi prioritize introducing students to US essays, research papers, the Academic Word List, reading strategies, and APA citation style. With all that we need to cover, we don't have a lot of time for grammar instruction. The reading/writing textbooks we use contain some grammar exercises and appendices with grammar explanation, but we must budget teaching time.

There is no time in our courses to systematically cover a comprehensive range of grammar topics. Yet EAP students need to be aware of grammatical errors, which detract from the professionalism of their work. So, instructors must prioritize grammar topics they believe students most urgently need. Many EAP instructors are also graduate assistants assigned to teach as part of their graduate program. They are full of enthusiasm and creativity, but not always

equipped with knowledge of how to address students' grammar gaps. A systematic process for identifying and prioritizing weaknesses, possibly at the department level, could help instructors plan the grammar portion of their curriculum. They could use it to develop appropriate grammar syllabi, covering frequent errors common to the majority of students. To explore this possibility, I conducted an errors analysis of the placement essays from one semester.

Research Questions

Research Question 1-Which grammar errors strongly impact rater language use scores?

Research Question 2-What is the distribution of grammar errors present in EAP placement essays, overall and at different placement levels?

To accomplish my goal I employed computer-aided error analysis, an application of corpus analysis. Though often associated with large-scale professional projects, corpus analysis can also be used on a small scale to enrich classroom learning. Of particular interest to me, corpora of student work can be assembled and analyzed. In the literature review section I provide background on computer aided error analysis and how it can be used for assessing grammar needs in EAP programs such as ours.

This study is organized into five chapters. Chapter I has introduced the background and research questions of the study. Chapter II reviews existing literature on error analysis, computer aided error analysis, college-level grammar expectations, and the place of error analysis in grammar instruction. Chapter III explains the methodology of the study, including participants, materials, and procedure. Chapter IV presents results and data analysis. Chapter V contains my interpretations and responses to the research questions based on the results. Chapter VI presents suggestions for further research and pedagogical implications. The references and appendices provide additional information for readers interested in exploring further.

Chapter II: Literature Review

What: What is an Error?

Ellis and Barkhuizen (2005) and James (1998) talk about the complications of defining an error. Issues arise such as whether to use grammaticality or acceptability as the criterion, and which variety of a language to choose as the standard. Grammaticality is codified in references such as *A Comprehensive Grammar of the English language* (Crystal & Quirk, 2012), while acceptability as defined by Ellis and Barkhuizen is more subjective and based on the context. Issues of preferred style fall under acceptability. In practice the two standards are often mingled. Lennon (1991) suggested a definition of error as "[a] linguistic form or combination of forms which, in the same context and under similar conditions of production, would, in all likelihood, not be produced by the speakers' native speaker counterparts" (p. 182). Similarly, Ferris and Hedgcock (2005) suggest the working definition: "[e]rrors consist of morphological, syntactic, and lexical deviations from the grammatical rules of a language that violate the intuitions of NSs" (p. 264). For a study of university level EAP learners, a practical compromise is to take academic English as the variety, and to think in terms of whether a native speaker student would produce the same language. A researcher must also decide whether to consider errors such as sentence fragments and spelling that are common among both ESL and native speaking students.

The word *error* carries a negative connotation, implying adverse judgment, failure, and embarrassment. Second language acquisition researchers offer a different view. According to their research second language learners use an *interlanguage*—a rule-based transitional language that approximates the target language. This term was coined by linguist Larry Selinker in 1972 (Lightbown & Spada, 2013). Sometimes learners appear to regress when they are in fact progressing, as with past tense verbs. Learners may move from rote repetition of a correct but

irregular form, to incorrect use as they acquire and over-generalize a rule, extending its application to irregular forms. At a yet later stage of development, the learner may acquire exceptions to the rule. A learner may learn to say *went* based on initial observation and conceptualization, then switch to *goed* as the past tense *ed* rule is learned, then finally learn that the correct form is the irregular *went*. Such errors are evidence of progress in constructing a target-like interlanguage grammar. Interlanguage is a dynamic system, and many errors are developmental. In fact, second language acquisition researchers are fascinated by errors and the processes of acquisition they may reveal. ESL educators such as Sharon Myers (2003, p. 52) also reject "…the understanding of errors as something to be eliminated rather than as artifacts of processing (and often of developmental progress)".

The ideas about error and interlanguage emerged as an alternative to a previous theory, the Contrastive Analysis Hypothesis (Lightbown & Spada, 2013). Contrastive Analysis sought to compare the structures of learners' first languages to a target language, to predict errors that they might make. The assumption, rooted in behaviorism, was that learning occurred through imitation and habit formation. Differences in the language structures were thought to be the source of errors. Learners would automatically transfer rules they had learned from their first language to the second language. Unfortunately, it was discovered that many predicted errors were not produced, and that some errors produced could not be explained by comparing language systems. Additionally, errors were not bidirectional. In other words, second language learners of two given language groups did not necessarily make the same sorts of errors. For example, Contrastive Analysis would predict that French speaking learners of English might mistakenly say "The dog it eats," while English speaking learners of French might mistakenly

say “Le chien mange le,” due to differences in rules for direct object pronoun placement. However, in reality, this misplacement error is only typical of English speaking learners.

Researchers who turned their attention to interlanguage focused on how learners process second language data, and use their developing knowledge to create a rule-governed system. They did not discount cross-linguistic influence, but did not view first language (L1) habits as the only source of error. They were influenced by research on first language acquisition, which revealed that children had a rule-governed child-language that adapted over time to become an adult language system. Errors could provide evidence of learners’ current understanding of second or additional language (L2) patterns.

Linguist Pit Corder (1974), who was influential in studying learner errors in the 1960s and 1970s, differentiated between *errors* and *mistakes*. He claimed errors were evidence of an interlanguage grammar differing systematically from the target language grammar. Mistakes were rather the results of carelessness. This distinction parallels the linguistic distinction between competence and performance. Learners may have knowledge that is not demonstrated in their production, for a variety of reasons. There may also be a middle ground between mistakes and errors: some errors may represent forms that are only partially mastered. In a stressful situation a student might feel overwhelmed and revert back to a previously learned form. As students progress, alternation between correct and incorrect forms would diminish. Corder was interested primarily in errors, as a window into the learning process. Bates, Lane, and Lange (1993) concur that teachers should focus on errors. They suggest that mistakes are random slips, rather than the result of ignorance or of faulty rules established in the interlanguage system. They can generally be easily corrected by the student if pointed out. Ellis and Barkuizen (2005) argue that both errors and mistakes are important. If a form is not fully mastered, this is important information.

They also argue that differentiating between errors and mistakes is quite difficult in reality. Competence is a psychological construct. In practice it is impossible to directly observe a student's thought process to make a distinction. For teachers and learners, they suggest the distinction is largely irrelevant. In the current study, no distinction is made between mistake and errors. All deviations from target language norms are classified as errors.

How: **Error Analysis**

Errors have been studied ever since there have been students and teachers of second and additional languages (Ellis & Barkhuizen, 2005; James, 1998). The area earned its own acronym –EA– in the 1960s and 70s. Pit Corder and other linguists, reacting to the limitations of language acquisition theories based in behaviorism, celebrated learner errors as evidence of interlanguage development rather than deviations to be avoided.

Bates et al. (1993) stress that "errors are positive" (p. 11), and that instructors should adopt this attitude with their students. Systematic errors demonstrate that a student is developing a linguistic system, extracting order out of chaotic input. As they progress they will continue to form and test hypotheses about language, guided by feedback and error analysis. Readers/listeners provide needed feedback that helps the student to adjust hypotheses. For language learners error analysis refers to a conscious, systematic effort to identify, study, correct, and self-monitor for errors. Figure 1 illustrates this sequence. Error analysis should be regarded as an empowering discovery process, not a punitive exercise.

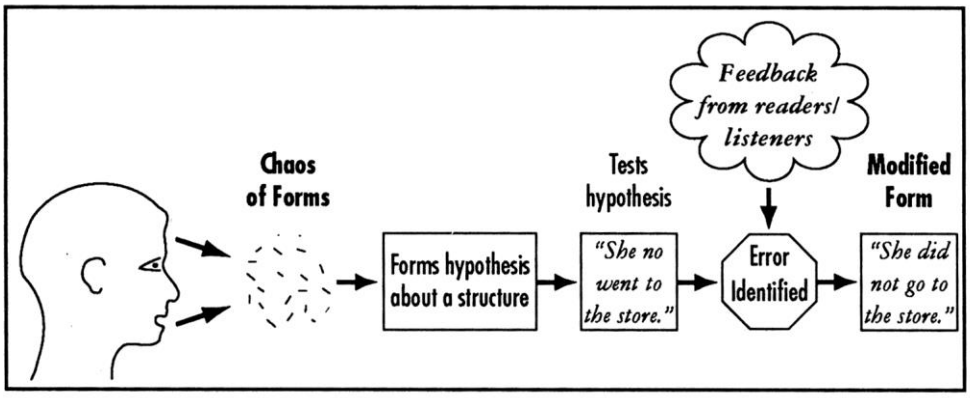

Figure 1. The trial and error process of hypothesis formation, with feedback. Reproduced from Bates et al., 1993, p. 9.

Ellis and Barkhuizen (2005) list five possible steps involved in EA for research, derived from Corder (1974). The first step is to collect a sample of learner language. The second step is to identify errors. Third the errors are described. This involves labeling the errors in a systematic way, and counting the number of errors in each group. The researcher must develop or borrow categories for coding the identified errors. The fourth step is explanation, a rich area for second language acquisition researchers. Here the attempt is made to understand the source of error. Perhaps the error is developmental, part of a natural stage in acquiring the second language system that many learners make regardless of their L1. Perhaps the learner is transferring a structure from their L1. Or, perhaps they are tired or distracted and making an error they don't make in other contexts. Specifying the source of an error can be very difficult and ambiguous, and Ellis and Barkhuizen suggest many errors likely have multiple sources. The fifth stage of EA is error evaluation. Here the relative seriousness of errors is gauged by one or more judges. A different criterion could be chosen, such as intelligibility or irritability. The results could be used for purposes such as planning curriculum. Teachers have a practical need to consider error gravity as they decide which errors to cover in their teaching.

Steps 1-3 are necessary for an EA study. In step 3, EA researchers use error taxonomies to classify their findings. James (1998) suggests that a useful error taxonomy must meet two criteria. It must be "highly-elaborated," and "user friendly" (p. 95). In other words, it must be possible to describe errors with sufficient detail, but the categories must be readily comprehensible to a teacher with basic background in applied linguistics. Highly theoretical categories, for example, might be too abstract for teaching purposes. Categories should also be as objective as possible. Some EA taxonomies include designations for the sources of errors—developmental errors, interlingual errors caused by influence of a first language, etc. These taxonomies mix the third and fourth stages of EA. Because source judgments can be subjective, James and other scholars recommend focusing on observable features only in the description phase (James, 1998; Dulay, Burt, & Krashen, 1982; Dagneaux, Denness, & Granger, 1998).

Drawing on previous work by Dulay et al. (1982), James (1998) recommends two kinds of taxonomy: 1) linguistic taxonomies, and 2) surface structure taxonomies. Linguistic taxonomies label errors according to the linguistic domain (phonology, lexis, grammar, etc.) and unit affected (for grammar: auxiliary system, passives, etc.). For grammar, the labels are much like those appearing in grammar textbooks or English grammar reference books, and should be very familiar to English teachers.

A surface structure taxonomy identifies how a learner's statement deviates from a native speaker equivalent. James (1998) again draws on Dulay et. al. (1982), slightly modifying their proposed system to construct a taxonomy consisting of five surface structure categories: omission (*He like chocolate*), overinclusion (*He doesn't knows me*), misselection (*I seen her*, when appropriate word would be *saw*), misordering (*He every time is late*) and blends—a category where the learner confuses target options and produces a mixture (*according to Erica's*

opinion). James suggests that an ideal taxonomy would combine linguistic and surface structure description, as they are both very useful. For example, telling a student they make too many overinclusion errors would not be very helpful. The linguistic category affected is also important.

Identifying and describing errors involves mentally comparing a text with what a native speaker equivalent would be. An unavoidable issue with error analysis is that reconstructing text with errors is not always clear-cut. Ellis and Barkhuizen (2005) give the example of the sentence "The policeman was in this corner whistle but it was too late." The tense error is relatively straightforward. The sentence structure error is more complex. This sentence could be reconstructed and classified in at least three ways: 1) Missing relative pronoun: "The policeman who was in this corner whistled but it was too late", 2) missing coordinating conjunction: "The policeman was in this corner and whistled but it was too late" and 3) superfluous copula: "The policeman in this corner whistled but it was too late." If the student were present it might be possible to go over possibilities with him/her, but even then, according to Ellis and Barkhuizen, the student might not know. Errors are messy. Ellis and Barkhuizen do not offer a solution for choosing a linguistic category in these cases, beyond identifying them in some way as being ambiguous.

Other authors also comment on the decision-making required in EA. According to Santos (1988) "It should be noted that at times the classifying of errors becomes a matter of individual interpretation and judgment" (p. 74). Nicholls (2003) gives an example in her discussion of the error taxonomy developed for the CLC, Cambridge Learner Corpus. In the case of "He said me that…" a researcher could indicate a wrong verb, and substitute said with told—"he told me that." Or, the error could be coded as a missing preposition to make the verb work: "He said to me that…" The CLC guidelines favor keeping as close as possible to a student's original text. In this

case, changing the argument structure of a verb can be viewed as less invasive than changing the verb. Form a pedagogic perspective, Nicholls explains it is more useful to teach a student to use their verbs correctly rather than avoid certain verbs. Additionally, in cases where intended meaning is unclear, the CLC taxonomy has a 'complex error' catch-all category for incoherent stretches. Nicholls says going to great lengths to guess at meaning in such cases would not yield useful information for teaching and learning.

English teachers often come up with informal error classification systems, though they may not be fully elaborated. For example *run-ons* and *fragments*, perhaps abbreviated to the instructor's preference, are common marks for these two kinds of errors on student papers. An example of a systematic error taxonomy developed for pedagogical purposes is that described by Janet Lane and Ellen Lange (1999) in their book *Writing Clearly: An Editing Guide*. This composition textbook was designed specifically with advanced level ESL students in mind. It is divided into 15 chapters, for 15 error types typical of ESL student writing. The 15 types are divided into global, or more serious, and local, or less serious errors. This distinction derives from Marina Burt and Carol Kiparsky's (1972) *The Gooficon: A Repair Manual for English*, a comprehensive text that provides a much more detailed ESL error classification scheme. Global errors, such as sentence structure, are generally errors that impede understanding. Local errors, such as subject verb agreement, may be irritating but are less serious in that they do not interfere with understanding. They are often confined to a word or small chunk of a sentence, while global errors may affect larger sections of text. Lane and Lange acknowledge that the distinction is not perfect, and that there are cases where a typically local error has global impact, and vice versa. Nevertheless they use this model as a rough way of organizing the potentially overwhelming task of addressing errors. They provide chapters on the nine global categories before moving on to the

six local categories. They explain the error types, then provide exercises for students to practice identifying them. There are also writing assignments designed to elicit grammar constructions. The goal of the book is to promote independence, encouraging students to recognize and correct their own errors. It is not intended as a grammar reference. As Lane and Lange state in the preface, "The focus of *Writing Clearly: An Editing Guide,* Second Edition, is error analysis rather than a comprehensive study of grammar" (viii). They stress the importance of providing advanced students with both feedback on their errors, and self-editing strategies.

The Lane and Lange system is primarily a linguistic taxonomy, organized by topics that would appear in any grammar reference. There are some elements of surface structure as well, where appropriate. For a category such as articles it makes sense to layer in the four surface structure categories of omission, overinclusion, misselection, and misordering. These options are included by Lane and Lange, though not with those same labels. For other categories it wouldn't make sense to include all the surface structure options. For example verb tense errors are errors of misselection, or using the wrong tense. Word order is essentially a whole category dedicated to various kinds of misordering errors. I believe the Lane and Lange taxonomy would meet with James' approval because it does not attempt to classify errors by developmental level or L1. Most importantly, it balances comprehensiveness with functionality for teachers.

Computer-aided error analysis. Contemporary researchers have developed computer-aided error analysis, CEA. This approach integrates EA research questions with computer corpus analysis methodology (Dagneaux et al., 1998). Dagneaux et al. celebrate the development of CEA. They acknowledge that researchers in the 1970s conducted important work on EA. Unfortunately, many of these researchers were not rigorous about documenting the conditions of language production. They did not fully describe characteristics such as context –EFL (English

as a Foreign Language) or ESL, genre, length, and constraints that were present. Computer Learner Corpora, on the other hand, are as a matter of course labeled carefully with such information. Additionally, many of the original EA researchers did not use standard error categories (Dagneaux et al., 1998, p. 164). Many researchers were focused on understanding the logic of learners' interlanguage, and investigating the source of their errors. Echoing James (1998), Dagneaux et al. lament the fact that many studies mixed the description stage with explanation, lumping together certain errors in various L1 interference categories. Such fuzzy and subjective categories are not useful to other researchers. Inadequately documented or illogical error typologies make it difficult to interpret or replicate studies. Dagneaux et al. conclude that EA is a very important research area, but that when it first originated, researchers did not have the tools that became available at later evolutionary stages of development in the field.

Corpus analysis consists of discovering significant linguistic phenomena in a corpus. The possibilities for corpus analysis have exploded in recent decades, thanks to advances in desktop computing technology. Desktop computers are helpful allies because they are readily available and can store and process vast quantities of data, counting and sorting very quickly. Though many corpora consist of native speaker production, in recent years there has been growing interest in compiling computer learner corpora. Granger (2002) explains that since the late 1980s, second language researchers have realized that though it is very useful to have a detailed knowledge of target language, it is also important to gain a deeper understanding of what second language learners are able to produce--their interlanguage. As part of this venture, studying learner errors can help educators and researchers understand learner needs. CEA combines EA methodology with computing power.

Dagneaux et al. stress the value of consistent well-documented error taxonomies, so studies can be compared or replicated. Such taxonomies should be based purely on description, with no regard to error source, as these determinations are too subjective. Many taxonomies are associated with large-scale corpora and the software developed to tag (please see Appendix C for explanations of tagging and other corpus analysis methods) them (Díaz-Negrillo & Fernández-Domínguez, 2006). Two examples of influential leaner error taxonomies are those developed for the ICLE and CLC projects. The International Corpus of Learner English (ICLE) and the Cambridge Learner Corpus (CLC) are specialized corpora of academic English. The International Corpus of Learner English, version 2 (ICLEv2) consists of 3.7 million words of EFL academic writing by students from 16 native language backgrounds (Granger, Dagneaux, Meunier, & Paquot, 2009). It was developed at the Université Catholique de Louvain in Belgium. The Cambridge Learner Corpus is the creation of the Cambridge University Press and Cambridge English Language Assessment. As of 2003, The CLC consisted of 16 million words of English examination scripts written by learners with 86 different first languages (Nicholls, 2003).

The ICLE and CLC taxonomies were developed with pragmatic goals in mind: to generate data to answer the sorts of questions posed by exam and materials developers. Which errors are most common overall and at different proficiency levels? Which errors are most problematic for specific L1s? In addition to such large-scale projects, smaller classroom or institution based studies have value for determining and meeting local needs. Ferris (2002) provides a list of typical ESL writing errors (p. 53), but cautions that such lists can only serve as a rough starting point. Each group of students is unique, with different first language, education system background, talents, and other variables. She recommends that ESL writing teachers

conduct their own error analysis research at the start of a term (2003, pp. 148-149), to assist in planning the syllabus. Ellis and Barkhuizen (2005) suggest researchers start with the categories found in a grammar reference, and adjust them for the errors actually found in the data. The process should be "data driven" (p. 60). Because the type of analysis that can be done is affected by the taxonomy used, it is important for researchers and teachers to select or develop one that meets their research needs.

Computer tools are available for small-scale CEA projects, such as Microsoft Excel, Microsoft Word, and the UAM (Universidad Autónoma de Madrid) CorpusTool. UAM CorpusTool is a versatile tagging software discussed further in the Methodology section. A resource such as Lane and Lange (1999) can be used as a guide for creating an error scheme in the program appropriate for the given context and research question.

It is worth emphasizing here that human analysis is a key part CEA. Researchers are very concerned about relying too much on automated analysis. Timmis asserts that qualitative analysis goes hand in hand with quantitative analysis (2015, p. 6). Ferris (1993) states that some language features must be evaluated by a person. In the case of error analysis, a human rater is generally required to identify and classify errors. Many errors are idiosyncratic and not easily converted to a computer algorithm. Grant and Ginther (2000) analyzed how computerized tagging correlated with proficiency scores on the TWE (Test of Written English) that is part of the computer-based TOEFL exam. The researchers were interested in the limitations of computer tagging. The software was adept at cataloging many relevant linguistic features, such as modals of different types. However, it could not judge appropriacy of use. Nor could it catch errors of omission. The researchers assert that at higher levels of language proficienty, this type of error is especially important. Grant and Ginther agree with Ferris, concluding that though computers can

handle some functions, human evaluation is imperative (pp. 140-143). These findings support the use of human raters for evaluation processes such as university EAP placement based on writing samples.

Why: Pedagogical Concerns

University level academic writing expectations. Writing with as few errors as possible is important for students' academic success. Bates et al. (1993) stress that university professors have high expectations for student writing, whether students are English learners or not. McGirt (as cited in Lane & lange, 1999, p. 15) concluded that English composition instructors are slightly more forgiving of errors in ESL student work, yet their tolerance is still quite low. Three errors per 100 words was the maximum found to be acceptable, versus one error per 100 words in a native speaker paper. Vann, Meyer, and Lorenz (1984) found that overall, professors rated typical ESL writer sentence-level errors as the most problematic, less "tolerable" than errors also typical of native speakers. They considered evaluations on a scale of 1 (intolerable in any academic situation) to 5 (tolerable in all academic situations) made by 319 faculty members from a range of disciplines. The professors read and rated 24 sentences extracted from ESL writing samples, each containing a common ESL writing error. Typical ESL errors included faulty word order (the least tolerable error) and it-deletion (the second-least tolerable error). Errors also typical of native speakers included spelling and comma splices (rated as the two most tolerable types). Article and preposition errors were also considered more tolerable. Interestingly, the researchers also found that professors in Physical and Mathematical Science and Engineering were least tolerant of errors overall.

In a subsequent study Vann, Lorenz, and Meyer (1991) created two essays with planted errors, to elicit professors' response to three of the error types from the first study: articles,

spelling, and verb form. They wondered if the isolated sentence format had caused professors to focus their attention artificially on errors. This time they asked faculty members to respond to a questionnaire with 11 questions and 11 accompanying 5-point rating scales. The questions asked about irritation, appropriacy, and other qualities as well as acceptability. In the Vann et al. (1984) and Vann et al. (1991) studies acceptability may have a slightly different meaning than that proposed by Ellis and Barkhuizen (2005); it is discussed as a synonym for *tolerable*. The questionnaire also asked that the participants evaluate the writer as being careless/careful and intelligent/unintelligent. They found the same order of acceptability hierarchy for the three error types as in the previous study—spelling (most acceptable), articles, verb form (least acceptable). However, the question about carefulness produced a different hierarchy. The difference shows that readers may have different hierarchies for judging errors against different criteria. A spelling error might be acceptable, but might lead the reader to regard the writer as careless. They found that professors in the physical and biological sciences were less tolerant than faculty in the humanities, education and social sciences. Professors in these fields were also more likely to judge the writers as being careless based on the errors.

Santos (1988) also found differences in professors' ratings based on the criterion specified. She asked 178 professors to read and evaluate two ESL essays chosen for following similar structure, having similar length, and both containing a preponderance of typical ESL errors. Professors found the errors to be comprehensible, and not too irritating, but not acceptable. Here "acceptable" was defined as conforming to target language norms. Again, physical sciences professors were harsher than humanities/social sciences professors in rating language use.

Roberts and Cimasko (2008) created a packet consisting of a writing sample and a cover letter. The letter asked professors to read the sample and assign a holistic score from 1-10, and

then identify and edit the five ‘most troublesome’ errors. The instructions explained that this could mean either something ‘irritating’ or an error obscuring meaning. The same intermediate ESL writing sample was used, but details provided on the cover sheet were modified so the evaluator would think the writer was either Chinese L1 or Spanish L1. Roberts and Cimasko randomly sent packets soliciting participation to 12 departments, half social science and half math/engineering. 71 professors responded.

Subsequent T-tests revealed that there was no significant difference in evaluation based on writer L1. Regarding evaluator characteristics, native versus non-native speaker status did not have a significant effect on scores. Nor did age. Gender did have an impact—female professors rated the essay higher. Academic department was also significant—in keeping with other studies, engineering/math professors were harsher. Only half the respondents limited themselves to 5 errors—many of the rest apparently could not limit themselves to 5 and made further corrections. Overall, of the half who followed instructions, errors affecting meaning were most often corrected. Verb errors and word choice errors were corrected the most. Article errors and cases of lexical omission (including both content and function words) were corrected least.

EAP students’ writing quality will continue to affect their academic career after they complete their English Composition requirement. Vann et al. (1984) conclude that though there is variation among disciplines and faculty members, certain errors are consistently more bothersome to raters than others, information which could be used to make pedagogical decisions. Their second study (Vann et al., 1991) suggests that looking at acceptability alone may be setting the bar too low. Though a paper is understandable, errors may lead faculty to form other negative opinions about a paper or a writer. Roberts and Cimasko recommend letting students know that

each professor and discipline will be a little different, and that writing skill will continue to be important even in non-humanities fields such as Math and Science.

Given the reality of the expectations of academic writing skills, it is very important for ESL composition instructors to address grammar errors in their courses. As Vann et al. (1991) say, "[t]his does not mean that ESL teachers should insist on error-free papers or encourage obsession with error avoidance. Rather, it suggests that responsibility in teaching writing extends to alerting students to the possible consequences of violating a written code in a culture which spends millions each year on error removal by correcting fluids, computer programs, and proofreaders" (p. 193).

Traditional pedagogy, sentence diagrams, and the grammar police. Unfortunately grammar instruction has acquired a negative reputation, conjuring up associations with inflexible old-fashioned teaching methods. Timmis (2015) states that grammar is a touchy subject, with its traditional prescriptive emphasis on right and wrong (p. 58). The process-oriented trend in English Composition pedagogy produced a backlash against correcting grammar and other editing tasks, which impacted EAP writing pedagogy as well (Ferris & Hedgcock, 2005; Reid, 1993; Moussu, 2013). The movement gained momentum through the 1970s and 1980s, and English Composition instructors were encouraged to prioritize creativity, exploration, and individual writing process. Harris and Silva (1993) point out that ESL students have not developed the intuition about language that native speakers have. Therefore writing teaching techniques appropriate for native speaking students, such as reading a paper out loud to notice errors, may not work. They can't be expected to recognize that something "sounds good." EAP students may need error correction and explicit grammar rules as their intuition develops.

Meunier (2002) also acknowledges the controversy surrounding grammar instruction. She relates how perhaps in reaction to rote, decontextualized drills and other old-school grammar teaching methods some language researchers have adopted a 'non-interface' position, first proposed by Stephen Krashen in 1981. According to this model there is no connection between language acquisition and grammar teaching (Ellis, 2014). Meunier asserts that the general research-based consensus currently is that some grammar instruction is helpful, though there is much disagreement about specifics. She supports the teaching of grammar within a communicative framework, and strongly encourages the use of corpus analysis tools, including CEA.

Regarding learner errors, Meunier (2002, pp. 130-134) and Timmis (2015, p. 140) strongly recommend sharing data with students. Meunier advocates developing exercises that show native and non-native examples side by side. She acknowledges controversy around focusing learner attention on errors. Some instructors fear that patterns of error will be retained in students' memory. Parallel native/learner concordances allow students to notice differences on their own. Though their attention may be directed to errors, they are simultaneously given correct alternatives. By figuring out the differences, they can take charge of their own learning and have fun exploring language patterns.

If language learning is viewed as a process of forming and testing hypotheses, a concern with adult students is that faulty assumptions about language may become habitual and harder to change if not corrected. Ferris (2004) states "Adult acquirers may fossilize and not continue to make progress in accuracy of linguistic forms without explicit instruction and feedback on their errors" (p. 56). She also emphasizes the role of error feedback in empowering students, stating "Students who receive feedback on their written errors will be more likely to self correct them

during revision than those who receive no feedback—and this demonstrated uptake may be a necessary step in developing longer term linguistic competence" (p. 56).

An additional consideration is that many ESL students want help with their grammar. Ferris (2004, 2007) and Moussu (2013) stress that ESL students expect and appreciate feedback on their grammar errors. Many come from educational systems where grammatical accuracy is highly regarded, and may feel confused and alienated if instructors refuse to help. The affective issue of student expectation is an important learning factor. Withholding assistance such as error analysis in the name of a process-oriented writing philosophy may actually be neglectful.

Given the high expectations for university level writing, and the fact that many EAP students are still in the process of developing their interlanguage system to approximate target norms, it is important for EAP writing instructors to be knowledgeable about grammar. They can help students by becoming familiar with how grammar errors impact evaluation, and having a process for identifying which errors their students need to work on.

Chapter III: Methodology

I conducted a 'corpus-driven' study of a computer learner corpus. The corpus consisted of 70 placement essays. A timed essay is an appropriate tool for evaluating current productive language level. The high stakes create a context where most students will make an effort to demonstrate their ability. Students cannot avail themselves of resources such as tutors or dictionaries; the writing represents their current level of independent productive knowledge. My research questions were as follows:

Research Questions

Research Question 1-Which grammar errors strongly impact rater language use scores?

Research Question 2-What is the distribution of grammar errors present in EAP placement essays, overall and at different placement levels?

Participants

The participants in this study were students at a university in the US Midwest who were required to take the university's written English Proficiency Test (EPT) to determine their English level before enrolling in classes. The EPT is required of some international students, and some students who graduated from high school in the US, for whom English is a second or additional language.

Most of the international students who apply to the university have taken either the TOEFL or IELTS exam. Scores in a middle range on these exams—not high enough for exemption, but not low enough to deny admission—require students to take the EPT. Specifically, international students are required to take the EPT if their scores fall in these ranges: 500-599 (paper-based TOEFL) or 61-99 (TOEFL iBT), with subsection scores not below 15 for reading and writing, or 5.5-7.4 (IELTS score). The institutional placement test determines

whether undergraduate students will need to take EAP Reading and Writing. Advisers are informed of graduate students' scores, and given discretion to decide on a course of action. ELL students from US high schools are required to take the EPT if their Accuplacer Reading Comprehension score falls below 55, and they are identified as ELL by having indicated in demographic questions that they had fewer than 8 years of US K-12 schooling and a native language other than English.

The EPT placement test consists of an impromptu essay written in response to a persuasive prompt. For this study, 70 placement essays written in the first two weeks of the fall 2015 semester were analyzed. The test-takers included male and female, undergraduate and graduate students from 19 countries. Table 1 shows students' countries of origin. Most of the international students came directly from their home country in the days and weeks before the test. Some were graduates of the Intensive English Center housed on the university's campus. Students study in this language institute for as many semesters as necessary to successfully complete the program—level 4 for undergraduate students, level 5 for graduate students. This process typically takes two to four semesters.

The only identifying information present on exam materials was student ID. Our ESL department coordinator provided data from the university's student information system on country of origin and Accuplacer/TOEFL/IELTS score. First language is not recorded in the database. In many cases, a reasonable assumption could be made regarding first language—for example, a student from South Korea could be assumed to speak Korean as a first language. In other cases an educated guess could be made, but with no certainty. A number of students were from a university in a region of India, where the primary language is reported to be Hindi. However, there are many languages in India, and no assurance as to what a student would

consider their first language. For this reason first language was not considered in the data analysis. Age and gender were not relevant to my research questions.

Table 1

Participant Data, by Placement Level and Country

	EAP R/W Level 1	EAP R/W Level 2	Exempt	Total per Country
Bangladesh	1			1
Brunei		1		1
Burkina Faso			1	1
Burundi			1	1
Cameroon		1		1
Canada		1		1
China		1	1	2
India	1	5	9	15
Ivory Coast		1		1
Japan		1		1
Kenya			1	1
Kuwait		1		1
Nepal	1	15	7	23
Netherlands		1	1	2
Nigeria			3	3
Saudi Arabia	2	1		3
South Korea	2	5	2	9
Syria		1		1
Turkey		1	1	2
Total per Level	7	36	27	70

Materials

The instrument involved in this study was the essay prompt (Appendix A) given to the participants. The students were asked to read a brief summary of a study about sleep habits among university students. The study concluded that sleep problems could have as harmful an

effect on academic performance as more well-known issues such as alcohol abuse. The article recommended appropriate institutional action to address sleep problems. Students were asked to reflect on the summary and decide whether our university should spend money on providing resources to resolve sleep problems, or if individual students should shoulder this responsibility.

The EPT essays were written under the usual department-determined circumstances. Students were seated in a quiet room with other students, and given paper and pencils. They were not permitted to use dictionaries or other resources. Students had extra paper to outline and take notes. They had 50 minutes to write their essay. They were instructed to read the prompt carefully, and to take time to plan or outline their essay before writing. At the end all the test materials were collected. Most of the students took the EPT in a group session the week before school started. A 'make-up' date was scheduled for students arriving on campus late due to unforeseen circumstances.

After testing, all the materials were collected and stapled together. Essays were scored, per customary department practice, by trained graduate student raters using an analytical rubric (Appendix B) based on the Jacobs et al. (1981) ESL Composition Profile. The rubric provides detailed guidelines for evaluating writing samples in five areas: content, organization, vocabulary, language use, and mechanics. Raters went through a calibration process and then graded essays together in an intensive session. Each essay was read twice. Raters assigned a score in each subcategory, then added these scores for a total score. Then the scores were compared. If they would result in a different placement, they were set aside. If the scores were within 5 points of each other, the two raters discussed and came to an agreement. Otherwise the essay was read by a third reader. If his/her score resulted in the same placement as one of the other two, this placement was chosen and these two scores were averaged. Occasionally none of

the three scores were in agreement. In this case the coordinator or director of the program made a decision—choosing one of the three, averaging two of the three, or simply choosing a score in the placement level deemed appropriate. Additionally, students occasionally came after testing to speak with an administrator, and presented a compelling case for being placed in a different level. In such cases, an administrator changed the score on the front of the test packet to reflect the agreed upon placement. Essays by students who took the placement test after the initial test dates were graded in the same manner, but not in a group setting. Individual raters scored essays on their own as their schedules allowed, and then arranged to hand them off to other raters.

A student's EPT score was computed as the average of the raters' scores, and recorded in the university's student information system. The rubrics with scores and rater comments were stapled to the essays. The possible score range was 31-100: 5-20 for content, 5-20 for organization, 10-25 for vocabulary, 10-30 for language use, and 1-5 for mechanics. Language use and vocabulary were given more weight, with the rationale that EAP courses address grammar and vocabulary concerns that might not be covered in a general English course. This opportunity would be of particular relevance to students with low scores in these areas. The university's required English composition course would cover US academic conventions of content and organization, so students with weaknesses confined to these areas would have ample exposure to quality instruction in that course. Students who scored from 85-100 were exempt from the EAP Reading and Writing requirement, and given permission to enroll in the English composition course. Students who scored from 75 to 84 were placed into the higher level EAP Reading and Writing course. Successful completion of this course would qualify them to take the required English Composition course. Students who scored below 75 were placed into the lower level EAP Reading and Writing course. A grade of A or B would allow them to move on directly

to the required English Composition course. A grade of C or D would require them to take the higher level EAP course.

Data Preparation and Analysis

Following the EA steps explained by Ellis and Barkuizen (2005), the first step of collecting a student sample was largely handled before this study commenced. I finished by typing the essays into Microsoft Word, to make computer aided error analysis possible. The essays were typed in entirety, with all errors left intact. In cases of handwriting that was very difficult to read, I consulted with a colleague for a second opinion on ambiguous words. Information on each essay, such as placement level and scores, was also documented in Excel.

Next I completed the identification stage. I manually identified grammatical errors in the essays. I used a highlighter and marked them directly on scanned copies of the handwritten essays. In keeping with the process described by James (1998) and Ellis and Barkhuizen (2005), no effort was made at this stage to categorize the errors. A simple binary decision was made, as to whether a piece of language contained an error or not.

To ensure reliability, I marked 13 randomly selected essays with a colleague. We marked them separately, and then met to compare and discuss our work. In some cases one of us changed our mind and amended our mark. In other cases we agreed to disagree. Inter-rater reliability was calculated by counting the mutually agreed upon errors, and dividing this figure by each person's number of errors, to yield a percentage. Then the two percentages were averaged for a final figure of 88% inter-rater reliability, which was deemed acceptable. The rest of the essays were marked by me.

After being identified, the description stage was completed by categorizing and tagging the errors using the UAM CorpusTool program. UAM CorpusTool is a text analysis program

developed by the Universidad Autónoma de Madrid, and is available on their web site for free download (http://www.corpustool.com/index.html). UAM CorpusTool allows researchers to annotate text efficiently and systematically. Researchers import text files (.txt) to form the 'corpus'. The next step is to create layers, which contain tagging information organized hierarchically as a taxonomy. UAM CorpusTool provides a simple graphical interface to build schemes, which can be edited later. To tag, the researcher views a file and layer, selects text, and choose from a menu of tags drawn from the layer. When finished they can open the 'Statistics' screen, and request counts and other information about categories of tags. The program comes with two error tagging schemes, including the ICLE scheme, but the option to create custom schemes allows the researcher to create a scheme appropriate for a given research context. Using CorpusTool is much easier, quicker, and more consistent than annotating by hand.

The Lane and Lange (1999) error categories were used as a basis to create an error tag layer for this project. Some adjustments were made to the categories as needed. Some changes were necessary because the taxonomy did not address a given error type. Errors that are considered typical of both native and nonnative speaking students were included, such as run-on sentences. Other changes were made based on the grammatical categories established in *Applied English syntax: Foundations for Word, Phrase, and Sentence Analysis* (Koffi, 2015). These arose primarily with regard to verbs. A verb subcategorization category was established to group together related errors that in the original taxonomy were dispersed over several categories. See Appendix D for explanation and examples of the categories.

In this study the effort was made to follow the standard of modifying learner language as little as possible, as explained above from Nicholls (2003). A *restructure* subcategory under sentence structure was used for stretches of language which could be corrected in a number of

different ways, as discussed by Ellis and Barkhuizen (2005). Sentence structure also includes a subcategory for *incoherent*—rare cases where a phrase or sentence was so jumbled that the intended meaning was unclear to the researcher. For example, “Without geting sound mind students can’t do better in his/her progress height, an individual can be fluctuate in his/her progressive way.”

I did not attempt the fourth explanation stage of error analysis, as it was not relevant to my research questions. For the fifth stage of evaluation, I sought to uncover information that might be useful for assessment and teaching purposes. This was done by conducting statistical analyses. First, I exported counts for each essay from UAM CorpusTool to Excel, for each error type. Because the essays all had different lengths, raw numbers would not be equivalent. A normalized errors/100 words figure was calculated in Excel for each student and each error type. This was done by dividing the raw count by the essay word count, and then multiplying by 100. The resulting error rate was used for statistical tests. For example, one essay consisted of 355 words and 30 errors. The errors per 100 words comes out to 8.45 (30/355, x 100).

A test of Pearson correlation was planned to determine correlation between the language use scores assigned by pairs of raters. In cases of three raters, the language use scores of the two raters whose total scores contributed to the final placement score were used. If none of the three agreed and an administrative decision was made, these exam scores were excluded for this test. Our testing process identified such exams as having been rated inconsistently and they were handled differently. Three such cases appear in this data. There was also one exam which was read by only one rater, and is therefore excluded. The remaining 66 pairs of scores were tested for inter-rater reliability.

Additional correlations were planned to determine the relationships between language use score and quantity of errors, and text features such as word count. For these correlations an average language use score was computed from the rubrics which contributed to the final total score for each student. For example, one essay was assigned a language use score of 25 by one rater, and a 22 by the second rater. The language use score used for the tests was 23.5 ((25 + 22)/2). This choice to average scores was made in accordance with the research focus on placement process functioning. In cases of three raters that required administrative decision, the administrator used either a total from one rubric, or an average of two of the rubrics. In these cases the associated language use score/s was/were used. In two cases where an administrative override was not related to the rubric scores, the raters' rubric language use scores were used. The override decision may have been the result of the student requesting placement in a different level, and explaining special circumstances. Nonetheless, the raters who scored these essays were in agreement.

One-way analysis of variance (ANOVA) was planned to examine language score differences between the three placement levels. For this test, the two cases where an administrator overrode the placement determined by the rubrics were excluded. In these cases the final score assigned was not derived from the figures on the rubrics. The rubrics, and their language scores, did not meaningfully contribute to these students' placement. In cases where an override was not related to the rubric scores, there is no way to extract a language use score because administrators did not fill out a separate rubric.

One-way analysis of variance (ANOVA) was also planned to assess text features and error count differences between the three placement levels. No cases were excluded. Whether

level was determined from the rubrics or based on administrator judgment, the study was designed to determine if error counts in the placement essays differed from level to level.

Chapter IV: Results

Results of the computer-aided error analysis were analyzed using Excel and IBM SPSS Statistics Software. Some initial tests were run to obtain general feedback on the EPT rating process. The test of Pearson correlation showed a statistically significant positive relationship ($r = 0.528$, $p < 0.01$) between the language use scores assigned by pairs of raters. The correlation indicates inter-rater reliability, an important consideration for effective placement testing.

As explained in the Methodology section, an average language score was computed for additional statistical tests. A test of Pearson correlation did not show a statistically significant relationship between essay word counts and either the total EPT scores or the language use sub-scores assigned by raters. This is an encouraging finding, suggesting that raters were impressed by quality, not quantity.

Additional statistical tests and interpretation of data were conducted to answer the two research questions of this study. Following the lead of Lane and Lange (1999), a distinction was made between global and local errors. Lane and Lange stipulate that global errors are more serious than local errors, interfering with understanding. They recommend prioritizing global errors over local errors in classroom work. As explained in the Methodology chapter, The Lane and Lange error taxonomy was modified slightly for this study (see Appendix D). In this study global errors include the error categories of verb tense, verb form, verb subcategorization, modal verbs, passive voice, subordinate clauses, sentence structure, word order, and connectors. Local errors include subject verb agreement, articles, singular/plural, word choice, word form, prepositions, and other. Other includes idioms, pronouns, possessives, and certain punctuation errors.

Research Question 1

Research Question one asked, which grammar errors strongly impact rater language use scores?

A Pearson correlation was performed between language use score and the quantity of total, global, and local errors found in this study. The results showed a statistically significant negative relationship within each of the following pairs: language use score and total errors (r = -0.447, $p < 0.01$); language use score and global errors (r = -0.371, $p < 0.01$); and language use score and local errors (r = -0.441, $p < 0.01$). Raters awarded higher scores to essays with fewer errors. This indicates that raters were in fact responding to grammatical errors in making their language use assessments.

A Pearson correlation was also performed for errors found in each of the 16 major categories used in this study (see Appendix D for taxonomy). Table 2 shows the r and p values for the global and local errors, in total and by subcategory. The subcategories are in descending order of correlation. Correlations were found between language use score and some of these smaller categories of error. The results showed a statistically significant negative relationship within each of the following seven pairs: language use score and sentence structure errors (r = -0.338, $p < 0.01$), language use score and word form errors (r = -0.323, $p < 0.01$); then language use score and passive voice errors (r = 0.305, $p < 0.05$); language use score and article errors (r = -0.242, $p < 0.05$), language use score and singular/plural errors (r = -0.246, $p < 0.05$), language use score and preposition errors (r = 0.255, $p < 0.05$), and language use score and other errors (r = -0.290, $p < 0.05$). This indicates the possibility that when making their language use assessments, raters were especially consistent in reacting to these particular kinds of grammatical errors.

Table 2

Global and Local Errors, Correlation with Language Use Score, r and p Values

Global Error Categories	*r*	*p*	Local Error Categories	*r*	*p*
All Global Errors**	-0.371	0.002	All Local Errors**	-0.441	0.000
7-sentence-structure-ss**	-0.338	0.004	14-word-form-wf**	-0.323	0.006
5-passive_voice_pass*	-0.305	0.010	other*	-0.290	0.015
9-connecting-words-conn	-0.233	0.052	15-prepositions-prep*	-0.255	0.033
8-word-order-wo	-0.232	0.053	12-sing-plural-s/pl*	-0.246	0.040
verb-subcategorization	-0.205	0.088	11-articles-art*	-0.242	0.044
1-verb_tense_vt_	-0.168	0.164	13-word-choice-wc	-0.210	0.081
6-relative_adverbial_and _noun_clause	-0.050	0.679	10-sv-agreement-sv	-0.195	0.105
2-verb_form_vf	-0.037	0.762			
3-modals-modal_	-0.024	0.843			

* significant at the .05 level ** significant at the .01 level

Research Question 2

Research Question two asked, what is the distribution of grammar errors present in EAP placement essays, overall and at different placement levels?

Overall error data for the corpus is shown in Tables 3 and 4. There were 2,432 errors total for the 70 essays, which contained a total of 26,245 words. Table 3 shows the 16 primary categories employed in this study, adapted from Lane and Lange (1999). They are listed in descending order of error quantity in the corpus. The raw quantity in the corpus is shown, along with the percentage of total errors each category represents. The global categories are highlighted in dark blue, the local categories in light blue. The names are the feature names used in UAM CorpusTool, which does not allow spaces. The numbers refer to chapters in Lane and Lange (1999). Categories with no number were added for this study. Missing numbers correspond to

categories combined with other categories for this study. Appendix D contains explanations and examples of the types of error included in the categories.

Table 3

Errors Found in Study Corpus, 16 Main Categories

Main Error Categories	Quantity	Percent
11-articles-art	447	18.38%
7-sentence-structure-ss	300	12.34%
13-word-choice-wc	281	11.55%
other	268	11.02%
12-sing-plural-s/pl	257	10.57%
15-prepositions-prep	172	7.07%
6-relative_adverbial_and_noun_clause	124	5.10%
verb-subcategorization	112	4.61%
10-sv-agreement-sv	102	4.19%
14-word-form-wf	96	3.95%
9-connecting-words-conn	87	3.58%
1-verb_tense_vt_	56	2.30%
8-word-order-wo	49	2.01%
3-modals-modal_	37	1.52%
5-passive_voice_pass	24	0.99%
2-verb_form_vf	20	0.82%
Total	2432	100%

Table 4 shows the subcategories employed in this study, adapted from Lane and Lange (1999). The main categories are listed in the order they appear in the adapted taxonomy, with the 9 global categories first (dark blue header), followed by the 7 local categories (light blue header). The names are the feature names used in UAM CorpusTool, which does not allow spaces. The numbers refer to chapters and sections in Lane and Lange (1999). Categories with no number were added for this study. Missing numbers correspond to categories which were combined with others for this study. The subcategories are listed in descending order of error quantity in the corpus. Appendix D contains explanations and examples of the types of error included in the categories.

Table 4

Errors Found in Study Corpus, Subcategories

Error Subcategories	Quantity
1-Verb Tense	
1-incorrect_vt	56
2-Verb Form	
4-aux_and_main_vb_mismatched	6
aux-missing	6
2-main-vb_phrase_wrong_form	4
3-stative_passive_error	2
6-infinitive_wrong_form	2
Verb Subcategorization	
preps_after_vbs	77
verbal_after_main_vb_wrong_form	22
pure_transitivity	13
Prepositions	
prep_not_needed	31
wrong_prep	25
prep_missing	18
phrasal_verb	2
Transitivity	
oblig_trans_vb_missing_obj	9
intrans_vb_has_obj	2
ditransitive-issue	2
3-Modal Verbs	
1-wrong_modal_for_meaning	24
2-incorrect_form	5
missing-modal	7
extraneous-modal	1
5-Passive Voice	
1-pass-incorrect_form	12
3-vb_cant_be_passive	7
2-passive_voice_missing	5
6-Subordinate Clauses	
adverbial_clause_adv-cl	81
relative_clause_rel-cl	27
noun_clause_n-cl	16
Adverbial Clauses	
1-both_sub_and_coord_conj	6
2-conj_has_wrong_meaning	1
3-conj_is_in_wrong_clause	0
4_prep_phrase_used_instead_of _conj	0
5-adverb_used_as_conj	1
6-advcl-fragment	18
8-future_tense_used	0
4-conditionals_cond	45
other-adv-cl	10
Conditionals	
1,2-vb_issues	40
3-missing_cond	5
Relative Clauses	
1-missing_rel_clause	10
2-wrong_form	8
3-missing_prep	3
4-repetition	2
other_rel_cl	4
Noun Clauses	
1-n_cl_missing	8
3-4-phrase_needed	2
7-reported-question	1
9-ncl-fragment	0
wrong-connector-word	2
other_ncl	3
7-Sentence Structure	
restructure	78
7-sentence-boundary	59
4-missing-words	40
extra-word	23
6-parallel-structure	18
other-repetition	16
incoherent	16
1-be-main-vb-missing	11
5-mixed-sentence-structure	10
2-subject-missing	9
negatives	9
questions	6
missing-other-main-verb	3
3-subject-repeated	2

Table 4 (continued)

restructure	
long	39
short	30
expression-mixup	9
Sentence Boundary	
ro	45
frag	14
8-Word Order	
6,7-adverb-or-adverbial-phrase	29
other-wo	18
3-adverb-w/adj	1
4-adj-w/noun	1
2-pronoun-in-phrasal-vb	0
9-Connectors	
1-missing-conn	38
2-conn-meaning	27
conn-form	16
correlative-conj	6
10-Subject Verb Agreement	
other-misc-sv	37
1-final-s-missing	29
2-agrmt-words-in-btw	13
3-rel-clause-agrmt	12
6-one-of-the-etc	7
4-gerund,-inf,-ncl-subject	3
5-there	1
11-Articles	
1-no-article-used	255
the-not-needed	93
3-a-used-for-0	30
4-a-the-mixed-up	24
2-article-misuse-quantity	22
5-article-instead-of-other-det	16
other-misc-art-errors	7
12-Singular/Plural	
1-countable-n-num	161
2-uncountable-n-is-pl	38
6,7-of-phrase	38
4-adj-made-pl	8
3-demonstrative-agr	5
8-irregular-plural	5
other-spl-problems	2
13-Word Choice	
1-wrong-content-word-used	224
2-word-doesn't-exist	23
6-register	20
4-word-sounds-similar	14
14-Word Form	
2-wrong-word-part	34
1-wrong-pos	30
3-comparatives	20
base_for_gerund_or_inf	12
4-participle-adj	0
15-Prepositions	
1-wrong-prep-b4-or-after-n	127
missing-prep	21
extraneous-prep	14
2-wrong-prep-after-adj	6
awk-prep-phrase	4
Other	
pronouns	105
punctuation	80
possessive	65
idioms	18
Pronouns	
reference	42
switch-person	28
agreement	24
other-pronoun	9
pronoun-needed	2
Possessives	
apostrophe	35
poss-missing	17
of-construction	11
poss_agrmt	2

The largest category of error in this study proved to be articles, accounting for nearly 20% of the total. The next most frequent error types were sentence structure (12.34%), word choice (11.55%), other (11.02%), and singular/plural (10.57%).

Descriptive data overall and for each placement level is displayed in Table 5. Language use score means increased between the three groups. One-way analysis of variance (ANOVA) was conducted at the .05 level for language use score [$F(2, 65) = 32.210$, $p < .000$], using 68 of the essays as explained in the Methodology section. Post Hoc LSD analysis indicates that all pairs of levels: Level 1 ($M = 21.21$, $SD = .951$), Level 2 ($M = 22.86$, $SD = 1.535$), and exempt ($M = 25.36$, $SD = 1.469$) are significantly different in language use score. This finding supports the placement process, indicating that students were placed in appropriate levels based on raters' assessment of their grammatical skill. Word counts also increased across the placements. Words per sentence went up and then down. ANOVA analysis of word count [$F(2, 67) = .782$, $p = .462$] and words per sentence [$F(2, 67) = .249$, $p = .781$] shows that these differences between levels are not statistically significant.

Table 5

Descriptive Essay Data for All 70 Essays

	EAP R/W Level 1	EAP R/W Level 2	Exempt	Overall
Avg. Lang. Use Score	21.21	22.83	25.20	23.59
Avg. Word Count	332.71	367.28	396.07	374.93
Avg. Words per Sentence	17.56	18.49	17.81	18.14
Avg. Total Errors per 100 Words	9.34	10.87	6.93	9.20
Average Global Errors per 100 Words	2.79	3.79	2.33	3.13
Average Local Errors per 100 Words	6.55	7.08	4.60	6.07

Total, Global, and Local error rates all increased from Level 1 to Level 2, and then dropped again from Level 2 to Exempt Level. The Level 1 to Level 2 increase seems to run contrary to the anticipated pattern of error rate decreasing with placement level. One-way analysis of variance (ANOVA) was conducted at the $p < .05$ level for total error count [$F(2, 67) = 7.816$, $p = .001$], global error count [$F(2, 67) = 6.436$, $p = .003$], and local error count [$F(2, 67) = 6.825$, $p = .002$]. Post Hoc comparison using the LSD Test was run. It indicated the total average error rate for Level 2 ($M = 10.87$, $SD = 4.44$) was significantly greater than for exempt ($M = 6.93$, $SD = 3.38$). The global error rate for Level 2 ($M = 3.79$, $SD = 1.84$) was also higher than for exempt ($M = 2.33$, $SD = 1.32$). The same held for Level 2 local error rate ($M = 7.08$, $SD = 3.00$) versus exempt ($M = 4.60$, $SD = 2.30$). The results showed a statistically significant difference between the Level 2 and exempt groups in their overall, local, and global error rates. Students placed in Level 2 EAP courses and students exempted from the program had

significantly different grammar error rates, indicating a clear distinction between these placement decisions in terms of grammar error.

There was no statistically significant difference between Level 1 and either Level 2 or Exempt for any of these three overall error rates. Possibly this is due to the small Level 1 sample size. Figures 2 and 3 show the overall, global, and local error rates for the 3 groups. The dashed lines indicate statistically significant differences.

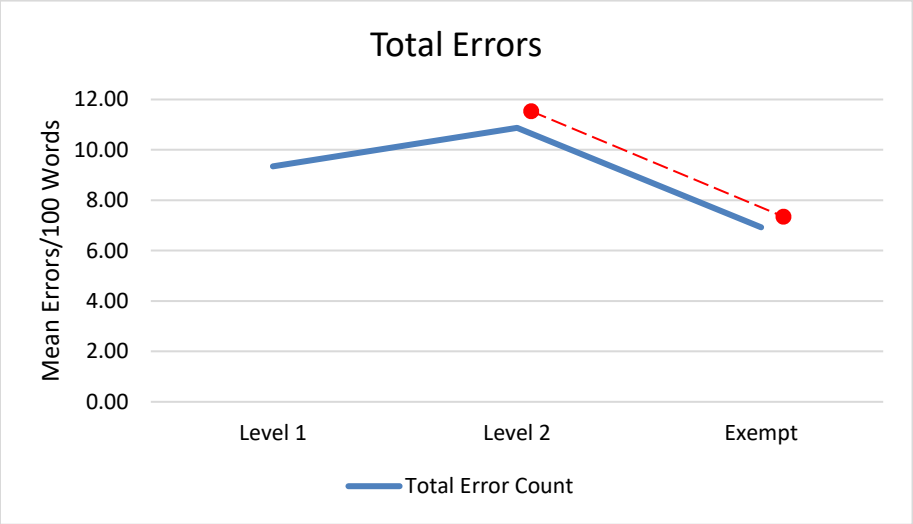

Figure 2. Total errors.

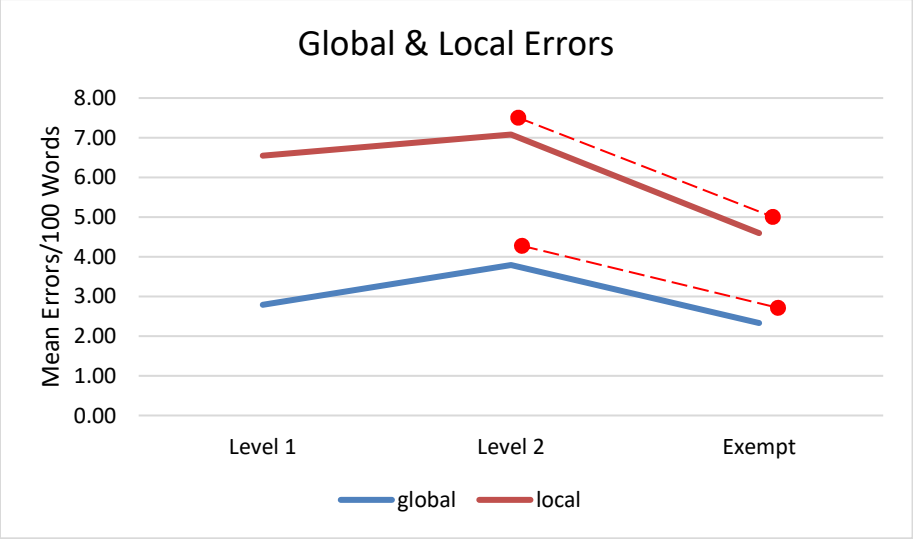

Figure 3. Global and local errors.

Regarding the 16 error categories, ANOVA and LSD Post Hoc analysis revealed some significant differences between the Level 2 and Exempt groups. They differed in terms of sentence structure [$F(2, 67) = 6.201$, $p = .003$], subject verb agreement [$F(2, 67) = 3.855$, $p = .026$], and prepositions [$F(2, 67) = 4.276$, $p = .018$]. For sentence structure, Level 2 ($M = 1.465$, $SD = .969$) exceeded exempt ($M = .785$, $SD = .458$). The same held for subject verb agreement: Level 2 ($M = .517$, $SD = .523$) exceeded Exempt ($M = .197$, $SD = .278$). Lastly, for prepositions, Level 2 ($M = .787$, $SD = .648$) again exceeded Exempt ($M = .406$, $SD = .439$).

Interestingly, as can be seen in the tables and figures, errors rates did not necessarily decrease across the three placement levels. Some errors did follow this pattern. Other error types increased from Level 1 to Level 2 and then decreased at the Exempt level to a lower mean than Level 1. Other error types increased from Level 1 to Level 2 and then decreased at the exempt level to a higher mean than Level 1. This shows that the exempt group actually made more errors on average than the Level 1 group in these categories. The three patterns are shown below in Figures 4, 5, and 6.

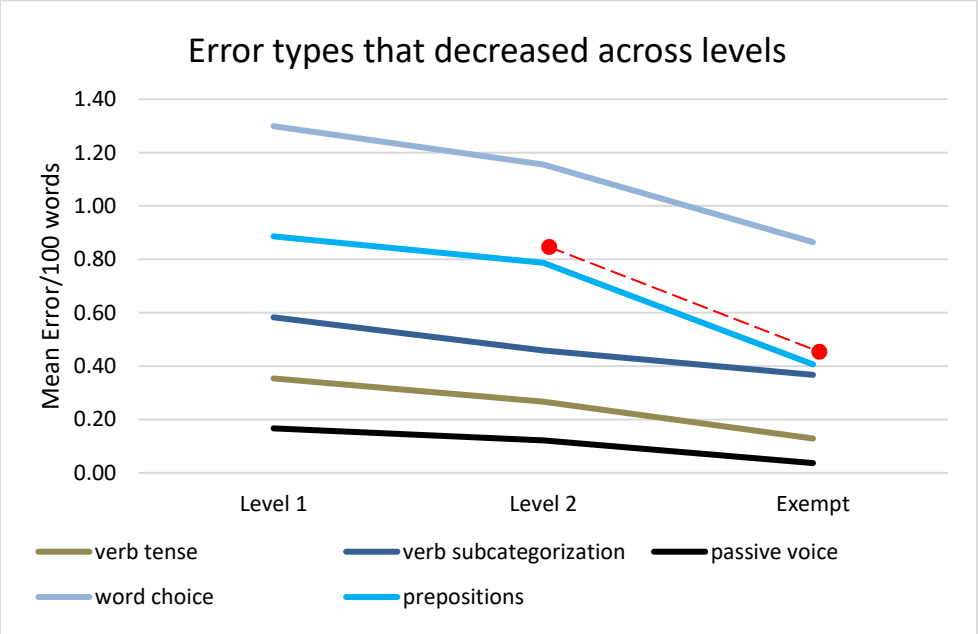

Figure 4. Error types that decreased across levels.

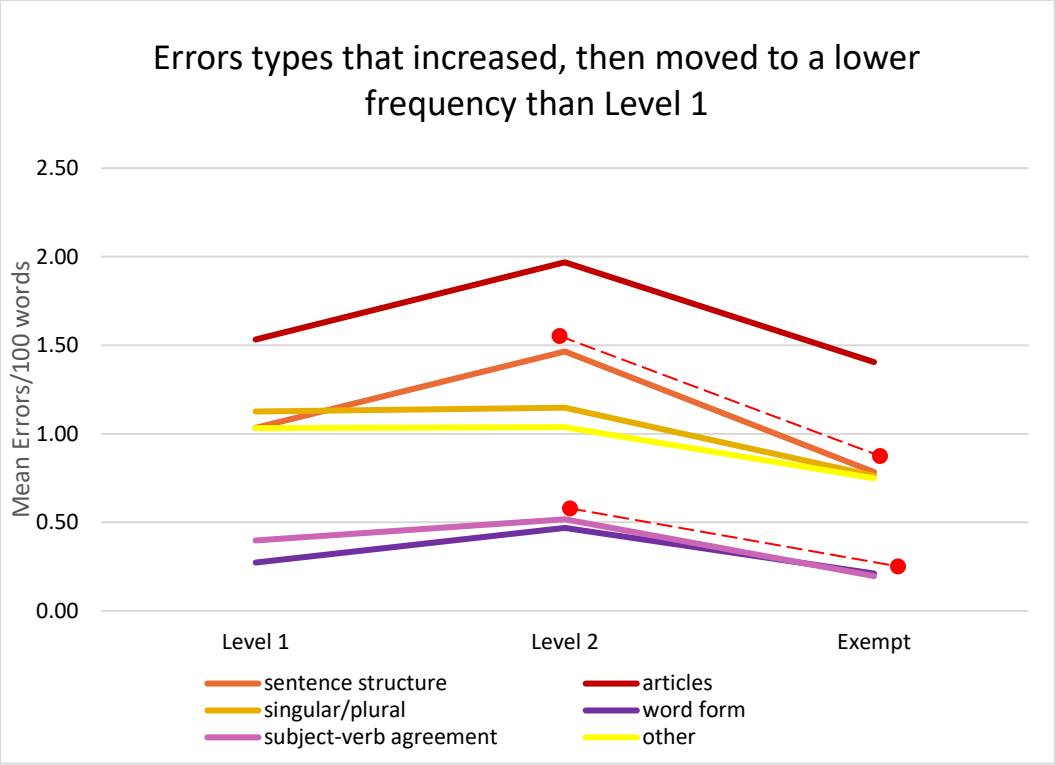

Figure 5. Error types that increased, then moved to a lower frequency than Level 1.

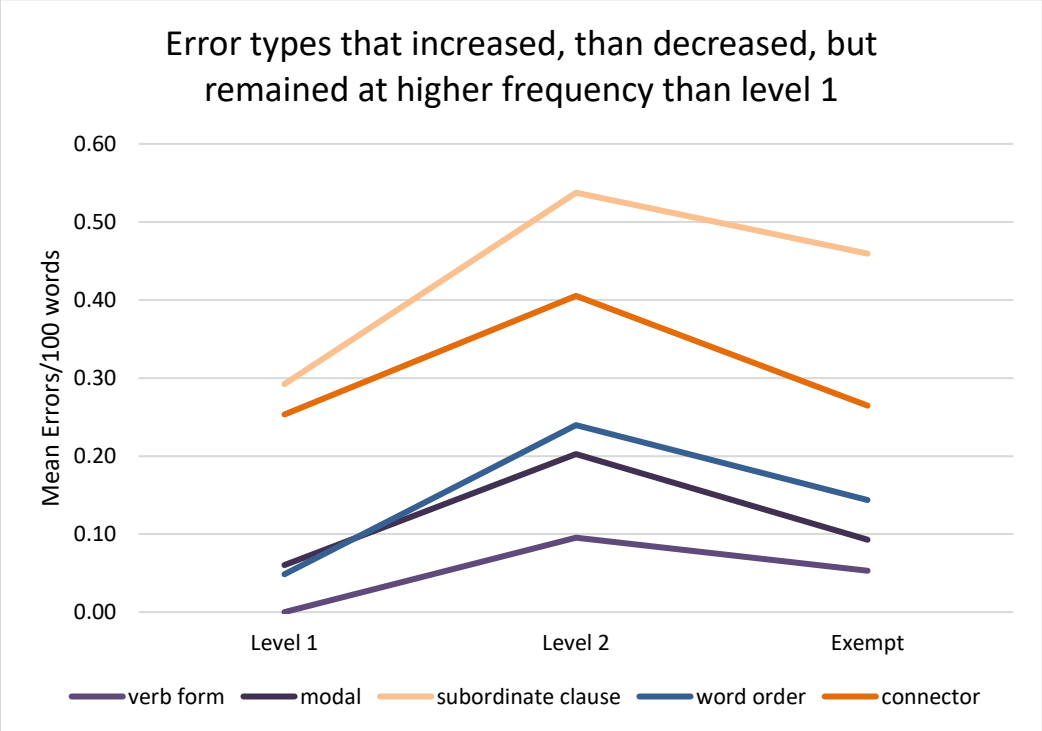

Figure 6. Error types that increased, then decreased, remaining at higher frequency than Level 1.

The common up, then down pattern in the data is interesting. It suggests that the intermediate/advanced students identified as being Level 2 were actually making more of many error types than Level 1. The Exempt group made fewer errors than Level 2—none of the 16 categories show an increase from Level 2 to Exempt. However, the Exempt group is still making more of certain error types than Level 1.

As an alternate way to visualize the date, Table 6 shows error count figures for the three levels presented as normalized quantities. In other words, the total word count for the Level 1 corpus was 2,329; for the Level 2 corpus, 13,222; and for the Exempt corpus 10,694. Reducing errors counts by ratio factors to be equivalent to the smallest corpus results in the figures in Table 6. The same patterns of increase and decrease can be seen.

Table 6

Total Error Counts for the 3 Sub-corpora, Normalized to 2,329 Words

	Level 1	Level 2	Exempt
1-verb_tense_vt_	10.0	5.5	3.3
verb-subcategorization	14.0	10.6	8.3
5-passive_voice_pass	4.0	2.8	0.9
13-word-choice-wc	35.0	27.1	20.0
15-prepositions-prep	23.0	18.7	9.4
7-sentence-structure-ss	26.0	33.5	18.3
11-articles-art	37.0	44.6	34.2
12-sing-plural-s/pl	26.0	26.6	17.4
14-word-form-wf	7.0	10.7	6.1
10-sv-agreement-sv	9.0	12.2	5.2
other	26.0	28.5	17.4
2-verb_form_vf	0.0	2.5	1.3
3-modals-modal_	1.0	4.6	2.2
6-relative_adverbial_and_noun_clause	7.0	13.0	9.4
8-word-order-wo	2.0	5.5	3.5
9-connecting-words-conn	8.0	9.2	5.9

More Detailed Analysis of Six Categories

Above, error categories were considered in terms of three types of measure: correlation between error rate and language use score, raw counts, and ANOVA comparison between error rates of the three placement groups. Sentence structure errors stand out in all three respects. Article errors, preposition errors, singular/plural errors, and other errors stand out in two of the three measures. These five salient categories are discussed in more detail below. Additionally,

the subordinate clause category is discussed because this feature is often considered a sign of syntactic sophistication.

Sentence structure errors. In the category of sentence structure errors, we have the second largest number of errors in the data set (12.34%), a correlation with language use score at the $p < .01$ level, and a difference between levels 2 and exempt at the $p < .05$ level. Sentence structures errors consist of syntactical errors such as a missing subject, a missing verb, or other missing required words. See Tables 4 and 7 for the subcategories of sentence structure error. If we look at Table 7 displaying the mean error rates in total and by level, the top three sub-categories in all cases include restructure, sentence boundary, and missing word. The highest rates for each column are highlighted in yellow. See Figure 7 for a graph of these errors among the levels. One significant correlation exists, between language use score and restructure ($r = -0.339$, $p < 0.01$). The only statistically significant difference at the .05 level between groups was also in the area of restructure [$F(2, 67) = 7.617$, $p = .001$]. Post Hoc LSD analysis indicates Level 2 ($M = .501$, $SD = .544$) and exempt ($M = .096$, $SD = .159$) differed in restructure error rates.

Table 7

Mean Sentence Structure Errors per 100 words, Subcategories

	Level 1	Level 2	Exempt	Overall*
restructure	0.265	0.501	0.096	0.321
7-sentence-boundary	0.183	0.261	0.193	0.227
4-missing-words	0.210	0.144	0.141	0.149
extra-word	0.131	0.080	0.078	0.084
6-parallel-structure	0.000	0.071	0.100	0.075
incoherent	0.024	0.110	0.010	0.063
other-repetition	0.000	0.073	0.059	0.060
1-be-main-vb-missing	0.024	0.075	0.007	0.044
2-subject-missing	0.000	0.036	0.036	0.032
negatives	0.049	0.042	0.010	0.030
5-mixed-sentence-structure	0.041	0.021	0.034	0.028
questions	0.041	0.027	0.014	0.023
missing-main-verb	0.066	0.008	0.008	0.014
3-subject-repeated	0.000	0.016	0.000	0.008

* In decreasing order by overall mean

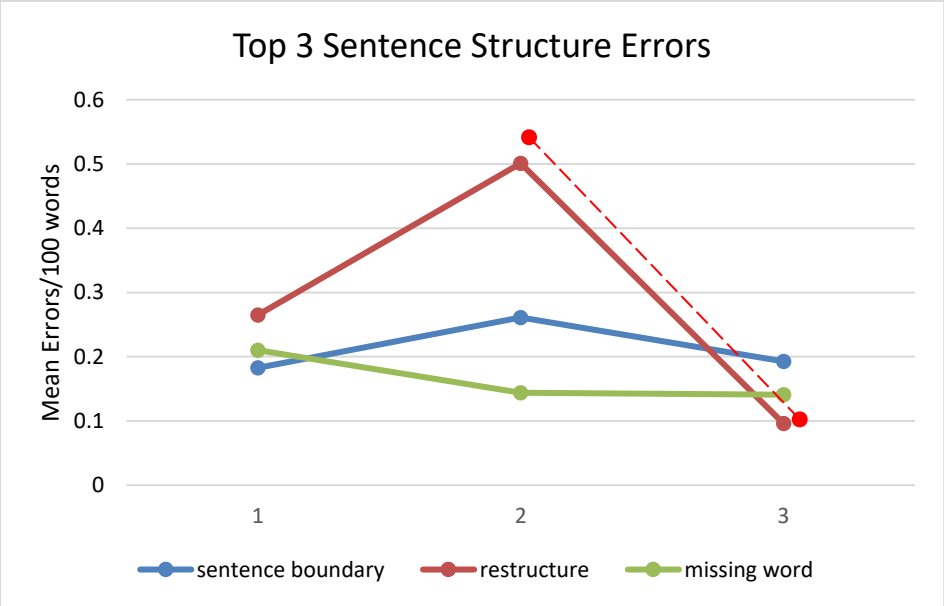

Figure 7. Top 3 sentence structure error sub-categories.

For both Level 1 and Level 2, the highest mean for sentence structure errors is restructure. These errors consist of stretches of language that required 2 or more corrections, and could generally be corrected in a number of different ways. In other words, they represent compound errors where making one change is not enough. For example, consider "…I think it's the good way for the advertisement rather than spending more money…" This could be fixed by saying *I think it's a good way for SCSU to advertise,* or *I think it's a good way of advertising*. Either of these possible corrections requires more than one synchronized adjustment. The mean rate for the Level 2 group increases sharply compared to Level 1, then drops to a lower Exempt level. Possibly the increase occurs as intermediate/advanced students experiment with more complex structures.

Sentence boundary errors, the largest category for the exempt group, consist of run-on sentences and sentence fragments. These errors change less dramatically between the groups, persisting into the exempt group. These errors seem to appear at a somewhat steady rate for the participant groups. Missing word errors consist of errors where a content word is needed aside from the subject or main verb, which have their own categories. These are places where the context makes it clear an additional word is needed. For example, in "…how to overcome to this situation without (becoming) addicted to some other dangerous methods…" *becoming* or another word is needed after *without*. These errors actually drop across the three levels, suggesting some improvement.

Article errors. In the category of article errors, we have the largest number of errors in the data set (18.38%), and a correlation with language use score at the $p < .05$ level. See Tables 4 and 8 for the subcategories of article error. If we look at Table 8 displaying the mean error rates

in total and by level, the top two categories in all cases are *missing article* and *extraneous the*. *Extraneous a/n* and *quantifier* errors come next.

Missing articles account for nearly 60% of the article errors in the corpus. There is a significant relationship between this subcategory and language use score (r = -0.240, $p < 0.05$), the only correlation for these subcategories. The three groups are not significantly different in terms of any subcategory. The *missing article* rate increases from Level 1 to Level 2, then drops at the Exempt level. The *extraneous the* error rate increases from Level 1 to Level 2, then drops but still remains higher than for Level 1. It is possible that as students progress and work on mastering the article system, they over-use articles for a phase of their learning.

Table 8

Mean Article Errors per 100 Words, Subcategories

	Level 1	Level 2	Exempt	Overall*
1-no-article-used	1.002	1.180	0.739	0.992
the-not-needed	0.238	0.398	0.289	0.340
3-a-used-for-0	0.126	0.156	0.090	0.128
2-article-misuse-q	0.043	0.047	0.128	0.078
4-a-the-mixed-up	0.000	0.104	0.057	0.075
5-article-instead-of-other-det	0.101	0.048	0.074	0.063
other-misc-art-errors	0.024	0.035	0.028	0.031

* In decreasing order by overall mean

Figure 8. Top article error sub-categories.

Examples of error types are, no article used: “They will have (a) positive attitude.” Extraneous a/an used, such as before an uncountable or plural noun: “That was such a bad news for him.” Extraneous the: “If the St. Cloud State University develops some resources for sleep problems...”

Quantifier errors increase from Level 2 to Exempt, though the difference is not significant [$F(2, 67) = 2.574$, $p = .084$]. These consist of errors where articles are misused in quantity expressions, for example “Most of (the) student who are concerned...” Possibly the increase could be because students are learning to use more of these expressions, which can be quite tricky. For example we say “A few people”, “a few of the people”, or “few people”. Each version has a slightly different meaning. “I would like to state few supporting reasons” is odd because the intended meaning is “a few.”

Preposition errors. In the category of preposition errors, we have 7.07% of the errors in the data set, a correlation with language use score at the $p < .05$ level, and a difference between levels 2 and exempt at the $p < .05$ level. See Tables 4 and 9 for the subcategories of preposition

error. In this study many preposition errors involving verbs were classified under ‘verb subcategorization’ errors. In such cases the verb determines the preposition that follows. In Table 9 these categories are included to present a complete picture of errors involving prepositions. Including these 76 errors with the other 172 results in 10.20% of the errors in the data set. These verb subcategories were also included in the statistical tests discussed shortly. Table 9 displays the mean error rates in total and by level; the top category in all cases is wrong preposition before or after a noun. This subcategory comprise 51% of the total preposition errors in the corpus. Wrong preposition after verb is next for Exempt. Prep not needed after verb follows for Level 1 and Level 2. There is a significant relationship between language use score and wrong preposition with noun (r = -0.272, $p < 0.05$). Though language use score does not display a relationship with the combined verb/preposition group, there is a relationship with the subcategory extraneous preposition with verb (r = -0.302, $p < 0.05$). With verbs, oversupplying a preposition when not needed in a verb phrase, or choosing the wrong one, seem to be most common. In other prepositional phrases, using the wrong preposition seems most prominent.

Table 9

Mean Preposition Errors per 100 Words, Subcategories

	Level 1	Level 2	Exempt	Overall*
1-wrong-prep-b4-or-after-n	0.699	0.634	0.225	0.483
wrong_prep after vb	0.132	0.109	0.103	0.109
prep_not_needed after vb	0.152	0.131	0.067	0.108
missing-prep after n	0.024	0.059	0.119	0.079
prep_missing-after vb	0.060	0.059	0.080	0.067
extraneous-prep-n	0.097	0.028	0.047	0.042
2-wrong-prep-after-adj	0.000	0.035	0.015	0.024
awk-prep-phrase	0.066	0.031	0.000	0.023
phrasal_verb prep error	0.000	0.004	0.008	0.005

* In decreasing order by overall mean

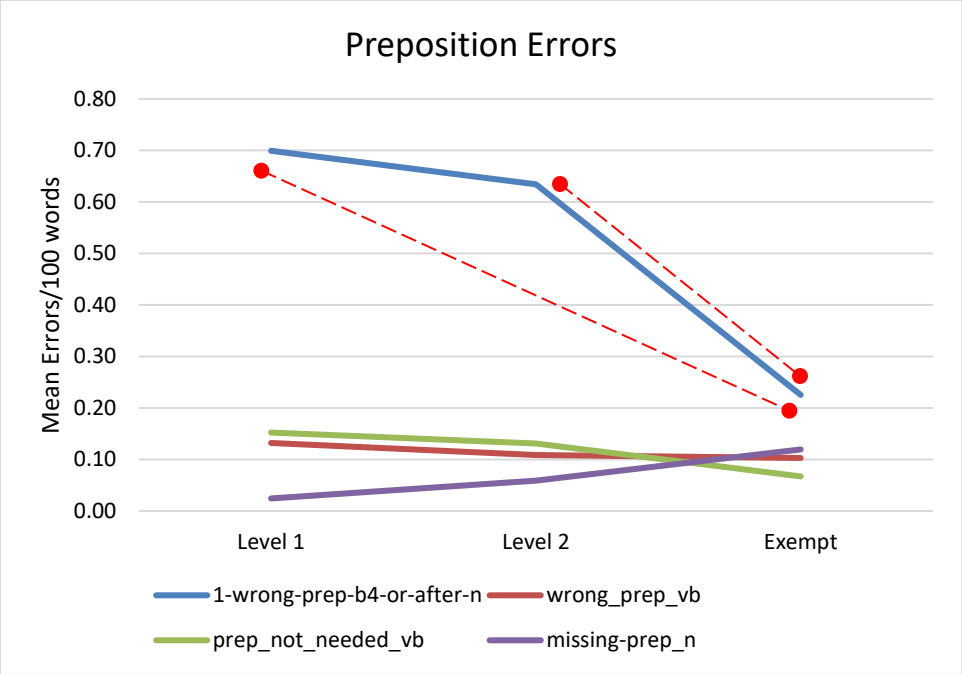

Figure 9. Top preposition error sub-categories.

Wrong preposition with noun errors decrease significantly from Level 1 to exempt and from Level 2 to exempt [$F(2, 67) = 7.662$, $p = .001$], the only significant between level subcategory differences. This particular error seems to improve with advancing level. Though not significant, the missing preposition with noun error rate increase across levels, an unusual pattern. The total number is small (21) so this may not be an important finding. At any rate, in this area improvement is not evident.

An example of wrong preposition with a noun is the sentence "For instance, assume one of the international students just came in (to) the United States…" An example of missing preposition with a noun is the sentence "They love to spend time with their friends late (at) night." An example of preposition not needed with a verb is the sentence "…it can affect to students' health and success." An example of wrong preposition with a verb is the sentence "I believe that SCS should spend money in (on) developing resources."

Singular/plural errors. In the category of singular/plural errors, we have 10.57% of the errors in the data set, and a correlation with language use score at the $p < .05$ level. See Tables 4 and 10 for the subcategories of singular/plural error. Table 10 displays the mean error rates in total and by level, and the top category in all cases is errors with the number of countable nouns. They comprise 63% of the singular/plural errors in the corpus. Errors with uncountable nouns appearing plural are next for Level 2. Quantifier phrases follow for Level 1 and exempt. There is a correlation between language use score and countable noun number errors ($r = -0.236$, $p < 0.05$). The three groups are not significantly different in terms of any subcategory.

Table 10

Mean Singular/Plural Errors per 100 Words, Subcategories

	Level 1	Level 2	Exempt	Overall*
1-countable-n-num	1.005	0.643	0.548	0.642
2-uncountable-n-is-pl	0.000	0.226	0.083	0.148
6,7-of-phrase	0.073	0.154	0.095	0.123
4-adj-made-pl	0.048	0.057	0.000	0.034
8-irregular-plural	0.000	0.023	0.028	0.022
3-demonstrative-agr	0.000	0.039	0.000	0.020
other-spl-problems	0.000	0.006	0.010	0.007

* In decreasing order by overall mean

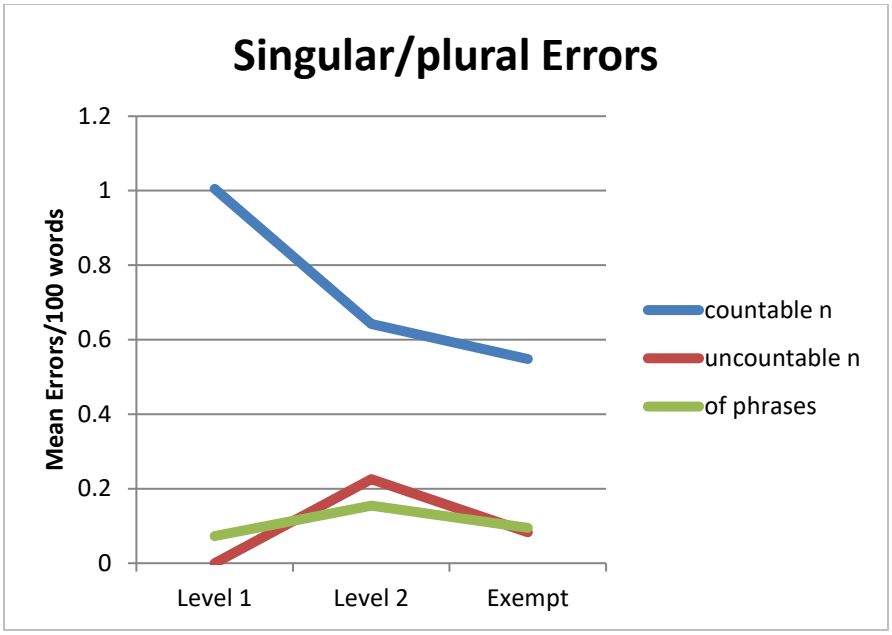

Figure 10. Top singular/plural error sub-categories.

Countable noun number errors occur when a countable noun is singular when it should be plural, or plural when it should be singular. For example "…students from more than eighty six country are studying here." Or "…even so it's an individual matters…" In such errors a determiner or other context clue makes the intended number of the noun clear. Uncountable noun errors occur when uncountable nouns such as 'advice' are mistakenly made plural. For example, "…the quality and amount of researches published every year." Of phrases consist of quantifier phrases following the pattern 'x of y.' Errors arise when a noun phrase is not the correct number. For example, "so this is one of the reason to get sleepy."

Other errors. In the category of other errors, we have 11.02% of the errors in the data set, and a correlation with language use score at the $p < .05$ level. See Tables 4 and 11 for the subcategories of other error. Table 11 displays the mean error rates in total and by level. The other category was created for errors that were not specified in the Lane and Lange error taxonomy, and did not fit logically in existing categories. Given the heterogeneous nature of the

category, it is perhaps not surprising that the results are a little scattered. Pronoun errors are top for Level 1. Punctuation errors are top for Level 2. Possessive errors are top for Exempt. There is a correlation between language use score and both pronoun errors (r = -0.281, $p < 0.05$) and punctuation errors (r = -0.271, $p < 0.05$).

Table 11

Mean Other Errors per 100 Words, Subcategories

	Level 1	Level 2	Exempt	Overall*
pronouns	0.739	0.354	0.256	0.355
possessive	0.294	0.236	0.293	0.264
punctuation	0.000	0.387	0.109	0.241
idioms	0.000	0.060	0.090	0.065

* In decreasing order by overall mean

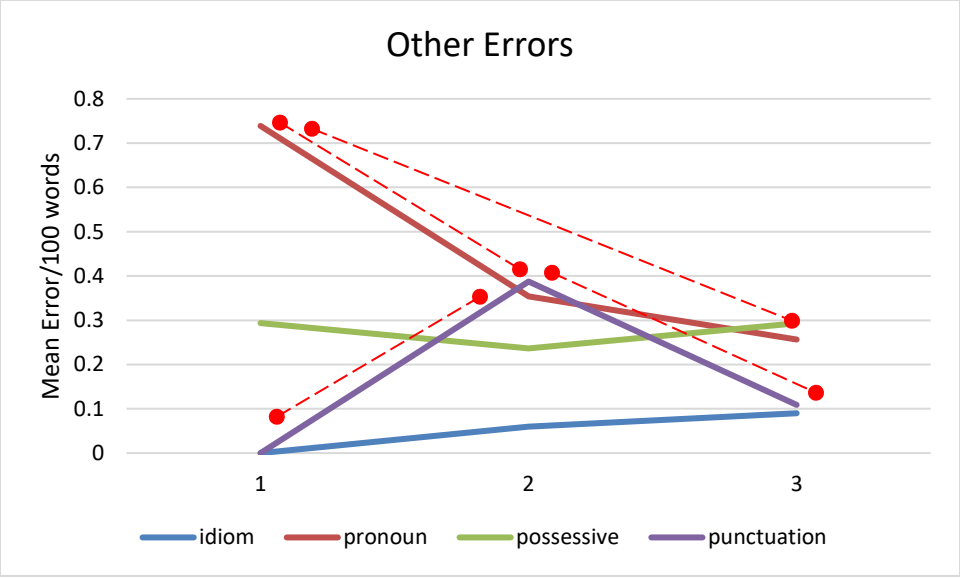

Figure 11. Other error sub-categories.

Pronoun errors decrease significantly from Level 1 to Level 2 and from Level 1 to exempt [$F(2, 67) = 3.543$, $p = .034$]. The error type appears to improve with level. Pronoun

errors include errors such as pronoun agreement, unclear reference, and switching person inappropriately. An example of pronoun reference, the largest subcategory, is "According to experts, these can trigger the same effects like alcohol or drug abuse" where there is no clear antecedent for *these* in the text.

Punctuation errors increase significantly from Level 1 to Level 2, and decrease significantly from Level 2 to Exempt [$F(2, 67) = 3.987$, $p = .023$]. In this study, given that the intent was to research grammar errors rather than mechanical errors, punctuation errors were confined to instances where punctuation was required to clarify meaning. Additionally some errors that might be considered punctuation errors were handled in other categories. Run-on sentences and sentence fragments were categorized under sentence structure. An example of punctuation error is "These kinds of problems have adverse effects (,) especially on freshmen (,) creating academic problems." Without the commas it is unclear whether academic problems are being created by freshmen, or by the problems initially mentioned. Possibly the increase at Level 2 could be attributed to students using more complex syntactical patterns without realizing they needed punctuation for clarity. It is also interesting that idiom errors increase across the levels, though the small amount (18) makes it difficult to draw conclusions. Perhaps this happens because students are just beginning to incorporate idioms in their writing. An example is "From the long run, schools should provide some help…" where the context indicates *for the long run* was intended.

Subordinate clause errors. In the category of subordinate clause errors, we have 5.10% of the errors in the data set, and no correlation with language use score. See Tables 4 and 12 for the subcategories of subordinate clause error. Table 12 displays the mean error rates in total and

by level. Adverbial clause errors are top for Level 2 and exempt, while relative clause errors are top for Level 1. The three groups are not significantly different in terms of any subcategory.

Table 12

Mean Subordinate Clause Errors per 100 Words, Subcategories

	Level 1	Level 2	Exempt	Overall*
adverbial_clause_adv-cl	0.085	0.345	0.317	0.308
relative_clause_rel-cl	0.208	0.126	0.066	0.111
noun_clause_n-cl	0.000	0.067	0.076	0.064

* In decreasing order by overall mean

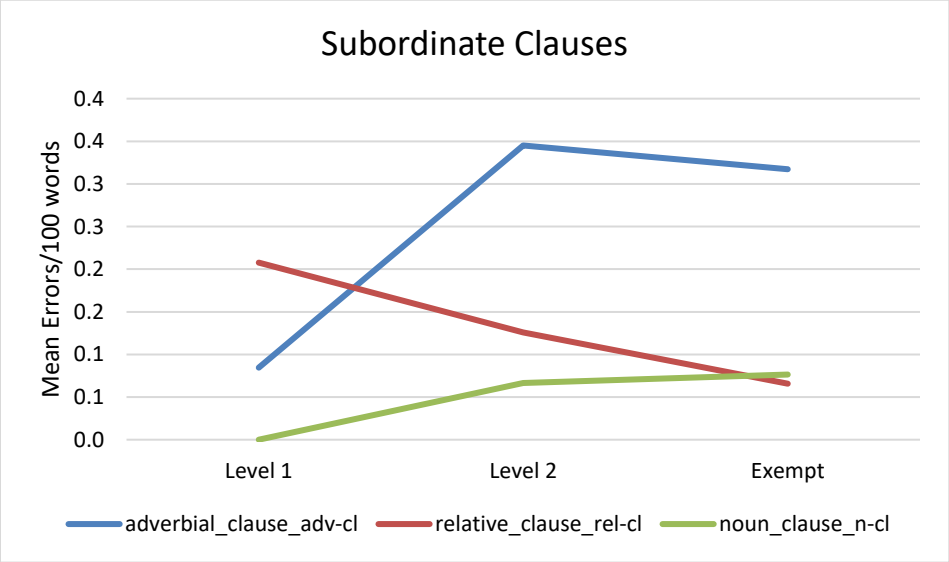

Figure 12. Subordinate clause error sub-categories.

Subordinate clauses are of interest because they are often regarded as evidence of syntactic complexity for advanced students (Ellis & Barkhuizen, 2005, pp. 155-156). Here the adverbial clause error subcategory followed the typical up, down pattern found in so many categories. Relative clause errors actually decreased across the levels, while noun clause errors increased. The total number of errors is 81 for adverbial clauses, 27 for relative clauses, and 16

for noun clauses. The minimal number of errors in this data set could be due to a low incidence of attempts to construct subordinate clauses. Unfortunately, the study did not measure successful or partially successful attempts. The fact that the largest subcategory increased at Level 2, and remained at approximately the same level for exempt, might indicate progress in attempting to construct complex sentences. Further analysis would be required to determine this. The lack of correlation with language use score might be related. The first descriptor in the "Very Good" section of the rubric is "Effective complex constructions." Perhaps an attempt to use more complex syntax such as subordinate clauses was noticed by raters, and counterbalanced any errors produced.

An example of relative clause error is "There are many cases that (where, or in which) students cannot sleep well." The selection of relative pronoun does not work. Approximately half of the adverbial clause errors involved conditional constructions, which are considered a variety of subordinate clause here per Koffi (2015, pp. 408-410). Many of these errors involved mismatch between verbs in the clauses. An example is "...if SCSU spends some money on developing resources for sleep problems, this facility helps (will help) to develop a system for the students…" Another example of adverbial clause error is "Though some students might get it through research, but everyone is not adapted to the time-table…" Here the conjunction *but* is redundant. A noun clause error example is "I suggest SCSU to spend money so that they can help students…" In the Lane and Lange system such subjunctive mood clauses expressing a recommendation are classified as noun clauses. This sentence could be written "I suggest that SCSU spend..."

Chapter V: Discussion

The results of this study reflect positively on the EAP placement process. Graduate student raters come from a wide range of backgrounds in terms of L1, educational background, etc. The preparation for rating takes place over a few hours. Yet, the inter-rater correlation found suggests that the calibration and checks and balances incorporated into the process are highly effective in mitigating differences.

Language use score is only part of the analytical rubric used for rating, though it is weighted more heavily given the programmatic emphasis on this area. The concern might arise that a student with excellent content and organization, but poor grammar, would receive a high score exempting him/her from an EAP course he/she might need. Though ultimate placement was determined by the overall score, the correlation between overall and language use scores indicates that placements were appropriate in terms of language score as well.

Research Question 1

Research Question one asked, which grammar errors strongly impact rater language use scores?

The results of this study suggest that raters were impacted by grammar errors, when assessing students' language use ability. Their ratings correlated to total errors, and to both global and local errors (see Table 13). As emphasized by Vann et al. (1991) and James (1998), it is important to remember that there are many possible criteria for judging error in writing. Studies that examine how comprehensible a text is may suggest that local errors do not matter. The task of evaluating writing for quality is different from reading it for understanding. In this case, rater assessment of academic language use correlated with local scores overall, and in

particular for the local subcategories of articles, singular/plural, prepositions, word form, and other.

Vann et al. (1984) explain that the inspiration for their initial study came from a letter written by an engineering professor to a graduate dean at Iowa State University. The professor was distressed about the writing ability of his ESL graduate students and included a sample paper with his letter. The researchers reviewed the sample, and found primarily sentence-level "local" errors. They felt that the meaning in the paper was actually clearly conveyed. This example shows that local errors can be an important concern in academic writing. Though global errors may be given higher priority, as recommended by Lane and Lange (1999), local errors should not be forgotten. Faculty and potential employers may regard their presence as indicators of incompetence or lack of professionalism.

The argument that local errors are less important because they don't interfere with meaning is also worth examining. Santos (1988) noted some discrepancy in professors' ratings of errors in two ESL essays. Of the errors rated most serious in one essay, out of 17, four were lexical and one was an article error. For the second essay a range of ratings also appeared for different error types. The only consistent pattern Santos observed was seriousness of lexical errors, which by definition impact meaning. Myers' (2003) suggestion is helpful "…a tutor would be better advised to simply as herself or himself, during the reading of a text, what, if anything, most confuses meaning here? Or, what, if anything, makes the meaning most difficult to process, even if it is recoverable? In some contexts, it may indeed be even the misuse or omission of a single definite or indefinite article" (pp. 294-295).

Myers (2003) also questions the notion that local errors can be easily resolved by students on their own, and therefore do not merit instructional time. She criticizes "…the practice of

waving away what native speaking tutors or instructors define as ‘local’ or ‘surface’ errors, ‘minor irritants’ that the student should be able to clear up relatively easily. In reality these errors often reflect extremely complex problems for second-language learners. Subject-verb agreement often falls into this category” (p. 62). She then proceeds to break down some of the sources of confusion, including the semantic concept of noun countability, the variations of the third person ‘s’ morpheme, and compound nouns. She also takes issue with dismissing article errors. “As for ‘incorrect or missing articles’, insofar as they embody anaphoric relations (those which refer back to previous discourse), their significance (and therefore the choice of whether or how to use them) can span across hundreds of pages or years of shared knowledge; their use is not at all confined to the insides of sentences or to the local demands of a noun phrase” (p. 63).

It appears that the global/local distinction, especially as far as designating certain grammatical issues to be minor errors, should be viewed with caution.

Research Question 2

Research Question two asked, what is the distribution of grammar errors present in EAP placement essays, overall and at different placement levels?

Overall, the average number of errors per 100 words in the data set was 9. If McGirt (as cited in Lane & lange, 1999, p. 15) was correct in his assertion that instructors tolerate about 3 errors per 100 words, this is too many. The exempt level produced 7 errors per 100 words, still more than twice as many as McGirt’s study allowed. More current research would need to be done to determine the applicability of the 3 limit, but the fact remains that the students are making errors EAP instructors could help with.

The distribution of errors among the 16 subtypes reveals that local errors are more common than global errors. Article, sentence structure, word choice, singular/plural, and other

are the subcategories with highest averages. Sentence structure is a key aspect of writing, and it is to be expected that students will be expanding their repertoire of syntactic structures and producing errors as their proficiency develops. This study did not focus on vocabulary. It would be useful to examine how the word choice errors correlated to the vocabulary rubric scores.

Table 13

Global and Local Errors, Distribution

Global Error Categories	avg per 100 words	**Local Error Categories**	avg per 100 words
All Global Errors	3.128	All Local Errors	6.069
7-sentence-structure-ss	1.159	11-articles-art	1.708
6-relative_adverbial_ and_noun_clause	0.483	13-word-choice-wc	1.057
verb-subcategorization	0.436	12-sing-plural-s/pl	0.997
9-connecting-words-conn	0.336	other	0.926
1-verb_tense_vt_	0.222	15-prepositions-prep	0.650
8-word-order-wo	0.184	10-sv-agreement-sv	0.382
3-modals-modal_	0.146	14-word-form-wf	0.350
5-passive_voice_pass	0.093		
2-verb_form_vf	0.069		

The frequent pattern of increase in error rate from Level 1 to Level 2 was surprising. Total, global, and local errors all increase from Level 1 to Level 2, then drop at Exempt to a point lower than Level 1. Of the 44 sub-categories discussed in the Results section, 27 or 61% showed an increase from Level 1 to Level 2. 20 sub-categories, or 45%, actually showed an increase from Level 1 to exempt. This result differs from Dagneaux at al. (1998), where a group of intermediate students was compared to a group of advanced students. Here the errors in the writing samples decreased in all the error categories listed in the study. These groups were

separated by a two-year gap, a larger difference than in the current study. Perhaps over the longer term error rates can be expected to decrease, but with groups closer in level the pattern is more complex.

Students were placed in the three groups based on their overall score, not language use score. If placement cutoffs had been based on language use score alone, perhaps this pattern would not appear. An error profile of students receiving high scores on language use and vocabulary, but poor scores on content and organization, could result in students with high levels of grammatical competence being placed in EAP Level 1. This particular profile does not appear in this data set, but the small size of the Level 1 group (7) makes it difficult to draw conclusions. Alternatively, perhaps the increase in errors at Level 2 occurred as students incorporated more sophisticated elements into their writing. The first descriptor in the 'Very Good' section of the rubric is "Effective complex constructions." Perhaps an attempt to use more complex forms was noticed by raters, and offset the errors produced as a result. Again, a larger Level 1 group would have been ideal.

Chapter VI: Conclusion

Suggestions for Future Research

This study grew out of a wish to understand grammar needs in order to better serve students. This was done through computer-aided error analysis. Though some useful results were found, there are also gaps. It became evident during the process that the ideal study would consider language features in terms of both errors and successful productions. This is particularly true in the case of features that may not appear at all in lower level writing-- features which are not strictly necessary for putting together correct sentences but which can convey a higher level of linguistic mastery. For example, this study would have been more complete with data on overall attempts to produce subordinate clauses, along with error data. Focus on error alone creates an incomplete picture. A future study might employ a performance analysis design, looking at both errors and correct usage.

This study represents a snapshot of student performance. Though three placement levels were compared, this approach did not allow for an assessment of progress over time. A longitudinal study evaluating errors would be very useful. Scholars stress that learners' interlanguage is of primary interest to SLA and TESL research. A longitudinal perspective would ideally map progress from beginning to more polished production. Such data might reveal interesting developments, such as increase in subordinate clause or idiom use, or a temporary tendency towards oversuppliance in the process of learning a feature.

Carrying out this study forced the researcher to think deeply about grammar, to consult many references, and to discuss grammar with colleagues. This process had significant professional development value in and of itself. A future study could involve implementing a similar process for staff development. A group of EAP writing instructors could tag a set of

placement essays together at the start of a term, analyze results, and agree on an agenda for grammar instruction. A study would ideally evaluate their impressions of the experience and their pre-and post-levels of confidence and grammar knowledge.

It would also be useful to obtain current information on faculty expectations for student writing. Possibly they remain the same, possibly they have shifted. As Santos (1988) stresses, in the rhetorical situation of the university, professors are the audience. A solid understanding of how this audience will react to student work is essential. It would also be interesting to compare the reactions of EAP instructors to faculty outside the EAP department. All of these efforts would help EAP instructors focus their efforts to prepare students for the academic English demands of university.

Pedagogical Implications

Ferris (2003) recommends that ESL writing teachers invest time in creating a diagnostic inventory of errors at the start of a term. This can be done by hand. Computer applications such as UAM CorpusTool make the annotation process quicker and more consistent. A process similar to the one undertaken for this study could be used at the beginning of a semester to develop a course syllabus of grammar errors. Then progress over the semester could also be tracked. The possibility of creating one's own errors schemes allows teachers the flexibility to choose the categories and the level of detail suitable for their situation.

Error statistics in this study suggest some language features to which teachers might want to devote instructional time. The sentence structure subcategory *restructure* is heterogeneous, but these errors could create an opportunity for students to problem-solve together and learn from one another. Sentence boundary rules, which are fairly straightforward though easy to overlook, could be reviewed. The article system is quite complex and unwieldy to cover in entirety. Results

from this study show that omitting an article was by far the most common error. Sharing this with students, and reviewing the conditions which require an article, could be beneficial. Preposition errors involving the wrong preposition with a noun were most common. It might be helpful to review resources such as a collocations dictionary, which can help students select appropriate companion words if in doubt. In the category of singular/plural, inappropriate number of countable nouns was by far the most common error. In subject-verb agreement omitting the final "s" of third person singular verbs was common. These findings present an opportunity to review and practice these grammatical patterns.

A concordance feature allows teachers to search for examples of errors easily. A teacher with an error corpus could instantly generate a screen showing all lines with a given error type. Exercises could be created from the student samples. For example, Meunier (2002) recommends using parallel native/learner concordances, where an excerpt with an error is printed alongside a corrected version. These exercises allow students to notice and explain differences on their own. Samples from a class corpus could be used to generate these activities. Addressing grammar in a contextualized manner, using instances drawn from students' own work, ensures that lessons are relevant and do not waste the limited time available for grammar instruction.

The increase of errors from Level 1 to Level 2 in this study is also significant for teaching. Students are bound to make errors as they experiment with challenging new structures, and should be congratulated for taking risks. A learning curve is not limited to EAP students. Academic language is a new dialect for many native English-speaking students as well, a fact, which may reassure EAP students. Bartholomae (1986) conducted a study of English Composition placement essays. He includes a placement essay on the topic of creativity, where the student recounts building a clay model of the earth. The prose is convoluted and strange, full

of constructions such as “Creativity is the venture of the mind at work with the mechanics relay to the limbs from the cranium, which stores and triggers this action” (p. 5). Despite the strangeness, Bartholomae believes that this student is actually well on his way. He is trying to grapple with difficult concepts. He is also trying on the linguistic conventions of academic discourse. He has read enough to have internalized a rough sense of the ‘rhythm’ of this discourse. There are gaps in his performance, but he is on the right track. Bartholomae contrasts his essay to that of another student, who writes about wearing different colored socks and cleats for football as an example of creativity (pp. 14-15). This student’s essay is grammatically correct, employing simple constructions. He ties up the topic quickly and efficiently, locating himself in a simplistic discourse that is well within his comfort zone. Bartholomae laments that it will be hard to get this student to step into more complex terrain. In this case, the error-laden paper represents an attempt to grow. Writing courses should provide scaffolding, opportunities to as Bartholomae says produce “successive approximations of academic or ‘disciplinary’ discourse” (p. 11). For EAP instructors, it is important to not encourage lock-step correctness in the pursuit of grammatical accuracy. Students must experiment in order to grow.

If a balanced perspective can be maintained, a fruitful place for grammar can be found in the classroom. Aside from the academic ramifications, grammatical expertise gives students the freedom to express themselves fluently. For Richard Cullen (2008) the rules of grammar are actually not “a linguistic straightjacket” (p. 221) limiting language users; quite the opposite. Without grammar, students may not be able to accurately and appropriately express their meaning. Strategies that might work in conversation, such as gestures and other non-verbal cues, are not available in writing. If a student lacks grammatical competence, they may resort to constructions that do not accurately capture their intended meaning. Cullen discusses how ESL

writers progress by working on authentic tasks, comparing their own to others' work including that of native speakers, and noticing differences. This approach complements Meunier's (2002) recommendations regarding showing errors alongside correct versions. Students need output tasks that force or push them to stretch and apply grammar, and also provide opportunities to notice gaps in their interlanguage system. Their developing grammatical proficiency confers the ability to convey subtle nuances of meaning, including appropriate formality, verb tense and aspect, hedging, etc. EAP instructors are responsible for assisting in this process.

An awareness of the error patterns in texts produced by students can help EAP teachers plan meaningful grammar instruction and review. Students will benefit from focused efforts to facilitate their process of becoming proficient writers of academic English. Writing skill will serve them well in their future academic and professional careers.

References

Bartholomae, D. (1986). Inventing the university. *Journal of Basic Writing, 5*(1), 4-23.

Bates, L., Lane, J., & Lange, E. (1993). *Writing clearly: Responding to student writing.* Boston: Heinle & Heinle Publishers.

Burt, M. K., & Kiparsky, C. (1972). *The Gooficon, a repair manual for English*. Rowley, MA: Newbury House.

Corder, S. P. (1974). Error analysis. *The Edinburgh course in applied linguistics, 3,* 122-131.

Crystal, D., & Quirk, R. (2012). *A comprehensive grammar of the English language*. Harlow: Longman.

Cullen, R. (2008). Teaching grammar as a liberating force. *ELT Journal*, *62*(3), 221-230.

Dagneaux, E., Denness, S., & Granger, S. (1998). Computer-aided error analysis. *System*, *26*(2), 163-174.

Davies, M. (2008) *The Corpus of Contemporary American English: 450 million words, 1990-present.* Available online at: http://corpus.byu.edu/coca/.

Díaz-Negrillo, A., & Fernández-Domínguez, J. (2006). Error tagging systems for learner corpora. *Revista española de lingüística aplicada*, (19), 83-102.

Dulay, H., Burt, M., & Krashen, S. (1982). *Language two*. New York: Oxford University Press.

Ellis, R. (2014). Principles of instructed second language learning. In M. Celce-Murcia, D. Brinton, & M. A. Snow (Eds.), *Teaching English as a second or foreign language* (pp. 31-45). Boston, MA: National Geographic Learning.

Ellis, R., & Barkhuizen, G. P. (2005). *Analysing learner language*. Oxford, England: Oxford University Press.

Ferris, D. R. (1993). The design of an automatic analysis program for L2 text research: Necessity and feasibility. *Journal of Second Language Writing*, *2*(2), 119-129.

Ferris, D. (2002). *Treatment of error in second language student writing.* Ann Arbor, MI: The University of Michigan Press.

Ferris, D. R. (2003). *Response to student writing: Implications for second language students*. Routledge.

Ferris, D. R. (2004). The "grammar correction" debate in L2 writing: Where are we, and where do we go from here? (and what do we do in the meantime…?). *Journal of second language writing*, *13*(1), 49-62.

Ferris, D. R. (2005). *Treatment of error in second language student writing*. Ann Arbor, MI: The University of Michigan Press.

Ferris, D. (2007). Preparing teachers to respond to student writing. *Journal of Second Language Writing*, *16*(3), 165-193.

Ferris, D., & Hedgcock, J. (2005). *Teaching ESL composition: Purpose, process, and practice*. Mahwah, N.J: Lawrence Erlbaum Associates.

Granger, S. (2002). A bird's eye view of learner corpus research. In Granger, S., Hung, J., & Petch-Tyson, S. (Eds.), *Computer learner corpora, second language acquisition, and foreign language teaching* (pp. 3-33). Amsterdam, Netherlands: John Benjamins Publishing.

Granger, S., Dagneaux, E., Meunier, F., & Paquot, M. (2009). *International corpus of learner English v2.* Louvain-la-Neuve, Belgium: Presses universitaires de Louvain. Available online at: https://www.uclouvain.be/en-277586.html

Grant, L., & Ginther, A. (2000). Using computer-tagged linguistic features to describe L2 writing differences. *Journal of second language writing, 9*(2), 123-145.

Harris, M., & Silva, T. (1993). Tutoring ESL students: Issues and options. *College Composition and Communication, 44*, 525-537.

James, C. (1998). *Errors in language learning and use: Exploring error analysis*. London, England: Longman.

Jacobs, H. L., Zinkgraf, S. A., Wormuth, D. R., Hartfiel, V. F., & Hughey, J. B. (1981). *Testing ESL composition: A practical approach.* Rowley, MA: Newbury House.

Koffi, E. (2015). *Applied English syntax: Foundations for word, phrase, and sentence analysis*. Dubuque, Iowa: Kendall Hunt Publishing Company.

Lane, J., & Lange, E. (1999). *Writing clearly: An editing guide*. Boston: Heinle & Heinle Publishers.

Lennon, P. (1991). Error: Some problems of definition, identification, and distinction. *Applied linguistics, 12*(2), 180-196.

Lightbown, P. M., & Spada, N. (2013). *How languages are learned* (4th ed.). Oxford, England: Oxford University Press.

Lindquist, H. (2009). *Corpus linguistics and the description of English*. Edinburgh, England: Edinburgh University Press.

Meunier, F. (2002). The pedagogical value of native and learner corpora in EFL grammar teaching. In Granger, S., Hung, J., & Petch-Tyson, S. (Eds.), *Computer learner corpora, second language acquisition, and foreign language teaching* (pp. 119-141). Amsterdam, Netherlands: John Benjamins Publishing.

Moussu, L. (2013). Let's talk! ESL students' needs and writing centre philosophy. *TESL Canada Journal, 30*(2), 55.

Myers, S. A. (2003). Reassessing the "Proofreading Trap": ESL Tutoring and Writing Instruction. *Writing Center Journal*, *1*(1), 51–70.

Nicholls, D. (2003, March). The Cambridge Learner Corpus: Error coding and analysis for lexicography and ELT. In *Proceedings of the Corpus Linguistics 2003 conference* (Vol. 16, pp. 572-581).

Reid, J. M. (1993). *Teaching ESL writing*. Englewood Cliffs, NJ: Prentice Hall.

Roberts, F., & Cimasko, T. (2008). Evaluating ESL: Making sense of university professors' responses to second language writing. *Journal of Second Language Writing*, *17*(3), 125-143.

Santos, T. (1988). Professors' Reactions to the Academic Writing of Nonnative-Speaking Students. *Tesol Quarterly,* 22(1), 69-90.

Timmis, I. (2015). *Corpus linguistics for ELT: Research and practice*. Abingdon, England: Routledge.

Vann, R. J., Lorenz, F. O., & Meyer, D. M. (1991). Error gravity: Faculty response to errors in the written discourse of nonnative speakers of English. In L. Hamp-Lyons (Ed.), *Assessing second language writing in academic contexts*, (pp. 181-195). Norwood, NJ: Ablex Publishing Corporation.

Vann, R. J., Meyer, D. E., & Lorenz, F. O. (1984). Error gravity: A study of faculty opinion of ESL errors. *Tesol Quarterly*, *18*(3), 427-440.

Appendix A: EPT Prompt

Final score _____ Student ID#_____
Date _____

College ESL Composition Placement Test
Spring 2015

Part 1: Read this short background text.

According to a research study at a university in Minnesota, college students who sleep poorly are much more likely to earn bad grades and withdraw from a course than healthy sleeping peers. Results show that the timing and quality of sleep in college students are strongly linked to academic problems – especially for freshmen. The study also found that sleep problems have almost the same effect on grade point average (GPA) as other problems such as alcohol or drug abuse. According to the researcher of this project, student health information about the importance of sleep is lacking on most university campuses. "Sleep problems are not systematically addressed in the same way that alcohol or drug abuse problems are," she said. "For colleges and universities, addressing sleep problems early in a student's academic career can have a major benefit."

Modified from Prichard & Hartmann (2014)

Part 2: Write an essay about the following topic.

Some people may think that sleep problems are individual matters and that college students should find personal solutions if they have this problem. Other people may think that St. Cloud State University (SCSU) should develop and offer resources to help its students with sleep problems because, as the research shows, they can affect academic performance. A debate like this can often become a debate about money because everything costs money. **Do you think that SCSU should spend some money on developing resources for sleep problems, or do you think that this expense is unnecessary?** Explain your opinion logically, and support it in detail.

Instructions for writing the essay

You will have 50 minutes to write. There is no required length for the essay, though most are about 250 words (1-2 pages). You will be graded on five criteria, totaling 100 points: content and development (20 points), organization (20 points), vocabulary (25 points), language use (grammar) (30 points), and mechanics (spelling, punctuation, capitalization, paragraphing) (5 points). Be sure to plan your essay. You may use an extra piece of paper.

Remember that you are writing for an American audience that may know very little about your home culture.

Appendix B: EAP Composition Profile

EAP COMPOSITION PROFILE – EPT Version

Student ID # ( )

CONTENT	**VERY GOOD:** One idea expressed, substantive, thorough, development of thesis, relevant to assigned topic.	19 / 20	GOOD
	GOOD: One idea expressed, adequate range, limited development of thesis, mostly relevant to topic but lacks detail.	17 / 18	
	POOR: Non-specific statement, little substance, inadequate development of topic.	13 / 14 / 15	POOR
	VERY POOR: No development, non-substantive, not pertinent, OR not enough to evaluate.	5 / 6 / 7 / 8 / 9 / 10 / 11	
ORGANIZATION	**VERY GOOD:** Fluent expression, ideas clearly stated/supported, succinct, well-organized, logical sequencing, cohesive.	19 / 20	GOOD
	GOOD: Somewhat choppy, loosely organized but main ideas stand out, logical but incomplete sequencing.	17 / 18	
	POOR: Non-fluent, ideas confused or disconnected, lacks logical sequencing and development.	13 / 14 / 15	POOR
	VERY POOR: Does not communicate, no organization, OR not enough to evaluate.	5 / 6 / 7 / 8 / 9 / 10 / 11	
VOCABULARY	**VERY GOOD:** Sophisticated range, effective word/idiom choice and usage, word form mastery, appropriate register.	24 / 25	GOOD
	GOOD: Adequate range, occasional errors of word/idiom form/choice/usage, but meaning not obscured.	22 / 23	
	POOR: Limited range, frequent errors of word/idiom form/choice/usage, meaning confused or obscured.	16 / 17 / 18	POOR
	VERY POOR: Essentially translation, little knowledge of English vocabulary, idioms, word form, OR not enough to evaluate.	10 / 11 / 12 / 13 / 14	
LANGUAGE USE	**VERY GOOD:** Effective complex constructions, few errors (agreement, tense, number, word order/function, articles, pronouns, prepositions).	27 / 28 / 29 / 30	GOOD
	GOOD: Effective but simple constructions, minor problems in complex constructions, several errors (agreement, tense, number, word order/function, articles, pronouns, prepositions), but meaning seldom obscured.	25 / 26	
	POOR: Major problems in simple/complex constructions, minor problem in complex constructions, several errors (agreement, tense, number, word order/function, articles, pronouns, prepositions, and/or fragments, run-ons, deletions), meaning confused or absurd.	19 / 20 / 21 / 22	POOR
	VERY POOR: Virtually no mastery of sentence construction rules, dominated by errors, does not communicate, OR not enough to evaluate.	10 / 11/ 12 / 13 / 14 / 15 / 16 / 17	
MECHANICS	**VERY GOOD:** Demonstrates mastery of conventions, few errors (spelling, punctuation, capitalization, paragraphing).	5	GOOD
	GOOD: Occasional errors (spelling, punctuation, capitalization, paragraphing) but meaning not obscured.	4	
	POOR: Frequent errors (spelling, punctuation, capitalization, paragraphing), meaning confused or obscured.	2	POOR
	VERY POOR: No mastery of conventions, dominated by errors (spelling, punctuation, capitalization, paragraphing), handwriting illegible, OR not enough to evaluate.	1	
PLACEMENT COMMENTS:		**TOTAL SCORE ( )**	
	NOT ENOUGH to Evaluate ( )	**READER INITIALS ( )**	

Adapted from Jacobs et al. (1981)
Last Updated for SCSU EAP 5/1/2017

Appendix C: Corpus Analysis Terminology

Brief Introduction to Corpus Analysis

Corpus analysis is a research method developed around the study of 'real world' language (Timmis, 2015). Researchers gather and study samples of authentic language use. Corpora are collections of samples, generally saved in a digital format, though it should be noted that analysis of authentic production existed before computers. Lindquist (2009, p. 2) describes how Danish grammarian Otto Jespersen filled thousands of shoeboxes with bits of paper on which he had recorded useful quotes to use as examples in his grammar reference book. Now thousands of shoeboxes worth of excerpts can be neatly stored on a computer. Corpus analysis consists of discovering interesting linguistic phenomenon in a corpus. The possibilities for corpus analysis have exploded in recent decades, thanks to advances in computer technology. Improved computing power has allowed for compilation and quick analysis of huge corpora. Two examples of contemporary corpora are the COCA and BNC corpora. The Corpus of Contemporary American English, COCA, is publicly available online. It is designed to provide a representative picture of American English (Davies, 2008). It currently consists of more than 450 million words, from five subcorpus genres: spoken, fiction, popular magazines, newspapers, and academic journals. The British National Corpus (BNC Consortium, 2007), also publicly available online, is a 100 million word corpus of written and spoken language, designed to represent contemporary British English.

Corpus Analysis Methodology

Corpus analysis involves noticing interesting linguistic phenomenon in a corpus. Attributes such as frequency and collocation are used to describe the language. Computers are helpful allies because they can store and process vast quantities of data, counting and sorting

very quickly. Lindquist (2009, p. 5) explains that corpus data are generally presented as frequency figures or concordances, or both. Frequency counts are just that, counts of instances of a linguistic feature. Microsoft Word can yield frequency counts of words and phrases in a single file. On the COCA web site, a researcher can find out which words occur most frequently in the entire corpus (or in a subcorpus). The words can be sorted alphabetically or in order of frequency. He or she can also request a count of a specific word or phrase. In this context 'tokens' are occurrences of a word. Lemmas are occurrences of any member of a group containing all the inflected forms of a word--for example 'kick, kicks, kicked, kicking.' In this short excerpt, there are four instances of the lemma 'KICK' and one instance each of the 4 tokens. Some programs provide 'type' counts, which include each word only once—thus yielding a count of unique words contained in a text. This measure can indicate richness of vocabulary.

Frequency counts can also be used in further calculations. Relative frequency is a percentage, the proportion of a raw frequency figure to the total number of tokens in a corpus. Percentage figures allow for comparisons. Lindquist stresses that the absolute values must always be provided along with percentage, so the reader knows the sample size and can judge if it is large enough to be significant (2009, pp. 41-42).

A concordance is a view of all the contexts of a word or phrase searched in a corpus. A concordancer is a program that can create such a view for the researcher—though concordancers generally also provide frequency information. Computer concordances generally display the search word or phrase centered in a single line of context. This layout is called 'keyword in context,' or 'KWIC.' In most programs the user can click the line to open up a fuller view of the context. Collocations are partner words that show up together more frequently than chance would predict. In a concordancer frequent collocations can be searched and displayed,

alphabetically or by frequency. Prior to computers, scholars painstakingly compiled concordance data for important texts like the Bible and the works of Shakespeare (Lindquist, 2009). With computers, the process is much easier.

Searching for and counting words in a text can be fairly straightforward, but many sophisticated searches require part-of-speech and other grammatical information. This brings us to tagging. Corpora are generally tagged in various ways (Timmis, 2015, pp. 16-17). Tagging is also referred to as markup or annotation. Descriptive data is entered in a text, in a standardized format that corpus analysis programs recognize. Metadata tags consist of information about the file--demographic data, genre, etc. Users can perform searches limited to texts meeting certain metadata criteria. Tags can also be interspersed in a text, to label text features like part-of-speech. Native speaker corpora are often tagged with part-of-speech tags, so users can search and count based on part of speech. Professional corpus projects like the COCA have been tagged already. Custom-made corpora must be tagged by the researcher. Software with an interface designed to facilitate this process can be used. Automatic linguistic analysis is an option, though researchers are advised to review the results carefully (Lindquist, 2009, p. 45). Automatic tagging software uses algorithms to label words with their parts of speech. Another important tag type is error tags, which were used in this study. Researchers can mark errors with codes, for subsequent analysis.

A final note on methodology relates to the orientation of the researcher. Lindquist (2009, p. 10 & pp. 25-26) explains how researchers can approach corpus analysis in three ways. With corpus driven research, the researcher has no preconceived notions, arriving at conclusions through an inductive process. With corpus-based research, corpus analysis is used to test hypotheses the researcher has already formed. Corpus-aided research uses corpora merely to generate authentic examples for illustrative purposes.

Appendix D: Error Taxonomy

The error taxonomy used in this study was based on that described by Janet Lane and Ellen Lange (1999) in their book *Writing Clearly: An Editing Guide.* There are 15 categories, for 15 error types typical of ESL student writing. The 15 types are divided into global, or more serious, and local, or less serious errors. This distinction derives from Marina Burt and Carol Kiparsky's (1972) *The Gooficon: A Repair Manual for English*, a comprehensive text that provides a much more detailed ESL error classification scheme. Global errors, such as sentence structure, are generally errors that impede understanding. Local errors, such as article errors, may be irritating but are less serious in that they do not interfere with understanding. They are often confined to a word or small chunk of a sentence, while global errors may affect larger sections of text. Lane and Lange also provided a list of miscellaneous other errors, which they did not believe to be typical of ESL writing. Therefore, these various errors did not receive their own chapter in the book. Each of the 15 categories is further subdivided into smaller categories.

As the data analysis for this study was conducted, some errors were found which did not fit clearly into any of Lane and Lange categories. In other cases distinguishing between very closely related categories proved to be impractical, and categories were combined. Some changes were also made based on the grammatical categories established in *Applied English syntax: Foundations for Word, Phrase, and Sentence Analysis* (Koffi, 2015). These arose primarily with regard to verbs. A verb subcategorization category was established to group together related errors that in the original taxonomy were dispersed over several categories. The original Lane and Lange categories are provided in Figure. Information about the modified taxonomy used in this study follows. Examples are drawn either from Lane and Lange or from the study data set.

ESL Grading Symbols

GLOBAL ERRORS—more serious errors

(These errors usually impede understanding.)

SYMBOL	EXPLANATION	PAGE*
vt	incorrect verb tense	4
vf	verb incorrectly formed	29
modal	incorrect use or formation of a modal	50
cond	incorrect use or formation of conditional sentence	69
pass	incorrect use or formation of passive voice	88
cl	incorrect use or formation of a dependent clause	104
ss	incorrect sentence structure	131
wo	incorrect or awkward word order	148
conn	incorrect or missing connecting word(s)	165

LOCAL ERRORS—less serious errors

(These errors, while distracting, most often do not impede understanding.)

SYMBOL	EXPLANATION	PAGE*
sv	incorrect subject-verb agreement	184
art	incorrect or missing article	198
s/pl	problem with the singular or plural of a noun	213
wc	incorrect word choice	226
wf	incorrect word form	238
prep	incorrect use of a preposition	253

***Note:** The pages listed in the right-hand column refer to pages in *Writing Clearly: An Editing Guide,* Second Edition, where a full explanation of each error is given.

ESL Grading Symbols

OTHER ERRORS

SYMBOL	EXPLANATION
cap	capitalization—capital letter needed
coh	coherence—one idea does not lead to the next
cs	comma splice—two independent clauses joined by a comma
dm	dangling modifier—phrase or clause with no word(s) to modify in a sentence
frag	fragment—incomplete sentence
lc	lower case—word(s) incorrectly capitalized
nonidiom	nonidiomatic—not expressed this way in English
p	punctuation—punctuation incorrect or missing
pro ref **pro agree**	pronoun reference/agreement—pronoun reference unclear or agreement incorrect
ro	run-on—two independent clauses joined with no punctuation
sp	spelling error—word incorrectly spelled
unclear	unclear—message not clear

Error Categories Used in Current Study	
1-verb tense/aspect ***vt***	**vt1, vt2-Wrong verb tense/aspect out of the 12 possible (Koffi, 2015, p. 181).** These errors involve using the wrong tense/aspect form of the verb. Sometimes a time phrase indicates the intended tense/aspect; other times the intended meaning can be sensed in other ways. For a situation where the writer switched verb tense inappropriately, only the first time writer switched was marked. Then if they continued writing in the new verb tense subsequent verbs were not marked. However if they switched back again later, this location was marked again. Some examples of vt1 are: "Alex <u>has sent</u> out several job applications last month." "I <u>was</u> in the United States since 1985." "My muscles are sore. I should not <u>exercise</u> so hard yesterday." "Many students <u>participate</u> in the graduation ceremony next month."

<table>
<tr><td rowspan="5">2-verb form
vf</td><td colspan="2">vf1, vf2-Main verb, wrong form, and past participle in VP, wrong form. This includes “ed” regularized to irregular past tense verbs, and confusion over participle and preterite forms. For example:
“My comment hurted her feelings.”
“She flied to Los Angeles.”
“The choir had already sang their last song.” (sung)</td></tr>
<tr><td colspan="2">vf4-Ill-formed stative passive.
A Main verb was used, instead of be + past participle. This is a form of the passive voice called stative passive.
“I confuse about what you just said.” (if main be verb is missing, error goes under SS#1. “I confused.”)
“The store is close on Sundays.”</td></tr>
<tr><td colspan="2">vf4-Aux vb and main vb are mismatched
Auxiliary verb and main verb don't match, in form or choice of auxiliary. The auxiliary may also be extraneous.
Included here are extra “s” and “ed” added to main verb—the base form is used with auxiliary verbs. Also included are cases like “students are suffer” (failure to form progressive). These errors involve auxiliaries “be”, “do”, and “have”. Modal errors have their own category.

“The employment office does accepts applications all year.” (don’t need s)
“He did not studied enough.”
“Whites were expected
blacks to be mindless.</td></tr>
<tr><td colspan="2">vf6-Infinitive wrong form
“Mike forgets to checks his mail.”
“It was hard for her to admitted her problem.”</td></tr>
<tr><td colspan="2">missing auxiliary
“She coming soon.”
Cases of missing do in questions and negatives go under SS.</td></tr>
<tr><td>Verb Subcategorization
See Koffi, chapters 8 and 13</td><td>transitivity (issue with verb’s complement)</td><td>intransitive verb has an object
“This situation occurs some health problems in a student's body.”
(can’t be fixed with a preposition)</td></tr>
</table>

		obligatory transitive verb missing object "The university supports (them) by giving an initial push."
		Ditransitive issue A rule of double object construction or dative construction is violated. "Matt bought for me a present." "The boss gave to Jenna a special assignment." "SCSU should arrange them a job."
	verb+prep	**preposition is missing** "I will have to study to compensate the time I lost yesterday." (*for* needed) Also relates to transitivity—verbs that need a preposition between themselves and a noun, or oblique object.
		preposition is not needed "In my paper, I emphasized about the need for smaller classes."
		wrong preposition "Parents spend a lot of money in their children's education."
		phrasal verb Particle that is part of phrasal verb is wrong or missing: "These schedules force you to sleep when your body is telling you to wake."
	Verbal after main verb is wrong form Lane and Lange (1999) talk about how patterns of verbals following given verbs are not rule-based (p. 37). Koffi talks about verbals as untensed/non-finite subordinate clauses (p. 390). The verbal can be an infinitive, a present participle, a past participle, or a base form. "He decided going to the library tonight." "Matthew avoided to discuss that issue." "The bystander helped me pushed my car to the side of the road."	
3-Modal Verb	**modal1-wrong modal for meaning** Also used if modal was used instead of have-be-do. Include cases of	

modal	needing the modal to express a hypothetical mood. "I must have gone to my teacher's office, but I didn't have time."
	modal2-wrong modal form The parts are there, modal and any other auxiliary and main verb, but form is wrong. "She might studies tonight." "She might to study tonight." "You must has the determination to succeed."
	Missing modal Modal is needed. Can be used when a modal pattern is established and a case breaks from it. If a modal verb is missing from a conditional clause, put under **conditional** category. If "will" is missing, to express future tense, put under **verb tense**. "It would probably be a pretext for not attending the classes. It helps students to have a good excuse."
	Extraneous modal "They don't care whether other people should get enough sleep."
5-Passive Voice ***pass***	**pass1-passive voice wrong form** The passive voice has been incorrectly formed, such as lacking past participle or "be" verb. "Some problems can be fix easily." "Your grades will sent next week."
	pass2-passive voice needed Passive voice is needed instead of active voice. "A new air conditioner will install next week." (it can't install itself)
	pass3-verb can't be passive Intransitive verbs can't be passive. "A power outage was occurred last month." "Male dominance still is existed in some countries."
6-Relative, Adverbial, and Noun Clause Errors ***rel cl, adv cl, n cl*** Because conditionals are also considered subordinate clauses (Koffi, p. 408), this category was moved	

here. (Note: Due to space limitations, this section is formatted differently. It is the only error category that branches 3 times.)	
1-Relative Clause ***rel cl***	**rel cl 1-missing relative clause** The connector that would create a relative clause structure is missing. "Alienation is noticeable among people come from different cultural backgrounds."
	rel cl 2-wrong form, relative clause Wrong relative pronoun, or wrong form of it: "Cases have been found that even good students resort to cheating." (in which, where) "I just met the people who their house I am renting this summer." (whose house)
	rel cl 3-missing preposition in relative clause "I got into a situation which it was hard to make a decision." "The person whom I need to return the key is not home."
	rel cl 4-repetition in relative clause Noun or pronoun is repeated: "The people whom I have met them are very friendly."
	other miscellaneous relative clause errors
2-Adverbial Clause ***adv cl***	**adv cl 1-redundancy** redundancy—both subordinating and coordinating conjunctions: "Even though my mother is trying to learn English, but she finds studying it difficult."
	adv cl 2-conjunction has wrong meaning "We have purchased one of those pens while we like them."
	adv cl 3-conjunction in wrong clause "He broke the window because he had to pay for it."
	adv cl 4-prep phrase used instead of conjunction "Pierre could not travel to Mexico because of his Visa had expired."
	adv cl 5-adverb used as conjunction

	"Especially my aunt likes hamburgers, we always buy one for her."	
	adv cl 6-adverbial cl frag "While the store was still open. Harriet bought a soda."	
	adv cl 8-future tense used Future tense used in adverbial clause of time. Future can only be used in the independent clause. "When we will get home, we will call you."	
	Conditional Clause Errors ***cond***	**cond1,2,4,5-verb issues** Use when there is a mismatch between a main verb or auxiliary or a missing aux, and when a conditional pattern is broken. Later sentence or clause should continue with a conditional pattern but doesn't. Also use when verbs do not correctly distinguish factual versus hypothetical conditional. "If I study hard for my exam, I would pass it." "I would have gotten to class on time if the bus did not come late." "If I had time I rather go to the beach." "If our teacher gave us a test today, she would see we don't know the material. We will probably all fail." "If I am more organized, I will have a separate folder for each class."
		cond3-missing conditional A conditional sentence is not used where one is needed. Sentence is missing *if* or other conditional marker (Lane & Lange, p. 80; Koffi, p. 409). "I know about the reading homework. I would have done it." (If I had known about the reading assignment (condition), I would have done it (result). "Especially Peter does not have a new job before quitting his old job, he might have a hard time finding a job in the future."
	other adverbial clause errors For example, missing a conjunction.	

3-Noun Clause ***n cl*** In object position, *that* can be omitted. Koffi puts *that* noun clauses with adverbial clauses (p. 388), h/wh noun clauses with relative clauses (p. 449). Because they are a common topic in grammar texts, this category is preserved here. Be cautious of *that* as relative pronoun, vs *that* as subordinating conjunction.	**n cl 1,2-noun clause is missing** *Noun clause has not been used as subject of sentence, or adjective complement:* "Famous athletes and entertainers earn millions of dollars a year seems unfair." Should be "That famous athletes and entertainers earn millions of dollars a year seems unfair." or "It seems unfair that famous athletes and entertainers earn millions of dollars a year." *Noun phrase was not used as object of preposition:* "Helen did not agree with they said." Basically, missing *that* or the *h* or *wh* word. *Reported request, missing noun clause:* "His friend recommended John to take the course." (that John take) The subjunctive form of the verb (base form) has not been used in a noun clause that expresses a demand, recommendation, requirement, advice, or expectation.
	n cl 3,4-phrase is needed A noun clause was used after a main verb, a phrasal verb, or an adjective w/prep, and a phrase is needed: "we have to put up with (the fact) that his apt is cold." "We are concerned about that there will be a food shortage." Should be "We are concerned about the fact that there will be a food shortage."
	n cl 7-reported question A noun clause that is a reported question is incorrectly formed, due to wrong connecting word or wrong word order: "The researcher hopes to discover that the function of this chemical is." "The researcher hopes to discover what is the function of this chemical."
	n cl 9-noun clause fragment "Pat told his boss. That the report would be late."
	Wrong connector word "We talked about <u>that if</u> (if, whether) sleep really affects the performance of students…"
	other miscellaneous noun clause errors

7-Sentence Structure Errors ***ss*** All clauses need subject and verb except for imperative cases, where 'you' is implied.	
	ss1-Missing <u>main</u> be verb If this a passive voice problem, put under PASS. Missing other auxiliary verb, put under VF. "There many majors to choose from."
	missing main verb Missing other main verb (aside from "be") in sentence or coordinate clause.
	ss2-Missing subject or key part Subject of sentence or clause is missing. "When we meet new people and start living in a new place are scary." *Adverb clause can't be subject.* "When realized his son was missing class, Mr. Simon was angry." "Is an interesting class in which I am learning a lot." *This needs dummy it.* "In my view, (spending) a school's money on someone's personal life is just a waste." (missing core of subject)
	ss3-subject repeated "My roommate when he is not busy with school, he works part time." This can be ok, for emphasis. Fronting, such as: "Fong and I, we grew up in the same neighborhood."
	ss4-missing words, needed for grammar Missing content words, except for missing "be" or other main verb, missing subject, see above. Missing connectors are in CONN, prepositions in PREP, articles in ART, pronouns in Other. This category is for missing adverbs, careless errors, places where context makes it clear another word is needed.
	ss5-mixed sentence structure Two clauses or phrases have been used that do not fit grammatically. Compound/complex sentences gone awry. Sentence starts out one way, then veers off into another type of construction. "By using Facebook can help students keep in touch with their teacher." Often involves some extra function words. Convoluted structures, trying to sound academic.

<table>
<tr><td></td><td colspan="2"></td></tr>
<tr><td></td><td colspan="2">ss6-parallel structure
non-parallel items joined by and, but, or, nor yet (Lane and Lange, p. 140).
“My advisor told me to check out a journal from the library and that reading it as soon as possible was necessary.”
If the parallel issue are fixed, and the item is still wrong, may need two tags. One for the error, another for not matching counterparts in list.</td></tr>
<tr><td></td><td>ss7-sentence boundary
A Fragment or run-on.
When a fragment belongs with sentence before or after, select punctuation and fix. Otherwise select whole fragment. Runon, select space and correct with “ .” or “;” .
“On the rafting trip, please bring clothes that will dry quickly and keep you warm polyester and wool are the best.”
Comma splices are run-ons too.
There is also a noun clause fragment category, and adverbial clause fragment category, for fragments embedded in these contexts.</td><td>fragment

Run-on</td></tr>
<tr><td></td><td colspan="2">questions
“What you think?”</td></tr>
<tr><td></td><td colspan="2">negatives
Incorrectly formed negative, whether due to missing auxiliary, or “no” instead of “not.”
“He no want food.”</td></tr>
<tr><td></td><td colspan="2">Other repetition
“Lack of sleep can also lead to harmful results too.” (adverbs)</td></tr>
<tr><td></td><td>restructure
Phrases/clauses where you can derive the meaning, but major restructuring is needed, involving more than one change. Might need a word change, which might affect grammar. Order may also be screwy.</td><td>Short
2 or 3 words, in both original and correction</td></tr>
</table>

<table>
<tr><td rowspan="4"></td><td rowspan="2">“She did the suicidal attempt.”
(She made a suicide attempt, attempted suicide, tried to commit suicide.)
Also use where a phrase is grammatically correct but should be replaced by a word or different words.
“It helps students do their performance well.” (perform)
These errors generally have several possible corrections, so it’s hard to classify them. There is a little overlap with word choice.</td><td>Long
Over 3 words, in original or correction</td></tr>
<tr><td>Expression mix-up
Person is confusing possibilities, mixes them up. Double mark cases for any other errors present.
“Jack is seeking for the answer on the internet.”
(seeking, looking for)</td></tr>
<tr><td colspan="2">incoherent
Serious error, totally incoherent sentence, can’t be at all certain what writer meant. Possibly multiple errors.
“Beside my faculty adviser, I didn't anyone as much as.”</td></tr>
<tr><td colspan="2">extra word
Extraneous content word, if error does not reasonably go under repetition.</td></tr>
<tr><td rowspan="3">8-Word Order Errors
wo
For questions and negative statements, see SS. These errors often involve a combination of errors, not just WO.</td><td colspan="2">wo2-pronoun in phrasal verb
The pronoun in a phrasal or multi-word verb is misplaced. This is not a rule-based phenomenon--students need to memorize or look up.
“I don't like these posters. I decided to throw out them.”</td></tr>
<tr><td colspan="2">wo3-adverb w/adjective
Adverb that modifies adjective wrongly placed.
“The mayor had become aware more of his position.”</td></tr>
<tr><td colspan="2">wo4-adjective w/noun
“The notebook blue is mine.”</td></tr>
</table>

	wo6,7-adverb and adverbial phrase There are some rules (Land and Lange, p. 157). "Poorly, Bob did the job." "I went yesterday to the movies." Also, adverbial phrases or clauses at end of sentence are in wrong order. "We left the movie because it was boring before it was over."
	other word order "As only academics are not important in the present scenario." *For emphasis:* "Then only they will be proud." (Only then will they be proud.)
9-Connecting Word Errors ***conn***	**conn1-missing connector** Missing a coordinating conjunction, or transitional word/phrase: "I did not study; I got an A." *Grammar here is ok, but meaning unclear* "I frequently read magazines, go to the movies in my free time." *That is sort of a run-on, but more clearly it is missing connector.*
	conn2-connector meaning Connecting word/phrase with wrong meaning joins independent clauses: "I was nervous about writing an essay in just one hour; moreover, I conquered my fear and finished." Same error with subordinate clauses can be found under adverbial clauses, and for prepositions as connectors look in preposition categories.
	correlative conjunction "Not only the rating will be better, the students who will be writing a review about SCSU will be positive." (Not only will the rating be better, but the students who will be writing a review about SCSU will be positive.)
	connector form Rhetorical connecting/transition phrase is malformed: "In sum up, I must say…" Some overlap with idioms, but choice was made to treat these separately due to importance in academic writing.

10-subject Verb Agreement Errors ***sv***	**sv1-Final "s" missing** Final "s" or "es" left off of 3rd person singular in present tense. "Each spring the doctor tell my father to take a vacation."
	sv2-agreement, words in btw Subject and verb do not agree when words come in between. "Two members of the exploration party has been commended for bravery."
	sv3-relative clause agreement Verb in relative clause does not agree with the noun clause modifies. "Every person should try to choose a place to live that suit his or her needs."
	sv4-gerund, infinitive, noun clause subjects Subject and verb do not agree when a gerund, infinitive, or noun clause is subject (Land & Lange, p. 188). "Being a workaholic have many disadvantages."
	sv5-"there…" sentences Subject and verb do not agree when clause or sentence starts with "there is/are", "there was/were", "there has been/have been". "There are a new six-screen movie theater downtown."
	sv6- "one of the" etc. Agreement issues with quantifying words and phrases, see Lane & Lange, p. 191. "One of the students play the flute." "X of the x," "some", "a number of", "the number of", "none", "everyone", "nobody"
	other miscellaneous SV Other subject/verb agreement errors--compound nouns, uncountable nouns, weird nouns that end in s but are not plural, correlative conjunctions, be and have, etc. "Kennedy and Roosevelt has both been presidents of the US." "The money are in the wallet." "Economics are a very interesting subject."

11-Article Errors ***art***	**art1-article needed** Zero article used when “a” or “the” is needed: “I paid my fine at library.”
	art2-article misuse in a quantity phrase “The” is missing after an “of” phrase showing quantity: “All of textbooks for this class have been sold.” “One of the”, “most of the”, “some of the”, “half of the” etc. Other article misuse in quantity phrases, such as: “I would like to state few supporting reasons” “They feel lot more stress”
	art3-“a” used when no article is needed “A good friend gave an advice.” “My uncle has an obvious reasons.” Issue with noncount and plural nouns.
	art4-“a/the” mixup “A” used for “the” and vice versa. “My cousin lived the happy life as a doctor.” “My lab partner has a books you wanted.”
	art5-article versus other determiners “A” or “the” used instead of another determiner, or vice versa. “Whenever I go to the library, I remember that I need the library card.” “According to this short background text...” *Context requires “the”*
	“the” not needed “International students have <u>the</u> sleeping problems because of the time difference.”
	other miscellaneous article errors Other miscellaneous article errors—“a/an” mixup, etc.
12-singular/plural errors ***s/pl***	**s/pl1-countable noun number** A countable noun is singular when it should be plural, or plural when it should be singular. "I missed 2 problem on my calculus exam." Use this for number agreement problems like “many student...”

	s/pl2-uncountable noun is plural "You should get advices about your decision."
	s/pl3-demonstrative agreement DON'T USE this, unless the noun is clearly in correct number. Most of these errors belong under spl1. "This books are for the other class."
	s/pl4-adjective is plural "The campus has reds bricks buildings." English doesn't match adjective to noun.
	s/pl6,7- "of" phrase Countable noun in idiomatic "of" phrase is not plural when it should be, or vice versa. "One of the oldest building on campus is North Hall." "that kind of things" "those kind of people"
	s/pl8-irregular plural errors "Five womans signed up for the auto mechanics class."
	other s/pl errors Use for any cases that seem a little more convoluted than just carelessly leaving off an "s".
13-Word Choice Errors ***wc***	**wc1-wrong content word used** "My poor English bounds our friendship at a superficial level." Function words are covered in other areas--article, connector, preposition, pronoun. **Also use for cases where v**erb does not fit subject and/or predicate, affecting meaning. AKA a "predication error": "The rules expect that the library books will be returned on time." "Reiko's mother suffered a struggle to balance work and family." *struggles can't be suffered* "Reading collaborated in opening Andrew's mind to a new world." *Reading doesn't collaborate* Ask yourself if verb can do the action required by subject or predicate.

	Note, if passive voice is needed use PASS. Also use if adjective doesn't work—weird semantics. "So, a single person can or may ignore this fact however the educated and well-reputated organisation like SCSU can't ignore this." *An institution can't be educated.*
	wc2-word doesn't exist "Being a student is literarily a full time job."
	wc4-word sounds similar Problem for ear learners. Resolves with extensive reading. This is a judgement call, whether to use wc1 or wc4. "Adults have complained about teenagers for decays."
	wc6-register "We are gonna solve it together." This is a rather subjective category. Used only in egregious cases.
14-Word Form Errors ***wf***	**wf1-wrong part of speech** Word choice is good, but wrong part of speech: "Her attitude is a reflect of the views of society."
	wf2-wrong word part There are several options of suffix for every part of speech...must be memorized (Lane & Lange, pp. 243-244.) "I applied to the School of Financement."
	wf3-comparative error Wrong comparative adjective or adverb form used. "She has been more busier than usual." Put phrases involving comparatives here too….because it makes sense to group together.
	wf4-participle adjective mixup (ed, ing) "The essay was interested."
	Base verb form used when gerund or infinitive is needed, or other mixup of these forms

	Verbal form in cases such as after an adjective, or object of preposition, or subject. See Lane & Lange pp. 36 and 41, and Koffi p. 403. "By study, we can learn these formulas." "It is easy communicate with him." *Following Koffi, this would be a subordinate clause under an adjective (p. 402).* "Read is one of her hobbies." (Could be "To read" or "Reading") If confusion is with something like sleep/sleeping that are both nouns, put error in word part category.
15-Preposition Errors ***prep*** For cases involving verb subcategorization, put there.	**prep1-wrong preposition before or after noun** Wrong preposition in a prepositional phrase or idiom "I live in Anderson Street." "She will meet us for coffee in the night." "My mother worked, so the responsibility of the housework was mine."
	prep2-wrong preposition after adjective (Koffi, p. 329) "She is afraid to the dark."
	missing preposition missing prepositions "…their body won't have had enough (of) the rest that is required…"
	extraneous preposition Not needed "There are a lot of people having financial dificulties at these days."
	awkward prepositional phrase For example, should use a noun as an adjective rather than a prepositional phrase. "Their debt for students will be lower." (Their student debt will be lower.) For awkward possessive "of" constructions, classify under possessives.
Other Errors ***Errors appearing in extra chart on page xix in Lane and Lange, or not covered in that text***	**Idioms** Idiom/expression errors. Person perhaps translated an idiom directly from L1, or botched an English idiom. "...communication with families and friends." This category is a little subjective. See Lane and Lange, p. 266. Formulaic academic transitions are categorized under connectors.

	Pronouns put possessive pronouns in possessive category.	**pronoun agreement problem** pro agree—gender , number, person, case Pronoun reference is wrong--like using she for a man, or "He knew what kind of character was him." *need subject pronoun* or "He learned about the possibilities of life for him after reading." *Needs reflexive pronoun* The wrong pronoun was chosen to represent noun.
		pronoun reference problem pro ref Not clear who/what pronoun refers to, possibly there is no antecedent when one is needed.
		pronoun is needed Sentence with repeated noun such as: "I like UCD because UCD is located in a quiet college town." Also use when a noun was given, but sentence needs a pronoun grammatically again soon thereafter. “A committee has to be set up by SCSU to understand the sleep problems of students and (they) should be addressed in a subtle manner.”
		switch person Switch person inappropriately.
		Other pronoun form is wrong, etc. “All humans are controled by theirself…”
	Possessives Possessive adjectives, pronouns, and nouns. Also called genitive, more accurate. Actual possession is not necessarily involved.	**Possessive missing** "A good night sleep is 7.8 hours."
		“of” construction Possessive “of” used when another construction would work much better. “I read a newspaper of my university.”

		apostrophe Missing or misplaced punctuation apostrophe.
		agreement “Colleges and universities that are interested in the success of its students…”
	Punctuation that affects <u>meaning</u> Punctuation is not the focus of this study, and not all errors are marked. Put punctuation **not** covered elsewhere, that affects meaning, here. Use when commas are needed to clarify meaning, set comment phrases apart. "Now he could look at the boss feeling closer to him because he knew exactly what type of character was him." (Now he could look at the boss, feeling closer to him, because he knew exactly what type of character was him.) Don’t use this category for run-ons, which go under SS.	