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**A content validity analysis of the University of Texas-Pan
American English 1320 grammar and usage exam**

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A CONTENT VALIDITY ANALYSIS OF
THE UNIVERSITY OF TEXAS-PAN AMERICAN
ENGLISH 1320 GRAMMAR AND USAGE EXAM

by

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A Thesis

Presented to the
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In Partial Fulfillment
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The University of Texas-Pan American
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A CONTENT VALIDITY ANALYSIS OF
THE UNIVERSITY OF TEXAS-PAN AMERICAN
ENGLISH 1320 GRAMMAR AND USAGE EXAM

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Cynthia E. Elder
1992

Dedication

This study is dedicated to my English 1320 students who not only helped me realize that teaching is my true vocation, but also (although they did not know it) impressed upon me the need for research in testing. Especially, this is dedicated to students like S. C. who, after much hard work and occasional setbacks, finally succeeded and remarked to me in wonder, "Hey. Maybe I really can do this." Yes, you can.

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I am indebted to many people for help with this study. First of all, English 1301 instructors Edye Burford, Carole Hlubek, Chieko Hoki, Peter White, and Tom West provided me with the final exam essays analyzed in this study. In addition to supplying data and feedback on my perceptions of student errors, these instructors and others, especially the Teaching Assistants in the English Department, provided me with the impetus and support to complete this project.

Along with much encouragement and frequent queries as to how the research was going, Mr. Bud Frankenberger, the coordinator of the English 1320 program, supplied me with the direction for this study and with invaluable information without which I could not have completed it.

The other members of my committee each contributed his or her expertise to my endeavor. Dr. Pamela Anderson-Mejias provided me with suggestions on structure and writing style. Dr. Edward Heckler, who decided I was going to write a thesis before I knew I would, gave me constant encouragement throughout the entire masters degree program and found every single little (and not so little) grammatical and mechanical error in my thesis.

I am especially indebted to my major advisor, Dr. Pamela McCurdy, for her invaluable professional advice and guidance. With her help, I learned not only what appear here as the results of my research, but also the process of doing research and writing about it. She also taught me that, yes, I really

can do this.

I am grateful, also to eight of my ten cats for not completely destroying my keyboard and for helping me keep things in perspective.

Finally, I am indebted to Albert Camus (1948: 230) who wrote:

...all our troubles spring from our failure to use plain, clean cut language. So I resolved always to speak---and to act---quite clearly, as this was the only way of setting myself on the right track.

ABSTRACT
A CONTENT VALIDITY ANALYSIS OF
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ENGLISH 1320 GRAMMAR AND USAGE EXAM

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1992

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This study examines the degree of content validity of the grammar and usage exam administered to The University of Texas-Pan American's developmental writing classes (English 1320). Final exam essays from the freshman composition course (English 1301) were divided into groups according to their scores and examined for the occurrence of adjective agreement, apostrophe, pronoun usage, punctuation of clause, sentence structure, subject-verb agreement, and tense usage errors, which are tested on the exam. An Analysis of Variance was then calculated for each error type; none of the error types proved statistically significant at the .05 level. The students within each group did not make a great number of errors, and all groups made largely the same number and types of errors. Thus, the English 1320 grammar and usage exam does not exhibit an acceptable degree of content validity.

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CHAPTER I INTRODUCTION

When a university has an open admissions policy, certain problems inevitably result. Because a wide spectrum of students, including those not academically prepared for college, are accepted for matriculation at an open admissions school, many entering (and sometimes continuing) students are still in need of developing academic skills that will permit them to have a chance to succeed in the higher educational setting.

For this reason, English 1320, a developmental writing class, was instituted by The University of Texas-Pan American in 1988. The goals of the class are to prepare the student for the Texas Academic Skills Program examination in writing and to augment the student's writing skills in preparation for the freshman composition course, English 1301. The emphases of the course content in English 1320 are the writing process and the grammar and usage conventions of standard written English. Following instruction in these areas, the student needs, of course, to be evaluated as to her readiness to continue in regular college-level freshman composition courses.

To meet this need, the English Department in the fall of 1988 established the department-wide grammar and usage examination presently in use at The University of Texas-Pan American. A multiple-choice format was used for this exam in

order to overcome the difficulties associated with grading several hundred individual handwritten test responses several times a semester. Following the question formats employed by the National Testing Institute and the College Board Examinations, the coordinator of the English 1320 courses used a computer program to generate a data bank of questions designed to test certain language usage items important to proficiency in college-level composition.

Using observation of problems encountered in English 1301 students' writing, the grading strategies of English 1301 instructors, and teaching experience, the coordinator of the English 1320 program identified seven concepts and their related sub-concepts as important to proficiency in college level writing. In all, twenty-two categories (Appendix A) were established. Some changes have since been made because, "Some categories were not conclusive enough or were not mutually exclusive" (Frankenberger, 1991). In February, 1990, for example, the test items concerning apostrophes were subdivided into questions concerning contractions and possessives. Also in 1990, relative pronoun clauses were added to the punctuation classification. In March of 1991, the category of "adjective agreement" was eliminated and a new concept, "word pairs," was added in order to test the spelling of certain confusing words and/or the use of homonyms. Because of the manner in which the types of grammar and usage problems tested was determined, it is logical to hypothesize

that these concepts are considered important by current English 1301 instructors and that, therefore, the developmental writing program should continue testing these problem areas.

However, no formal study had been conducted to ascertain whether these items are, indeed, deemed significant by English 1301 instructors. The purpose of this study, then, is to determine whether or not The University of Texas-Pan American developmental grammar and usage exam tests students' competency in identifying grammar and usage errors at a level appropriate to their needs in English 1301 essay writing. If one or more of the problem areas do not prove appropriate, a restructuring of the exam may be a consideration in further testing of these students.

CHAPTER II

LITERATURE REVIEW

The construction and subsequent evaluation of testing materials are difficult and involved processes. At all levels of the evaluation of a test, several types of validity, "...the extent that it measures what [the test] is supposed to measure..." (Oller, 1979: 70), must be taken into account to determine whether the evaluation materials "reflect [the program's] goals, ...curricula, and...research" (Greenburg, 1982: 370). A test of any type of skills, including basic writing, should have a high degree of face validity, content validity, and criterion-referenced validity.

A test of writing skills has high validity if it has "face" validity (seems reasonable to writing teachers and researchers), "content validity" (measures the skills, understanding, and control of strategies which comprise writing ability and ranks students according to its declared criteria), and "criterion-referenced" validity (predicts students' performance on other measures of writing ability such as performance in academic or business contexts). (Greenburg, 1982: 370)

Content validity measures the degree to which a test evaluates the performance expected of a student at the level of instruction in which she is engaged or, if an exit-level test, at the beginning level of the next step of instruction. Examination of content validity must determine whether the test measures the student's ability to "...do things that are similar in some fundamental way to what they are normally required to do in..." (Oller, 1979: 51) the target level

classroom. The evaluator must "ask if the material to be included in items in the test is somehow related to the skill, construct or curriculum that the test is supposed to assess or measure" (238). Thus, for example, a developmental writing grammar and usage evaluation should consider the minimal level of competence needed to permit the student an opportunity for success in a regular freshman composition course. According to Oller, "If a test fails this first evaluation [content validity], no matter how elegantly its items are constructed, it cannot be any better than any other ill-conceived test of whatever it is supposed to measure" (238).

The first task for a test writer and evaluator, then, is to establish what concepts should be tested. When constructing a grammar and usage measure, the test writer customarily looks at errors of this type common to the student being tested and ascertains which of these errors the student's instructors consider serious. These two considerations will determine the content of the test.

Several studies, beginning with those conducted in the early part of the twentieth century and continuing to the present, have undertaken to define just what constitutes an "error" in writing. In 1917, Johnson examined 198 college freshman essays and determined the relative seriousness of the following ten error types:

1. Spelling
2. Capitalization
3. Punctuation (mostly comma errors)
4. Careless omission or repetition
5. Apostrophe errors
6. Pronoun agreement
7. Verb tense errors and agreement
8. Ungrammatical sentence structure (fragments and run-ons)
9. Mistakes in the use of adjectives and adverbs
10. Mistakes in the use of prepositions and conjunctions

In 1930, Witty and Green (cited in Connors and Lunsford, 1988: 405) analyzed 170 college freshman papers and noted the following errors as important:

1. Faulty connectives
2. Vague pronoun reference
3. Use of "would" for simple past tense
4. Confusion of forms from similarity of sound or meaning
5. Misplaced modifiers
6. Pronoun agreement
7. Fragments
8. Unclassified errors
9. Dangling modifiers
10. Wrong tense

As can be seen by comparing Johnson's list to Witty and Green's, there is little overlap in the types of errors considered serious, with the exception of problems in verb tense, pronoun agreement, and fragments.

As noted frequently in much of the writing reviewed for this study, graders often use the items selected in mechanics handbooks as a basis for their justification of error marking. One of the most commonly used handbooks, John C. Hodges' Harbrace College Handbook (1941), was written as the result of a large-scale research study conducted by the author in 1938-1939. From the 20,000 essays that his researchers examined,

he constructed the following list of teacher-marked items:

1. Commas
2. Spelling
3. Exactness
4. Agreement
5. Superfluous commas
6. Reference of pronouns
7. Apostrophe
8. Omission of words
9. Wordiness
10. Good use

Hodges does not define what he means by "agreement" and "good use." This list agrees with Johnson's observation of problems with commas, spelling, apostrophes, and omission of words as serious errors. It overlaps with Witty and Green's list only on pronoun reference errors. Although all three lists mention pronoun errors, they do not all agree on which pronoun errors are important. If Hodge's term "agreement" refers to subject-verb agreement, it is the only specific error that all three researchers found to be serious.

Perceptions of which errors composition instructors think are important (or even remark on) have changed over the years, and for that matter, are not always agreed upon by contemporary graders. In a study done in 1961 for the Educational Testing Service, Diederich (1974: 7) found that seventy percent of the college instructors in six different disciplines commented frequently about usage, sentence structure, punctuation, and spelling in student writing. Although he provides no specific examples, he lists the following as the most frequently marked in "...a tryout of 580 items...." (1974: 78):

1. Sentence fragment
2. Comma splice
3. Run-on
4. Carelessly omitted words or parts of words, especially endings
5. Careless or needless repetition
6. Adjective for adverb and vice versa
7. Confusion of subject and object pronouns
8. Shall-will, should-would
9. Subject-verb agreement
10. Subject-verb agreement with indefinites (anyone, etc.)
11. Pronoun-antecedent agreement
12. Pronoun reference
13. Tense errors
14. Parallel structure
15. Misplaced modifiers
16. Abbreviations
17. Contractions
18. Possessives
19. Numbers not written out
20. Capitals

In an attempt to determine the relative importance of errors, Wall and Hull found a "high consensus" (60% or more) in the marking of certain items of punctuation, commas, agreement, tense, and use of a wrong word (1989: 274). They note that the label "punctuation" was used for a variety of comma errors: missing or superfluous commas, hyphens, capitalization, and quotation makers. When asked to specify which error the instructor considered most serious, "34% referred to errors in punctuation, 18.6% to grammar, and 1.4% to spelling, while 25.7% referred to errors in logic/clarity and 20% to style" (276).

In order to determine which specific errors composition instructors deemed important, Connors and Lunsford (1988) compared (among other things) the number and types of errors encountered in student writing and the number and types marked

by their instructors. The ranking of the number of errors marked by teachers in this study includes:

1. Wrong word
2. No comma after introductory element
3. Possessive apostrophe error
4. Vague pronoun reference
5. Wrong/missing inflected ending
6. Comma splice
7. No comma in compound sentence
8. Wrong or missing preposition
9. Sentence fragment
10. No comma in non-restrictive element
11. Subject-verb agreement
12. Tense shift
13. Wrong tense or verb form
14. Unnecessary shift in person
15. Pronoun agreement error
16. Run-on sentence
17. Unnecessary comma with restrictive element
18. Its/it's error
19. Lack of comma in series
20. Dangling or misplaced modifier

Except for commas after introductory elements, wrong words, and wrong or missing prepositions, all of the above errors are tested by the English 1320 grammar and usage exam.

In the early studies, categories were included that no longer seem of concern to writing instructors. For example, Hodges (1941: 83-4) explains the uses of "would" for simple past tense. As noted by Connors and Lunsford, (1988: 399), this construction does not seem to be of importance to today's composition instructors. In addition, the researchers posit that, "The many wrong word errors, the missing inflected endings, the wrong prepositions, even the its/it's error--all suggest that students today may be less familiar with the visible aspects of written forms" (1988: 406). Other items identified as serious in early studies no longer seem

significant. These include the differentiation between "shall" and "will" and between "who" and "whom," the use of subjunctive mood, and the use of possessive case with gerunds. The explanation may be that these structures seem to be disappearing from use in both spoken and written English.

It is generally accepted that the correct use of grammatical and mechanical conventions is important to instructors of writing. As Connors and Lunsford observe, "Not even the most liberal of process-oriented teachers completely ignores the problem of mechanical...errors.... The world judges a writer by her mastery of conventions, and we all know it" (1988: 396).

Determining the importance of errors, however, is sometimes difficult. Wall and Hull note that, "...many readers had difficulty with the substance of the paper, finding themselves confused by or in disagreement with the text..." and, therefore, were concerned as much with the semantic content as with the perceived errors in the text (1988: 269). Even very careful graders do not seem to observe errors when "content and semantic structures constitute the field of attention" (Williams, 1981: 154). Freedman (1979:161) concurs that content and organization seemed more important in teacher evaluation of writing than did mechanics.

Connors and Lunsford found that, "On average, college English teachers mark only 43% of the most serious errors on the papers they evaluate" (402). Although there seems to be

some correlation between the frequency of error and teacher marking, it is not consistent. Some of the discrepancy, they state, may be due to the fact that teachers mark the errors that a struggling student is having the most problems with and that sometimes the instructor tends to mark problems that are easier to explain and correct.

There seems to be little consensus on how to mark the problems noted, according to Wall and Hull (1989), which may reflect a disagreement on exactly how to classify the errors. They also found that approximately 80% of the graders did not mark nearly three quarters of the errors in the students' text. Nearly 90% percent failed to mark about two thirds of the errors. Although the authors do not specify the errors which were not marked, they state that the errors involved a wide range of error types: stylistics, logic/clarity, punctuation, grammar, and spelling (272).

Some of the more recent studies have used self-reporting rather than actual text marking and grading as the primary method of error identification; instructors are asked to specify which types of errors seem most "serious" to them. For example, Deidrich (1974: 5) had his graders assign a grade to each essay and then comment on why that grade had been assigned. Wall and Hull (1989: 291) had graders mark errors and then discuss which three types of errors marked were the most serious; no grades were assigned in this study. Self-reporting, as noted by Conners and Lunsford (1988), Williams

(1981), and others, is not always an accurate indication of actual practice in the marking and evaluating of student writing. As Williams observes, when instructed to pay attention to errors, evaluators are "likely to give answers that misrepresent [their] talking and writing, usually in the direction of more rather than less conservative values.... Merely...being asked...will require them to judge usage by the standards they think they are supposed to uphold" (1981: 154). (For further discussion of the problems endemic to self-reporting, see especially Williams, 1981.)

No studies were found which examined a list of objectively tested errors and their relative importance to the grading of written text, nor were there any studies relating the existence or frequency of errors to overall text evaluation of student compositions. Both of these approaches, however, would seem to be of value in the evaluation and comparison of the test items on the English 1320 grammar and usage exam in relation to the perceived relative importance of errors in student writing at The University of Texas-Pan American.

CHAPTER III

METHODOLOGY

As discussed in Chapter II, every measure of student performance in language usage should show content validity; that is, the test should measure the student's ability to perform at a level of competence similar to that expected of her at the beginning of the next level of instruction. Since one purpose of English 1320, the developmental writing class, is to prepare the student for regular freshman composition, English 1301, it was decided to examine the errors evident in the English 1301 final exam essays and compare these to the errors tested on the English 1320 grammar and usage exam. The essays are the final product of a semester's work and, therefore, presumably indicative of the level of freshman performance acceptable to the student's own instructors and other English 1301 graders. It was assumed that students earning higher grades on these essays would show a higher degree of mastery than students making lower scores in any given area.

MATERIALS

The English 1320 Grammar and Usage Exam

The English 1320 grammar and usage test was constructed by the coordinator of the English 1320 program with the format

of the Test of Standard Written English developed by the National Testing Institute for the Scholastic Aptitude Test. (See Brownstein, et al., 1989.) All questions are multiple choice, and two distinct question formats are used. The first presents a sentence and four distractors as in the following, which is classified as a test of punctuation of relative clauses:

The adults which the junior high students like most are most often the parents of their own best friends.

- a. adults, which the junior high students like most, are
- b. adults, who the junior high students like most, are
- c. adults who the junior high students like most are
- d. adults whom the junior high students like most are
- e. No change needed.

The student must identify the error and select the letter of the best correction. Error types treated in this manner are punctuation of relative clauses (as in the above example), faulty parallelism, misplaced modifiers, dangling modifiers, and fragments. (See Table 3.1 for examples of the questions which test these error types.)

TABLE 3.1
ERROR IDENTIFICATION AND CORRECTION OF ITEMS:
ENGLISH 1320 GRAMMAR AND USAGE EXAM

<u>Concept</u>	<u>Subconcept</u>	<u>Example</u>
Sentence structure	faulty parallelism	"Jenny hated shopping for groceries, to pick up her brother, and to buy a newspaper for her father."
	misplaced modifiers	"The puma lay dead in the truck shot by the hunter with two dogs."
	dangling modifiers	"Mowing the grass on Saturday morning, Dad's golf game had to wait until the afternoon to play."
	fragments	"The troops, covered with camouflage nets, awaiting a war in which desert sand and heat may be their worst enemies."

In the second format, a sentence is presented with certain elements underlined as in the following, which tests subject-verb agreement following "there":

Mary never liked to re-read her essays, but when her
English ^A teacher taught her how to proofread, she learned
^B there was many mistakes which she could find and correct
^C herself. No error. ^D
^E

The student must simply identify which underlined item contains the error, if an error exists. In addition to subject-verb agreement after "there" as in the above example, the second format tests nineteen other problems in areas such as adjective agreement, apostrophe usage, pronoun usage, punctuation of clauses, subject-verb agreement, and tense usage. The following chart lists each category used in the second format, the subcategories of each division, and examples from the exam.

TABLE 3.2
ERROR IDENTIFICATION OF ITEMS:
ENGLISH 1320 GRAMMAR AND USAGE EXAM

<u>Concept</u>	<u>Subconcept</u>	<u>Example</u>
Adjective	agreement	"...this types..."
Apostrophe	contractions	"John and I did'nt go..."
	possessive	"...womens' salaries..."
Pronoun	agreement	"...a college student seems to have a great life because they..."
	case	"Me and three friends had seen...."
	reference	"Technology is wonderful; they will probably invent..."
	spelling	"Mike hurt hissself..."

Punctuation	dependent clauses	"High school students go to the bar, because..."
	independent clauses	"Most students hate their classes, but attend..."
Subject-verb agreement	compound subjects	"My aunt, my father, and even my younger brother thinks..."
	words with "of"	"Some of the people in the housing project says..."
	phrases between subject and verb	"The purpose of her sister's cards and letters were..."
	singular words	"Everyone attending classes think..."
	fixed forms	"...he could not saved..."
Tense	perfect	"...she had stoled..."
	past participle	"...she was ask..."
	past tense	"...after I finish high school last year..."
	tense shift	"...when he had completed college they are planning..."

In 1990, when the data for this study were collected, the test consisted of two questions chosen from each of the twenty-four sub-concept categories and two random questions, a total of fifty questions. Each student was given fifty minutes to complete the exam.

The English 1301 Final Exam Essay

Twenty-five percent of the student's course grade for English 1301 is derived from her performance on the departmental final exam essay. Six possible topics for this exam are developed by a departmental committee. The individual instructor then distributes a list of these topics to the student the week before the administration of the exam. The topics are discussed in the classroom, and the student is encouraged to do whatever prewriting, drafting, outlining, or other planning she thinks appropriate in preparation for taking the exam. On exam day, two of the six topics are assigned, again by the committee, and the student chooses and writes about one of the topics. The student may not use an outline, rough draft or other notes written outside of the exam room while writing the essay.

Each final exam essay is anonymously and independently evaluated by two English 1301 instructors other than the student's classroom teacher. In order to insure that the final exam evaluations reflect a department-wide assessment of student performance, the essays from each section are distributed among English 1301 instructors so that no individual grader evaluates more than a few essays from each class section. For example, in the data used in this study, each section of samples taken from spring and fall semester finals was evaluated by between thirteen and twenty-two graders; because there were only five sections in the summer,

one section had only two graders and the other had three. The exams are graded holistically, i.e., errors are not marked on the essay and grades are assigned based on evaluation of organization, content, language usage, and mechanics.

PROCEDURES

Ten sections of English 1301 final exam essays were collected from those available in the department. All of these exams were written in 1990, three sections from the spring semester, two from the second summer session, and five from the fall semester. The total number of samples is 219.

The investigator read and coded each sample for error types addressed on the English 1320 grammar and usage test; only the error types tested on the English 1320 exam were noted. The types of errors and the incidence of each were recorded for each essay. The essays were then grouped based on their final scores; an assignment of ten percent increments was considered an appropriate point of division. (See Table 3.3 for the frequency breakdown of the sample.) There were no scores above 89 or below 50.

TABLE 3.3
FREQUENCY OF SCORES OF ESSAYS
N = 219

	<u>Score</u>	<u>Number of Essays</u>	<u>Percentage</u>
Group 1:	50-59%	29	13.2%
Group 2:	60-69%	100	45.7%
Group 3:	70-79%	79	36.1%
Group 4:	80-89%	11	5.0%

A tally was done for each group, and the mean incidence of occurrence of each error type and mean total number of errors per essay were calculated.

DATA ANALYSIS

A one-way Analysis of Variance (ANOVA) was used to determine the statistical significance of the error/sample ratios encountered between each of the four groups. This formula eliminates most of the differences likely to occur by chance, and, thus, gives as accurate a record as possible of the true variances between groups. A probability of .05 was set as an acceptable level of variance.

In addition, an item analysis of the grammar and usage exam administered in November of 1990 was completed. Although not addressed as a part of a measure of content validity of the exam, the results indicate that thirty-seven questions (74%) did not discriminate between the high and low scorers. Further, nine of questions (18%) showed a too-high difficulty level ($D < .33$) and thirteen questions (26%) exhibited a too-low level of difficulty ($D > .67$). Thus, twenty-two (44%) of the questions did not meet acceptable levels of difficulty. (See Appendix B.)

CHAPTER IV
RESULTS AND DISCUSSION

ANALYSIS OF DATA

The data from each category were analyzed using a one-way Analysis of Variance (ANOVA) for unequal n 's to determine whether the differences in the number of errors per group were statistically significant at the .05 level. Since the number of groups (four) and the total sample size (219) are the same for all categories, the F-critical value (2.65 at the .05 level) is the same for all items. The means of each error type per essay in each group (Table 4.1) were also calculated as a method of looking at patterns of error. Only those errors tested on the English 1320 grammar and usage exam were examined.

ANALYSIS OF DATA
 TABLE 4.1
 Number of Errors Per Group and
 Mean Incidence of Error Per Essay

ITEM	Group I	Group II	Group III	Group IV	Total
	50-59% n = 29	60-69% n = 100	70-79% n = 79	80-89% n = 11	Sample N = 219
Adjective agreement	3 .10	19 .19	4 .05	3 .27	29 .13
Apostrophes	23 .79	61 .61	42 .53	7 .64	133 .61
Pronouns	33 1.14	85 .85	57 .72	3 .27	178 .81
Punctuation of clauses	97 3.34	486 4.86	330 4.18	43 3.91	956 4.36
Sentence structure	35 1.21	93 .93	54 .68	4 .36	186 .85
Subject-verb agreement	37 1.28	46 .46	19 .24	1 .09	103 .47
Tense	21 .72	76 .76	24 .30	1 .09	122 .56
TOTAL:	249 8.59	866 8.66	530 6.71	62 5.64	1707 7.79

ANALYSIS AND DISCUSSION OF ITEMS TESTED

Following are examples of each item tested, classified as they are in the item bank used to construct the English 1320 grammar and usage exam. After the examples are the statistical analyses (means and ANOVA's) and discussions of the possible causes of the results.

Adjective Agreement

1. Adjective agreement

Some of the "illegal aliens" in the Valley are from Mexico,
A B
but many of this people come from Nicaragua. No error.
C D E

This category tests the student's ability to differentiate between the uses of "this" and "these."

Analysis of Adjective Agreement Errors. The samples yielded few incidences of these errors in any group. Group I, with the lowest essay scores, had .10 adjective agreement errors per sample. Group II had .19, Group III had .05, the lowest mean of all the groups, and Group IV. .27 adjective agreement errors, the highest mean of the four groups. The ANOVA yielded an observed F value of .20 (see Table 4.2), well below the value of F-critical (2.65 at the .05 level) needed to prove significance.

In this geographical area, the spelling of "this" and "these" is often confused because the differences in pronunciation are minimal. However, since there are so few

errors of this type found in the samples, it seems that most students have learned to distinguish the different meanings of the words.

Table 4.2
ANOVA of Adjective Agreement Errors

Source of variation	SS	df	MS	F
Between groups	1.1	3	.37	.20
Within groups	390.06	215	1.81	
Total	391.16	218		

Apostrophes

2. With contractions

Sarah hadn't worried much about finals, so last semester's
 A B
 grades were very low; consequently, she didn't want to repeat
 C D
 the same mistake this semester. No error
 E

The student is asked to recognize an improperly placed apostrophe in a contraction or the lack of an apostrophe where needed in a contraction.

3. With possessives

Childrens' toys were scattered everywhere, and there were
 A B
 clothes all over the floor when dad's friends entered the
 C D
 room. No error
 E

This type of item presents both regular possessives and those of irregular plurals such as "women's," "men's," and

The testing of pronoun agreement examines lack of accord between the subject noun or pronoun and a pronoun referring to the subject in a subsequent clause or phrase. Frequently this shift is to "you" or "they."

5. Case

Me and Mom always go to the mall early on Saturdays before
A B
it's crowded with people who come to walk around. No error
C D E

This category of error asks the student to recognize the improper use of subject, object and reflexive pronouns.

6. Reference

Most of the nurses were in favor of selling condoms on campus
A B
because you want to help young people learn to avoid the
C
dangers of AIDS and other venereal diseases. No error
D E

The student is required to locate within the sentence a pronoun with no apparent referent.

7. Spelling

Mike hurt hissself while riding Tommy's bike, so Mike's father,
A B
who's a lawyer, is suing Tommy's family. No error
C D E

This class of errors includes common misspellings such as "thier" and "themselfs" and non-standard usages such as

"hissself."

Analysis of Pronoun Errors. The mean number of errors for each group is as follows: Group I, 1.14; Group II, .85; Group III, .72; and Group IV, .27. Although these averages indicate the groups differ in terms of frequency of pronoun errors, that difference ($F=.116$) proved to be non-significant.

The lack of significant differences among the groups may reflect several things. One of these is that the use of "they" to agree with a third person singular noun is fairly well accepted in spoken English and may be becoming acceptable in written English as well. Also, two of these errors tested --"hissself" and "theirselves"--are often questioned by this researcher's English 1320 students as typographical errors. These forms do not seem to be present in the local dialect and, therefore, are not present as errors in the students' writing.

Table 4.4
ANOVA of Pronoun Errors

Source of variation	SS	df	MS	F
Between groups	7.07	3	2.36	.116
Within groups	4366.25	215	20.31	
Total	4373.32	218		

10. Relative clauses

The woman, who plants flowers near the street, waves to other people in the neighborhood.

- a. woman which plants flowers near the street, waves
- b. woman, whom plants flowers near the street, waves
- c. woman whom plants flowers near the street waves
- d. woman who plants flowers near the street waves
- e. No change needed

This test item involves comma usage with identifying and nonidentifying relative clauses and the selection of the correct relative pronoun (who, whom, which, that) for its referent. Because this item tests both punctuation and pronoun selection, it is impossible to determine exactly what the student does or does not know about the correct construction of relative clauses.

Analysis of Punctuation of Clauses Errors. The mean number of errors in punctuation of clauses shows 3.34 errors per sample in Group I, 4.86 in Group II, 4.18 in Group III, and 3.91 in Group IV. This type of error showed the highest incidence per sample (4.37) of all the categories of error examined. The ANOVA (Table 4.5) examining this category shows an observed F value of .36, reflecting the lack of statistical significance (2.65 at the .05 level) in the variance among the groups.

The near-identical incidences of occurrence of this type

of error for all four groups may reflect the differences in complexity of the sentences among the groups. Better writers tend to use more complex sentence structures and, therefore, are more likely to have punctuation errors within their sentences. Another reason for the unevenness of means and for the high rate of error occurrence in this type of item may be the weakening of the use of "whom" in both spoken and written English. Although the differentiation between "who" and "whom" is not the primary focus in this item, it is a factor in the selection of the correct answer.

Table 4.5
ANOVA of Punctuation of Clause Errors

Source of variation	SS	df	MS	F
Between groups	7.07	3	2.36	.36
Within groups	1602.25	215	7.45	
Total	1609.32	218		

Sentence Structure

11. Dangling modifiers

Watching the trees blowing in the cool winds, the sudden change in the weather seemed a sure sign of winter.

- a. the changing weather seemed to be a sure sign of winter.
- b. winter was obviously coming soon.
- c. we thought the weather seemed a sure sign of winter.
- d. which made Carlos know that winter was coming soon.
- e. No change is needed.

A dangling modifier results from the insertion of a modifying element that does not have a clear, logical referent within the main clause.

12. Fragments

The children, covered with mosquito bites, coming in after dark with their shirts sweaty and their pants dirty.

- a. children, covered with mosquito bites, come
- b. children, covered with mosquito bites, and coming
- c. children, covering with mosquito bites, came
- d. children were covered with mosquito bites, and coming
- e. No change is needed.

This category presents an incomplete sentence that is generated by the use of an improper verb form or the incorrect use of a semicolon or period.

13. Misplaced modifiers

The car struck the children driven by the drunken teenagers.

- a. The car struck the children, driven by drunken teenagers.
- b. Driven by drunken teenagers, the children were hit by the car.
- c. Driven by drunken teenagers, the car struck the children.
- d. Driven by drunken teenagers, the car was striking the children.
- e. No change is needed.

A misplaced modifier results from the insertion of a modifying phrase in a location other than near the noun phrase it describes. The student is asked to identify and correct the error.

14. Parallelism

Since recovering from his heart attack, Ted's dad likes to play golf on weekends, fishing with his sons, and betting on the horses.

- a. weekends, fishing with his sons, and to bet on the horses.
- b. weekends, to fish with his sons, and betting on the horses.
- c. weekends, fish with his sons, and bet on the horses.
- d. weekends, fish with his sons, and to bet on the horses.
- e. No change is needed.

Here, the student is expected to recognize and correct embedded phrases of unequal structure.

Analysis of Sentence Structure Errors. Sentence structure errors occurred at a rate of 1.21 in Group I, .93 in Group II, .68 in Group III, and .36 in Group IV. Again, as with the category of pronouns, the groups differ in terms of frequency of sentence structure errors; however, the observed F-value was .098 (see Table 4.6), not significant at the .05 level (2.65).

As noted above in the discussion of the punctuation of clauses, at least part of the lack of significant difference here may be attributable to dissimilarities in sentence complexity. Because better writers tend to use more complex sentence structures, they have a greater chance of making sentence structure errors. Level of sentence complexity may or may not, however, apply to the presence of fragments, depending on the structure of the fragment itself. Some fragments are attempts at coordination or subordination that

are incorrectly punctuated. Other fragments are simply isolated phrases (for example, "In the dark."). It would be interesting to see whether the different groups commit fragment errors of different types.

Table 4.6
ANOVA of Sentence Structure Errors

Source of variation	SS	df	MS	F
Between groups	9.11	3	3.04	.098
Within groups	6660.91	215	30.98	
Total	6670.91	218		

Subject-verb Agreement

15. With compound subjects

The teacher, the counselor, and his sister ^A thinks Bill is too young _B to quit college and start working; ^C they fear he will lose _D interest in ever completing his degree. No error _E

Testing of subject-verb agreement with compound subjects asks the student to detect a singular ending on a verb that should agree with a subject containing more than one noun phrase.

16. With structures such as "some of"

One of the rac ^A es _B was too close to call without a photo, and some of the dogs _C was tired, but most of the customers _D were excited by gambling at the new dog track. No error _E

This type of error occurs with certain words (for example, "all," "most," and "some") followed by "of" and a

noun phrase. The noun phrase determines whether the verb should be in a singular or plural form.

17. With phrases between subject and verb

Three trips from their house in the country to the grocery in town was necessary before the Garzas had everything for the party they were having for their daughter's graduation.
A
B C D
No error
E

The student is asked to check for proper subject-verb agreement in a sentence where there is a phrase between the subject and the verb.

18. With singular words

Each of the women are gentle with the children's feelings, but some of their husbands' attitudes are cruel. No error
A B C D E

In this type of item, unlike that with sentence structures such as "some of," above, the verbs are always singular. Examples of "singular words" are "any," "each," and "everything."

19. In "there" clauses

When we first moved to McAllen, there were no pizza places in the entire town, but no there is pizza, chicken, or Chinese places on practically every corner. No error
A B C D E

Subject-verb agreement with "there" presents the student with the phrase "there is" or "there are" followed by a noun

phrase that does not agree with the verb used. Sometimes a compound noun phrase is the subject.

Analysis of Subject-Verb Agreement Errors. The mean incidence of error in subject-verb agreement was as follows: Group I, 1.28; Group II, .46; Group III, .24; and Group IV, .09. Again, the groups differ in frequency of error; however, the observed F-value of 1.34 (see Table 4.7) is not great enough to indicate statistical significance.

The Analysis of Variance of subject-verb agreement errors yielded the most surprising results of all the categories examined in this study. It seemed reasonable to assume that, of all the errors committed in student texts, verb problems would be the most serious since all sentences must have at least one verb (while, for example, not all have relative clauses). This would increase the odds of an error in subject-verb agreement occurring. However the mean error occurrence for all the essays was only .47, lower than the error rates of punctuation of clauses and that of sentence structure errors. (See Table 4.1.)

Also, since the items tested on the English 1320 grammar and usage exam involve complex sentence structures such as sentence embedding (compound subjects and phrases between subject and verb), transformations (with "there"), and the separation of subject and verb by prepositional phrases ("some of" and singular words), the reader (as well as the writer)

may tend to lose the perception of the correct grammatical structure and concentrate, rather, on the semantic content of the sentence.

Table 4.7
ANOVA of Subject-Verb Agreement Errors

Source of variation	SS	df	MS	F
Between groups	1.46	3	.49	.03
With groups	4168.77	215	19.39	
Total	4170.23	218		

Tense

20. Fixed form helpers

Jesse could have had a better chance at college if he
^A
had finished high school, but after he had dropped out, he
^B ^C
did not had any way to get back into school again. No error
^D ^E

Tense errors with fixed form helpers are constructed by adding double tense markers in constructions comprised of "do" and modals such as "can," "may," and "should." A negative element may also be inserted.

21. Perfect tense

"Abortion" is a political issue again since it had caused many
^A ^B
Americans to face issues about how women's rights may conflict
^C ^D
with the right to life itself. No error
^E

In this item, the student is expected to note an error in the sequencing of verbs in the perfect tenses; verbs in the subordinate clauses in these items should, but do not, relate

logically and naturally to the tense of the verb in the main clause.

22. Past participles

When the Garcias moved to Houston, they were not use to Texas' high humidity although they soon adjusted. No error

A B
C D E

This error results from the omission of the -ed or -en verb ending on the participle form.

23. Past tense

When Robert drove her home, Lora walked to the door and ask if he'd call her after classes ended tomorrow. No error

A B
C D E

Here, the student is required to locate a verb in the simple past tense without the past tense ending.

24. Tense shift

John and I always liked fishing together when we were kids because we are out on the lake where our parents couldn't be telling us what to do every minute. No error

A B
C D E

In this item, the student is expected to note an error in the sequencing of verbs in the simple past or present tense; verbs in the subordinate clauses in these items should, but do not, relate logically and naturally to the tense of the verb in the main clause.

Analysis of Tense Errors. The mean incidence of tense errors in Group I was .72; in Group II, .76; in Group III,

.30; and in Group IV, .09. Although there is a difference in frequency of error among the groups, the ANOVA of this category yielded an observed F-value of .50, significantly lower than the F-critical value of 2.65.

There are several possible reasons for the lack of significance in this category. First, only five essays (eleven total errors) showed problems with the use of fixed form helpers. This researcher's teaching experience suggests that this type of error is committed only by students who are new speakers of English and who have not progressed beyond the intermediate level of English as a second language instruction. Even these students quickly learn to avoid these errors.

In contrast, two of the categories (perfect tense and tense shift) involve sentence subordination, a level of complexity not seen in the work of the poorer writers. Because more sophisticated writers use more subordination in their compositions, a higher error incidence is more likely to occur. Weaker students may be making more errors per subordinated sentence, but stronger students have more constructions of this type, and, therefore, more errors per essay analyzed. This might explain why there is no significant difference in the commission of this type of error.

The testing of past participles involves passive constructions ("be" plus a verb with an -ed or -en ending on

a regular verb) such as "she was asked." This category also includes constructions that resemble passives (for example, "Karen was used to...", "They were supposed to..."). Errors in this type of construction may happen because of overgeneralization of the knowledge that tense is marked on only the first verb in a series; items such as "Karen was use to.." may be analyzed as correct because they follow the usual pattern of tense markers in English. (Compare this to problems with fixed form helpers, above.) Some errors in verb usage such as "...is use to...." "...was ask to...") may also reflect phonetic spelling; few speakers pronounce the endings on these constructions because the proximate sound in the sentence is very similar to the sound of the participle ending. This may also account for some of the errors in past tense usage.

Table 4.8
ANOVA of Tense Errors

Source of variation	SS	df	MS	F
Between groups	12.39	3	4.13	.50
Within groups	1791.65	215	8.33	
Total	1804.04	218		

Analysis of Total Errors The groups had the following mean total errors: Group I, 8.59; Group II, 8.66; Group III, 6.71; and Group IV, 5.64. The F-ratio of .044 (see Table 4.9) is less than the F-critical value of 2.65. Therefore, the difference in total number of errors per sample is not statistically significant.

Table 4.9
ANOVA of Total Errors

Source of variation	SS	df	MS	F
Between groups	237.43	3	79.14	.044
Within groups	386865.32	215	1799.37	
Total	387102.75	218		

SUMMARY OF DATA ANALYSIS

The ANOVA's indicate that none of the categories examined showed statistical significance among the four groups of student writers (see Table 4.10). Some of these errors (for example, adjective agreement and fixed-form helpers) are not being committed by many students. Others, such as the use of "they" to agree with a third-person singular subject and the confusion over the use of "who" and "whom," may reflect changes in the language. Finally, there seems to be some correlation between the complexity of sentence structure and the presence of certain types of errors (for example, punctuation of clause errors, sentence structure errors, and some types of subject-verb agreement errors). It may be that, because better writers use more complex sentence structures

than weaker writers, the better writers make an equal number of errors as do poorer writers. Whatever the cause, these errors and all of the other types of errors examined in this study are committed in approximately equal numbers (statistically) by all English 1301 writers.

Table 4.10
Summary of ANOVA's for All Categories

Category	Observed F-value	F-critical = 2.65
Adjective agreement	.20	
Apostrophes	.03	
Pronouns	.116	
Punctuation of clauses	.36	
Sentence structure	.098	
Subject-Verb agreement	1.34	
Tense	.50	

CHAPTER 5 CONCLUSION

Any instrument of measurement of language ability must show a high degree of content validity; it must evaluate the performance of the student at the appropriate level of competency. Because no formal analysis of the English 1320 grammar and usage exam had been performed to determine if this measure shows content validity, this study was set up to compare the items tested on the English 1320 grammar and usage exam with the errors found on English 1301 final exam essays.

Two-hundred-nineteen English 1301 final exam essays were divided into groups according to their total score, and then the essays were examined for the types of errors tested on the English 1320 grammar and usage exam. Analyses of Variance were then performed on the data to determine whether the errors encountered showed statistical significance among the groups.

Because the items tested were selected based on observation of student writing and instructor grading, it was expected that the results of analysis would show significance in all areas tested. Subject-verb agreement, tense usage and pronoun usage were expected to be of particular significance since they are structures at the very base of the language. The Analyses of Variance revealed no statistically significant differences in any of the categories; statistically, students in all the groups made the same types and the same number of

errors. There seems to be a trend towards diversity in number of errors committed in the categories of pronoun, sentence structure, and subject-verb agreement, and total number of errors. However, the differences are not great enough to claim true significance.

The lack of statistical significance in the categories examined suggests several things. First, some of the errors tested on the English 1320 grammar and usage exam are not committed by many English 1301 students. This may reflect a higher level of competency of the students in English 1301 than those in English 1320, or these errors may simply not be serious problems with either group of students.

In addition, the apparent acceptability of some errors may reflect a change in what is considered appropriate language usage. The loss of differentiation between "who" and "whom" may, for example, be established as acceptable in English prose.

Most salient to this researcher's mind is the possibility that many of these errors occur in the more advanced student writer's work because she uses more complex sentence structures, which may also reflect a more complex level of thinking. Perhaps English 1301 instructors are more impressed with sophisticated sentence structure and topic analysis than they are disturbed by incorrect comma usage or an occasional misplaced modifier.

Also, as noted by Wall and Hull (1988: 269), Williams

(1981: 154), and Freedman (1979: 161), among others, composition instructors may, like most readers, concentrate on the semantic content of the writing more than on the mechanical aspects of written communication when grading their students' writing holistically. Even though writing instructors purport to be concerned with mechanics, when the content of the writing is good, it may take precedence over the "errors" perceived by the reader. When the content is weak, errors may seem more obvious.

This study examined items that proved to be not significant to English 1301 final exam graders. It needs to be determined what exactly does matter to these instructors in order to know what types of items should be included in the English 1320 grammar and usage exam if it is to be revised.

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APPENDIX A:
ITEMS TESTED, FALL SEMESTER, 1990

<u>Concept</u>	<u>Subconcept</u>
adjective	agreement
apostrophe	contractions possessives
pronouns	agreement case reference spelling
punctuation	dependent clauses independent clauses relative clauses
sentence structure	dangling modifiers fragments misplaced modifiers parallelism
subject-verb agreement	compound subjects "some of" etc phrases between subject and verb singular words after "there"
tense	fixed form helpers perfect tenses past participle past tense tense shift

APPENDIX B:
ITEM ANALYSIS, FALL, 1990

Overall Results

Measures of Central Tendency:

Number of samples	917
Samples 70% or above	107
Percent	11.7
Mean	52%
Standard Deviation	N/A

Analysis Sample Results

Measures of Central Tendency

Number of samples	250
Samples 70% or above	35
Percent	14%
Mean	52.04%
Standard Deviation	6.611863

Results of Item Analysis

Difficulty: 44% of the items did not meet the criteria for acceptable level of difficulty (D = .33-.67)

Discrimination: 74% of the items showed an unacceptable level of discrimination (below .67).

Vita

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