

THE UNIVERSITY OF MANITOBA

VARIABILITY IN THE INTERLANGUAGE OF
HIGH-INTERMEDIATE ADULT ESL STUDENTS
AS MEASURED BY FOUR DIFFERENT TESTS

BY

PHYLLIS D. MANN

A THESIS

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HUMANITIES AND SOCIAL SCIENCES

FACULTY OF EDUCATION

WINNIPEG, MANITOBA

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| History | |
| General | 0578 |

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| Modern | 0582 |
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THE SCIENCES AND ENGINEERING

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|------------------------------|------|
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| General | 0473 |
| Agronomy | 0285 |
| Animal Culture and Nutrition | 0475 |
| Animal Pathology | 0476 |
| Food Science and Technology | 0359 |
| Forestry and Wildlife | 0478 |
| Plant Culture | 0479 |
| Plant Pathology | 0480 |
| Plant Physiology | 0817 |
| Range Management | 0777 |
| Wood Technology | 0746 |
| Biology | |
| General | 0306 |
| Anatomy | 0287 |
| Biostatistics | 0308 |
| Botany | 0309 |
| Cell | 0379 |
| Ecology | 0329 |
| Entomology | 0353 |
| Genetics | 0369 |
| Limnology | 0793 |
| Microbiology | 0410 |
| Molecular | 0307 |
| Neuroscience | 0317 |
| Oceanography | 0416 |
| Physiology | 0433 |
| Radiation | 0821 |
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| Zoology | 0472 |
| Biophysics | |
| General | 0786 |
| Medical | 0760 |

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|-----------------------|------|
| Geodesy | 0370 |
| Geology | 0372 |
| Geophysics | 0373 |
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| Mineralogy | 0411 |
| Paleobotany | 0345 |
| Paleoecology | 0426 |
| Paleontology | 0418 |
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| Palyology | 0427 |
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| Physical Oceanography | 0415 |

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|---------------------------------|------|
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| Health Sciences | |
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| Education | 0350 |
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| Pathology | 0571 |
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| Physical Therapy | 0382 |
| Public Health | 0573 |
| Radiology | 0574 |
| Recreation | 0575 |

| | |
|------------------|------|
| Speech Pathology | 0460 |
| Toxicology | 0383 |
| Home Economics | 0386 |

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| | |
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| Biochemistry | 0487 |
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| Pharmaceutical | 0491 |
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| Radiation | 0756 |
| Solid State | 0611 |
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| Computer Science | 0984 |

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|----------------------------|------|
| Engineering | |
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| Chemical | 0542 |
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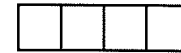
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| | |
|---------------|------|
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ÉDUCATION

| | |
|---|------|
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| Administration | 0514 |
| Art | 0273 |
| Collèges communautaires | 0275 |
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| Enseignement primaire | 0524 |
| Enseignement professionnel | 0747 |
| Enseignement religieux | 0527 |
| Enseignement secondaire | 0533 |
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| Formation des enseignants | 0530 |
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| Mathématiques | 0280 |
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| Physique | 0523 |
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| Sciences sociales | 0534 |
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| Technologie | 0710 |

LANGUE, LITTÉRATURE ET LINGUISTIQUE

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|-------------------------------|------|
| Langues | |
| Généralités | 0679 |
| Anciennes | 0289 |
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| Littérature | |
| Généralités | 0401 |
| Anciennes | 0294 |
| Comparée | 0295 |
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| Africaine | 0316 |
| Américaine | 0591 |
| Anglaise | 0593 |
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| Canadienne (Anglaise) | 0352 |
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| Germanique | 0311 |
| Latino-américaine | 0312 |
| Moyen-orientale | 0315 |
| Romane | 0313 |
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| Religion | |
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| Histoire des religions | 0320 |
| Philosophie de la religion | 0322 |
| Théologie | 0469 |

SCIENCES SOCIALES

| | |
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| Archéologie | 0324 |
| Culturelle | 0326 |
| Physique | 0327 |
| Droit | 0398 |
| Économie | |
| Généralités | 0501 |
| Commerce-Affaires | 0505 |
| Économie agricole | 0503 |
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| Histoire | 0509 |
| Théorie | 0511 |
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| Études féministes | 0453 |
| Folklore | 0358 |
| Géographie | 0366 |
| Gérontologie | 0351 |
| Gestion des affaires | |
| Généralités | 0310 |
| Administration | 0454 |
| Banques | 0770 |
| Comptabilité | 0272 |
| Marketing | 0338 |
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| | |
|---|------|
| Ancienne | 0579 |
| Médiévale | 0581 |
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SCIENCES ET INGÉNIERIE

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| Pathologie animale | 0476 |
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| Physiologie végétale | 0817 |
| Sylviculture et faune | 0478 |
| Technologie du bois | 0746 |
| Biologie | |
| Généralités | 0306 |
| Anatomie | 0287 |
| Biologie (Statistiques) | 0308 |
| Biologie moléculaire | 0307 |
| Botanique | 0309 |
| Cellule | 0379 |
| Écologie | 0329 |
| Entomologie | 0353 |
| Génétique | 0369 |
| Limnologie | 0793 |
| Microbiologie | 0410 |
| Neurologie | 0317 |
| Océanographie | 0416 |
| Physiologie | 0433 |
| Radiation | 0821 |
| Science vétérinaire | 0778 |
| Zoologie | 0472 |

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| Géophysique | 0373 |
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| Paléobotanique | 0345 |
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| | |
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| Laisirs | 0575 |
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| Ophtalmologie | 0381 |
| Orthophonie | 0460 |
| Pathologie | 0571 |
| Pharmacie | 0572 |
| Pharmacologie | 0419 |
| Physiothérapie | 0382 |
| Radiologie | 0574 |
| Santé mentale | 0347 |
| Santé publique | 0573 |
| Soins infirmiers | 0569 |
| Toxicologie | 0383 |

SCIENCES PHYSIQUES

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| Chimie | |
| Généralités | 0485 |
| Biochimie | 487 |
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| Chimie minérale | 0488 |
| Chimie nucléaire | 0738 |
| Chimie organique | 0490 |
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| Physique | 0494 |
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| Radiation | 0754 |
| Mathématiques | 0405 |
| Physique | |
| Généralités | 0605 |
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| Astronomie et astrophysique | 0606 |
| Électronique et électricité | 0607 |
| Fluides et plasma | 0759 |
| Météorologie | 0608 |
| Optique | 0752 |
| Particules (Physique nucléaire) | 0798 |
| Physique atomique | 0748 |
| Physique de l'état solide | 0611 |
| Physique moléculaire | 0609 |
| Physique nucléaire | 0610 |
| Radiation | 0756 |
| Statistiques | 0463 |

Sciences Appliquées Et Technologie

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|-------------------|------|
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| Ingénierie | |
| Généralités | 0537 |
| Agriculture | 0539 |
| Automobile | 0540 |

| | |
|---|------|
| Biomédicale | 0541 |
| Chaleur et ther modynamique | 0348 |
| Conditionnement (Emballage) | 0549 |
| Génie aérospatial | 0538 |
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| Mécanique navale | 0547 |
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| Technique du pétrole | 0765 |
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| Matériaux plastiques (Technologie) | 0795 |
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SCIENCES DE LA TERRE

| | |
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| Biogéochimie | 0425 |
| Géochimie | 0996 |
| Géodésie | 0370 |
| Géographie physique | 0368 |



VARIABILITY IN THE INTERLANGUAGE OF HIGH-INTERMEDIATE
ADULT ESL STUDENTS AS MEASURED BY FOUR DIFFERENT TESTS

BY

PHYLLIS D. MANN

A Thesis submitted to the Faculty of Graduate Studies of the University of Manitoba
in partial fulfillment of the requirements of the degree of

MASTER OF EDUCATION

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permission.

ABSTRACT

This study measured variability in the interlanguage of high-intermediate adult ESL students by using four different tests. The study examined the effect of discourse length and attention to form on the production of four grammatical forms.

The instruments used in the study included two single sentence tests: discrete point unconnected grammar exercise and a series of oral questions with a short written phrase or sentence answer, and two extended text tests: a modified cloze exercise and a written paragraph assignment. The grammar points included two cohesive forms: articles and direct object pronouns, and two forms with little cohesive value: third person singular present tense morpheme (-s) and regular noun plural morpheme (-s). The subjects were 28 high-intermediate English language learners who spoke a variety of first languages. The data were collected in one sitting.

Wilks' Lambda multivariate test results showed that all four grammatical forms displayed statistically significant variation in interlanguage between tests. An analysis of variance between the extended texts and sentence level texts showed that there was a significant difference for the article ($p = 0.0007$) but no difference for third person singular verbs and noun plurals. Results were questionable for the direct object ($p = 0.0562$). Scores for the article were better on both extended text tests than on the sentence level tests.

The ANOVA tests comparing high attention to form with low attention to form showed that there was a significant difference for noun plurals ($p = 0.0166$) and direct object pronouns ($p = 0.0001$) but that there were no significant differences for

third person singular verbs and articles.

Pearson Correlation Coefficients showed that there were significant relationships between success in using articles and success in using direct object pronouns for the discrete point grammar test ($p = 0.0026$) and between success in using plural nouns and success in using third person singular present tense verbs on the cloze ($p = 0.0367$), response ($p = 0.0016$), and discrete point grammar tests ($p = 0.0013$).

The implications of the study are that when testing students for placement or progress, a variety of testing contexts should be used. Care should be taken in the classroom to offer a wide variety of exercises to give students experience using grammatical forms in many contexts.

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Chapter One

Introduction

Background to the Study

Teachers of second language learners are often pleased with students' progress as evidenced by the results of tests and exercises given after a grammar unit. However, this pleasure can turn to disappointment when teachers notice that the learners' everyday production of the second language shows little or no improvement and that students fail to use their new grammar in longer written paragraphs. Why do students do better on tests than they do in everyday use? Why do they appear to have improved in short classroom exercises and show no progress in longer written paragraphs? Why do students appear to have understood a grammatical point in a grammar lesson but seem to have forgotten it while writing a passage that is focused on content later that same day?

The answer to these questions may lie in the nature of the tests and exercises administered in the classroom. Perhaps the tests and exercises that teachers use or design are not able to predict learners' proficiency (performance) in a variety of contexts with regards to a certain grammatical point because of the nature of the task. Maybe the testing task should reflect target situations in a more complete way.

Perhaps the problem is that the questions on classroom tests are instances of usage--often single sentences--that are isolated and without context and that the ability to perform successfully here does not transfer readily to language use.

Statement of the Problem

The present research was designed to investigate how learners' variable performance in producing morphological and syntactic forms is related to task. It investigates where second language learners demonstrate correct usage of a point of grammar and where they fail to use the correct form. This study is based upon Tarone's (1985) study reported in Language Learning entitled "Variability in interlanguage use: A study of style-shifting in morphology and syntax".

In order to better describe the variability found in learners' interlanguage and to build upon some of Tarone's findings, this study focuses on four points of grammar and four different tests. Tarone suggested limiting subsequent studies to the following grammatical points: third person singular present tense morpheme (-s), regular noun plural morpheme (-s), articles, and direct object pronouns. Although articles are determiners, the term article will be used because articles are used exclusively on three of the tests. The fourth test, the written paragraph test, may include determiners because subjects have complete control over what they are writing. On this test, all determiners will be included in the article category.

The instruments used in this study included: a discrete point unconnected grammar exercise (single sentences), a modified cloze exercise (extended text), a

series of oral questions to which students respond with short written phrases or sentence answers (single sentences), and a written paragraph assignment (extended text).

Research Questions

The four instruments testing the four grammatical forms described above were used to answer the following questions about second language learner variability:

1. Do second language learners demonstrate correct usage of a point of grammar on one test but fail to demonstrate it on a different test?
2. If there is variation, with which structures do second language learners exhibit variation in their interlanguage? For example, with which grammatical forms do second language learners demonstrate correct use and with which forms do they display difficulty on different tests?
3. Can a generalization be made about what kind of test learners are most successful in with regard to specified forms of grammar?
4. Do second language learners use specified forms of grammar more successfully when these forms are used in single sentence discourse and less successfully when they are used in textual discourse? Or is the opposite true?
5. Do second language learners perform more successfully when they are required to complete a task that is relatively focused on form as opposed to a task that is not as focused on form?
6. Is there a correlation between cohesive devices for the various tasks? If so, what

are the results of the correlations?

7. Is there a correlation between grammatical forms with relatively little cohesive value on the various tasks? If so, what are the results of the correlations?

Based on past research results (as outlined in the review of the literature in Chapter 2), this study proposed that subjects would use certain forms of grammar correctly when these forms are an essential part of a discourse or passage. Conversely, subjects would not demonstrate correct use of these same forms when they are not essential for meaning or "connectedness". Testing of those grammar forms, therefore, should involve a context where they are essential. In other words, it was predicted that subjects would demonstrate correct use of a point of grammar on one test but fail to use it correctly on a different test that did not require that point of grammar as a cohesive device. Different types of cohesive devices are used in texts of all lengths. This study investigated two grammatical forms which offer cohesion between sentences (direct object pronouns and articles). The study also examined the effects of two differing lengths of discourse: sentence and text.

It was also expected that subjects would be more successful in using noun plural markers and third person singular present tense verbs when subjects are focused on form. The tests in this study that focus more on form were the discrete point and cloze tests.

The following matrix (Figure 1) outlines the four tasks in this study with relation to their attention to form and the length of the discourse that the subjects were asked to produce:

Figure 1. Tests in relation to attention to form and discourse length.

| | | Attention to Form | |
|------------------|---------------|---------------------|------------------------|
| | | HIGH | LOW |
| Discourse Length | EXTENDED TEXT | Cloze Test | Paragraph Writing Test |
| | SENTENCE | Discrete Point Test | Written Responses Test |

Definitions

Halliday and Hasan, in Cohesion in English (1972), say that cohesion is realized in a text when one element in the text is interpreted by reference to another through one of the following five devices: reference, substitution, ellipsis, conjunction, and lexical cohesion. A cohesive device in grammar is one that is used to retain cohesion or "togetherness" in a discourse. For example, when telling a story, a character is introduced at the beginning and is subsequently referred to with pronouns until the referent for the pronoun becomes obscure. By using pronouns we are adding to the cohesion or "togetherness" of the story because we are assuming that the listener knows to whom the pronoun refers.

As opposed to pronouns, the use of third person singular -s or noun plural marker -s offer little cohesion because they do not have much discourse significance.

They merely show tense and number, not reference, substitution, conjunction, or lexical cohesion which are the basic groups of cohesive ties outlined by Halliday and Hasan (1976). This discussion will be expanded in the review of the literature.

Significance

The results of the present research are significant because they contribute to the theories of interlanguage, second language acquisition, and order of acquisition. The results will also help pinpoint differences in testing procedures so that teachers can choose tests where students will more accurately produce the specific points of grammar that the teacher wishes to test. Teachers and researchers will be able to design better testing materials to measure certain skills more reliably.

Summary

This study measured variability in ESL learners' performance in English by using four different instruments, which had two level of focus on form and two text lengths, and by focusing on four points of grammar. The study involved 28 high-intermediate adult learners. The study advanced the research done by Tarone in 1985.

A review of the relevant literature and further definitions of applicable terms can be found in Chapter Two. Chapter Three gives details on the methods used, a description of the instruments, and the scoring and statistical procedures. In Chapter

Four the results of the study and the answers to the research questions are presented. Chapter Five includes a summary of the study and its results, a discussion of how the study fits in with the literature, and the implications for teaching and further research. Letters to the subjects, copies of the instruments and the raw data can be found in the Appendices.

Chapter Two

Review of the Literature

Tarone's Variability Research

This study grew from Tarone's (1985) study which was reported in Language Learning entitled "Variability in interlanguage use: A study of style-shifting in morphology and syntax". The present study aims at investigating further some of the ideas that resulted from the original study of Tarone.

Tarone's study resulted in some interesting theoretical ideas. Tarone studied the English performance of 10 native Arabic speakers and 10 native Japanese speakers on six grammatical forms: third person singular present tense verb -s, the noun plural -s, articles, third person singular direct object pronouns, feminine pronouns, and third person singular subject pronouns. The present study examined the performance of a more general population of 28 subjects from a variety of language backgrounds. Most subjects involved in this study came from Central America, Eastern Europe, and Asia.

Subjects in Tarone's study were asked to do four tasks. The first task was a discrete point grammar test which became the basis for the one used in the present study. The second task was an oral description task where subjects described a

series of objects. The third was an oral narration where subjects watched a sequence of events on a video screen and had to tell the story orally. The last task was an oral interview with a native speaker that focused on the subject's field of study and future plans.

In the present study, the grammatical forms are the same as Tarone's with the exceptions of feminine and subject pronouns. Based on her results, Tarone advised omitting them from future studies.

Tarone classified the tasks in order of the assumed amount of focus on form: "In order of decreasing amount of attention expected to be paid to language form, the tasks are: test, interview, description, narration" (p. 379). She ranked the grammar test first because it hardly focuses on content at all. She notes, however, that there is no objective way to measure how much attention subjects are paying to form at any time. It is a variable that is out of the control of the researcher. For that reason, she uses the phrase "amount of attention expected to be paid to language form". In the present study, the ranking of amount of attention expected to be paid to language form would be low for the written paragraphs and the written answers in response to oral questions because subjects have to perform many tasks at the same time (listening, thinking, writing). Because subjects only have to fill in a word or change a sentence for the cloze and the discrete point grammar test it is expected that they would pay relatively high attention to form.

The outcome obtained from testing her sixth and last hypothesis resulted in the present study. The hypothesis reads:

In the style produced when the learner is paying the least attention to language form (the vernacular style), grammatical forms will be produced with least accuracy, and in the style produced when the learner is paying the most attention to language form (the 'careful' style), grammatical forms will be produced with most accuracy. (p. 376-377)

Her results showed that this hypothesis held for plural nouns and third person singular verbs. But, with regard to the subjects' production of the article and direct object pronoun, the opposite pattern occurred. For these two forms, subjects produced the least grammatical accuracy on the grammar test. She says that "these findings provide some evidence that second language users treated different sets of grammatical forms differently under identical style-shifting conditions" (p. 385).

Tarone further says:

These findings raise important questions about the possibility of measuring a learner's grammatical competence; perhaps researchers need to focus more on obtaining accurate assessments of learner performance on various measures before inferring much about the structure of underlying competence. (p. 385-386)

In her discussion, Tarone wondered about the possible causes of variation. She determined that some of the tests were not "trickier" than the others because subjects did not score poorly on all the grammatical forms studied. To investigate whether some of the test items were "trickier" than others, she conducted an additional study using 12 native speakers and 10 non-native speakers of English by

giving them a series of grammar tests. The second study showed that the first grammar test was not inordinately "tricky" in its assessment of articles and the direct object pronoun. In the second study, the subjects were given two tests. The first one was the same as the original test. On the second test, however, items were grouped according to what grammatical point they were testing and subjects were told what grammatical form to look for. This eliminated the possibility of subjects making careless errors. Both groups, native and non-native speakers, scored higher on the second test but they improved on all of the grammatical forms being studied. Therefore, Tarone concluded that the grammar test was not trickier in its examination of articles and direct object pronouns.

One explanation for interlanguage variability is provided by Krashen's Monitor Model. Krashen (1982) says that not all morphemes are produced more accurately in monitored tasks. Some morphemes are learned and others are acquired. The learned set are produced more accurately when monitored. The third person singular verb morpheme -s and the noun plural morpheme -s would be in the set of learned morphemes. Articles and the direct object pronoun belong in the acquired set and do not improve with monitoring. Krashen says that the ones that are learned are the ones with fairly simple rules while the ones that are acquired tend to be those with complex rules that cannot be easily memorized. Tarone says:

Whether or not one agrees with Krashen's "acquisition versus learning" explanation, one must acknowledge that the results of this study are consistent with the claim that second language learners treat different sets of IL forms

differently under style shifting conditions. (p. 390)

Tarone sees some problems with the Monitor Model explanation, and she asks:

...why should learners be less accurate in their grammatical judgements of articles and direct object pronouns than they are in their use of these structures in vernacular oral discourse? The Monitor Model cannot explain why learner performance with articles and direct object pronouns actually improved as tasks required less and less attention to language form. (p. 390)

Tarone then developed her own explanation. She says there is at least one added variable to the problem. The different tasks seem to have a differing amount of attention to form but simultaneously they elicit different types of discourse. She says the discourse varies in its textual cohesiveness. The grammar test she used is focused on form but consists of unconnected sentences; the narrative is very cohesive and the speaker can extend it for as long as he/she wishes. The present research is designed to shed more light on the influence of this additional variable: textual cohesiveness.

In a footnote, Tarone notes that the various types of discourse have differing degrees of speaker control. She says that this also may account for some of the shift or variability in style. This variable will not be explored in this research because there must be a limit set as to what can be investigated in one study. The present research is limited to texts of two discourse lengths and to texts with two relatively different levels of focus on form. The amount of speaker control may be related to

focus on form. It may well be that as subjects have more control over their choice of language, they would focus less on form because they would have other aspects of communication to think about like message, spelling or pronunciation, and audience. It might be expected that subjects would have the most control of choice of language in the paragraph writing and the least amount of control in the cloze and discrete point grammar test.

Tarone says that both the article and the direct object pronoun are very important in establishing cohesiveness in a discourse. The other two forms are not. The article and direct object pronoun are both involved in marking reference. Reference is an important part of discourse. Tarone suggests that it is because the maintenance of reference is so important in some types of discourse, subjects focused on it. She suggests a means of testing this hypothesis:

One way to test this possibility would be to have subjects in a study such as this complete two kinds of grammar test: one a sentence-level test such as [the discrete point grammar test], and the other a written cloze test which might provide an extended piece of discourse with obligatory contexts for article, direct object pronouns, and third person singular present tense morphemes left blank. (p. 393)

In this type of test, one would expect the article and direct object pronoun to be supplied with more success on the cloze than on the discrete point grammar test. It is this relationship, among others, that the present research attempts to analyze.

Tarone concluded that style shifting in interlanguage may be more complex

than predicted and that future research should examine different variables that may cause the shifts. The present research was initiated to examine the variables of discourse length and attention to form. Four tasks were studied; two at the paragraph level (paragraph writing and cloze) and two at sentence level (written responses and discrete point). These four tasks can also be compared on the expected amount of attention paid to form. For the discrete point and cloze tests, subjects are expected to pay relatively more attention to language form than they do in the written paragraphs and responses.

It is important to understand what some of the causes of style shifting are in interlanguage. This relates to theories of language learning and to practical aspects such as test design.

Tarone says

...as tasks elicit discourse which is increasingly cohesive, some grammatical forms (e.g., articles) may improve in their accuracy rate while others (e.g., third person singular -s) may not. It is clear that this possibility must be tested in future research, as it bears directly upon evidence which has been cited in support of several theoretical positions in the field of SLA, including the Monitor Model (Tarone, 1985, p. 393).

Most of the differences between the present study and Tarone's were as a result of suggestions made by Tarone in her study. For example, the cloze paragraph test in this study is included on her recommendation, the feminine and subject

pronouns have been exempted and the study was designed to examine focus on form and discourse length.

Tarone's Earlier Writing

In earlier writing, Tarone (1979) said that interlanguage (IL), like all natural human languages of interaction, varies with subtle shifts in situation, just as a chameleon changes colour as its surroundings change. She says that "we seem to ignore this characteristic when we set up and report experimental procedures" (Tarone, 1979, p.181).

In the same article, she reviews Labov's five methodological axioms which relate to research in linguistics. They are style-shifting, attention paid to speech, vernacular, formality, and good data. These axioms not only relate to speech, but they are all relevant to written language because they are primarily about the nature of language, including interlanguage. Style-shifting, attention paid to speech and formality are the three axioms that best relate to the present research.

The most relevant axiom to the present study is style-shifting. "There are no single-style speakers," Tarone quotes Labov (p. 182). She expands by saying that just as every speaker shifts linguistic and phonetic variables, so writers make variations in their writing as the social situation, audience, length of written passage, and topic change. The shift in length is one of the variables under investigation in the present study. Part of the study is to determine whether a shift in the length of the text leads to a shift in style, or if the two are unrelated.

Axiom two is about attention to form. Tarone quotes Labov: "It is possible to range the styles of a speaker along a continuous dimension defined by the amount of attention paid to speech" (p. 183). This suggests that attention to form is not an on/off matter. It is a matter of degree. The present research has classified the cloze test and the discrete point test as high attention to form because it is expected that subjects will be focusing on specific detail and on one item at a time. The other two tests demand many other skills (listening, memory, spelling, word order knowledge, etc.); it is expected that subjects will not be able to focus on grammatical form as closely. The attention to form continua will be evident in this study.

Axiom number four is formality. It reads: "When a speaker is systematically observed, a formal context is thereby defined, and the speaker pays more than the minimum amount of attention to speech" (Tarone, 1979, p. 186). Even though this is about speech, axiom four is true of writing, the focus of this research. Subjects will have a definite feeling of being observed because of the unusual circumstances they are in. Many of them will have never been involved in a formal experiment before. The classroom, consent forms, timed responses, and researcher all contribute to a formal setting, and subjects will pay more than a minimum amount of attention to their grammar. However, this will not make the data unreliable. The data collected in this research will help in the design of formal tests and is in no way attempting to examine unmonitored writing.

Defining Cohesion and Coherence in a Text

Part of the present research is to investigate whether length of text has any bearing on how learners apply rules that relate to cohesiveness within a text. Before that can be done, the terms involved need to be defined. There has been some debate in the literature as to what a text is and what makes it cohesive and coherent. Also debated is what role length, vocabulary, background knowledge, and other factors play in any definition of a text.

In Cohesion in English (1976), Halliday and Hasan say that "the word text is used in linguistics to refer to any passage, spoken or written, of whatever length, that does form a unified whole" (p. 1). This unified whole is a semantic unit, which is "a unit not of form but of meaning" (p. 2). In their words: "A text does not consist of sentences; it is realized by, or encoded in, sentences" (p. 2).

Halliday and Hasan propose that length makes no difference to the cohesive nature of a text. According to their definition, single clauses can be just as cohesive as longer texts. They would say that length is not a differentiating factor. They also say that unity is obtained by using the five devices that they have identified as being cohesive and that these devices bring coherence or semantic unity. These devices are: reference, substitution, ellipsis, conjunction, and lexical cohesion. A cohesive device in grammar is one that is used to retain cohesion or "togetherness" in a discourse. For example, when telling a story, a character is introduced at the beginning and is subsequently referred to with pronouns until the referent for the pronoun becomes obscure. By using pronouns we are adding to the cohesion or

"togetherness" of the story because we are assuming that the listener knows to whom the pronoun refers.

Halliday and Hasan say that "the expression of the semantic unity of the text lies in the cohesion among the sentences of which it is composed" (p. 293). They continue:

Typically, in any text, every sentence except the first exhibits some form of cohesion with a preceding sentence, usually with the one immediately preceding. In other words, every sentence contains at least one anaphoric tie connecting it with what has gone before.

(Halliday and Hasan, 1976, p. 293).

This indicates that the first sentence of a text is unique because it does not have any sentence preceding it with which to cohere. It is the foundation for the rest of the passage and presents only new information. The single answer sentences in this study were designed to hold the same characteristics as a first sentence because they are written responses to an utterance. It is important to have the single sentence answers in this study because they draw primarily on sentence level grammar, like the discrete point test, but in contrast to the discrete point test, they pay a relatively small amount of attention to form. The subjects think about many other aspects of language like spelling, content, listening, and memory, not just grammar, when they are writing the answers.

Not all scholars agree with Halliday and Hasan's ideas. According to Carrell (1982), Halliday and Hasan have come under criticism from many including Feathers,

(1981) and schema-theorists like Morgan and Sellner (1980). Carrell maintains that Halliday and Hasan have confused the cause and the effect. Halliday and Hasan say that cohesion is the cause of coherence when, according to Carrell, they should be speaking about coherence being the cause of cohesion. Halliday and Hasan propose that the linguistic features that they have identified are the cause of coherence or texture. Carrell says that

cohesion is not the cause of coherence; if anything, it's the effect of coherence. A coherent text will likely be cohesive, not of necessity, but as a result of that coherence. Bonding an incoherent text together won't make it coherent, only cohesive. (p. 486)

The theories about coherence and cohesion relate to the present research. For our purposes it is not important which is the cause or result because we are looking at the combined effect they have on the learners' interlanguage grammar. The important concept is that they co-exist in any text and that they contribute to variations in interlanguage.

Competence vs. Performance

Sometimes "competence", as tested through the grammar test, does not equal the students' "performance" which might be seen in less monitored communication. This is significant to the current research because, for example, tests using cohesive discourses have been shown to give higher student results in the use of articles and direct object pronouns than traditional discrete point grammar tests (Tarone, 1985).

Krashen's Monitor Model (1982) states that the monitor is used by second language learners in communication when the following three conditions are met: they have enough time, they are "thinking about correctness or focused on form", and they know the rule. It is the variable of "focused on form" that Tarone was investigating in her study. She wanted to know the influence of performance variance with tasks which range from very focused on form to less focused on form. In the present research, which is exclusively based in writing, the variable of the length of the discourse was added by having two tests which were of paragraph length (written paragraphs and cloze) and two that were of sentence length (responses and discrete point). Length of discourse was added on Tarone's recommendation because some aspects of grammar (like the article and direct object pronouns) help an extended text communicate meaning because they add cohesion. Subjects are expected to be more focused on the form of a paragraph in the cloze and written narrative and thus use the cohesive grammatical points under study with greater success in those places. They may also be more concerned with the form of a sentence in the discrete point test and the single sentence writing and thus focus more on number (plural/singular) and subject verb agreement.

In a chapter entitled "Metalinguistic dimensions of bilingual language proficiency" in a book about bilingual children, Bialystok (1991) identifies two kinds of variability in language. She dichotomizes variability in much the same way as Krashen. The first type she identifies is cognitive variability. This is expressed diachronically over periods of time. She says that

as learners come to master new forms, there is a period of learning and uncertainty where all the constraints are not yet in place, and sometimes the forms are used correctly but because the conditions of application are fuzzy, errors occur. (p. 137)

She also says that this kind of variability is very easily and objectively measured because it is simply compared to the target language. This would be similar to learners' competence or how they are moving along in their interlanguage. It is a reflection of the learners' understanding of the target language.

The second type of variability that Bialystok identifies is performative. This type is reflected in variations in situation. She states:

This variability is synchronic: at one point in time a learner can use the same form correctly and incorrectly, depending on the context of use....Thus, when the context for language use leads the learner to direct attention to language forms, the forms are more likely to be produced correctly than when the situation has placed a premium on attention to meanings (p. 137).

Native speakers as well as second language learners use this second type of variability. Often speakers are so concerned about what they are trying to say that they do not focus, or are not able to focus on form, as much as is needed. She says that "in certain situations, it seems more propitious to pay attention to how something is said than to what is said" (p. 137).

The main difference between the two types of variability is that diachronic variability shows changes in the learners' understanding of or analysis of the linguistic

system whereas synchronic variability shows changes in their attention to aspects of the language. She summarizes her discussion by saying that "all language users are subject to synchronic variability. Only children and second-language learners are subject to diachronic variability" (p. 137).

In the present study, the focus is on synchronic variability, or as Krashen would say, performance. This is the type of variability that all speakers use from time to time. Even though they are all high-intermediate learners, each subject in the study will be showing a different and individual level of cognitive variability because they are each at a different stage of their interlanguage formation. However, their synchronic variation will be controlled to some extent by the four tasks set out before them.

Widdowson (1978) presents another perspective when he says that producing complete and correct sentences shows our knowledge of the language or of correct usage. But, he says, producing correct sentences is not the primary purpose of language. Generally language is used for communicating something.

That is to say, we are generally called upon to produce instances of language use: we do not simply manifest the abstract system of the language, we at the same time realize it as meaningful communicative behaviour. (p. 3)

Other linguists and scholars have identified the distinction between use and usage in much the same manner but have used different labels. Widdowson says the distinction between use and usage is related to

de Saussure's distinction between langue and parole and Chomsky's similar distinction between competence and performance. It is important to make clear what this distinction is. The notion of competence has to do with a language user's knowledge of abstract linguistic rules. This knowledge has to be put into effect as behaviour, it has to be revealed through performance. When it is put into effect through the citation of sentences to illustrate these rules, as is done in grammar books, then performance yields instances of usage: abstract knowledge is manifested. (page 3)

The subjects involved in the present study, along with most intermediate learners of English, have good language use; they communicate well in many of the tasks they are required to do. It is their usage of language that shows variation and is in the process of becoming closer to the target language.

To sum up, Widdowson says

Usage, then, is one aspect of performance, that aspect which makes evident the extent to which the language user demonstrates his knowledge of linguistic rules. Use is another aspect of performance: that which makes evident the extent to which the language user demonstrates his ability to use his knowledge of linguistic rules for effective communication. (page 3)

The present study examines learners' usage of English. It will measure variations in learners' interlanguage as they apply the rules they know to different tasks.

Language Testing Research in the 1980's

In a review of the linguistic testing research in the past decade, Bachman (1991) says that of late, the view has been that "language proficiency is multicomponential, consisting of a number of interrelated specific abilities as well as a general ability or set of general strategies or procedures" (p. 673). Bachman continues to say that as the views on testing procedures have evolved, models of test performance include components of language ability and characteristics of test methods. This makes it possible to comment on actual performance and underlying abilities as well. Further research should apply the theoretical models of language proficiency to the design and development of language tests.

The present research will add to the work on language testing of the 1980's because it looks at the interrelation among grammar points, focus on form, and length of text. It measures a subject's performance on four tests and this variability in performance may give some indication of language ability and how ability is affected by changes in task. For example, perhaps some of the grammatical forms will improve as subjects focus on form and others will not. This information will tell us that being focused on form is one of the factors at work causing variability.

The work in the 1980's also researched and progressed in the area of the effects of the method of testing on test performance. Bachman (1991) states that research demonstrated that the kind of test tasks used affect test performance as much as the abilities measured.

Related Research

Two other studies that relate to the present research were reported about ten years apart. In the first, Huebner (1979) reports on a longitudinal study of the development of the article system in a subject's interlanguage. He analyzed the results using the conventional order-of-acquisition method and the dynamic paradigm model proposed by Bickerton (1975). Huebner defines the dynamic paradigm:

It assumes that language is systematic but dynamic, and that variation is the precursor of change; it also assumes that forms are introduced in one linguistic environment, then spread to other linguistic domains as the speaker revises his hypotheses about the language. To discover what these environments are, all occurrences of the form in question (not just those found in environments in which its Standard English source morpheme would be obligatory) must be examined. (Huebner, 1979, p. 22)

According to Huebner, order of acquisition research fails to capture several important aspects of interlanguage. It does not show the regularity and systematic use of interlanguage structures before they are replaced with Standard English and it does not deal with the variability in interlanguage at one time in different contexts. It does not account for learners reverting back to a non-Standard English form after they have proven their acquisition of the standard form.

The present research is an attempt to fill the gaps left by order of acquisition theory and research by showing variability in written interlanguage at one time in

four contexts. It also will attempt to offer some explanation for the fact that learners tend to "revert" back to non-Standard English. The explanation may be that they are not really forgetting or regressing but rather paying less attention to a certain form on some tasks because it is not necessary for cohesion in a text.

The other related study, an ERIC document, is entitled "The relation of task to performance in testing verbs" by Gradman and Hanania (1988) who investigated the variability of language performance of 213 subjects on different types of testing tasks. They defined the tasks used as either global or discrete-focus. They used three tests (cloze, multiple-choice, and fill-in-the-blank) to measure learner's knowledge of five verb forms. They found that the learner's performance varies depending on whether the learner's attention is focused on meaning/content (cloze) or on form (grammar based tasks like fill-in-the-blanks).

If discrete test items that focus on linguistic form invoke conscious knowledge of rules that may not have become part of the productive system of the learner, then global tests may reflect more accurately the learner's ability to apply those rules in communicative situations.

(Gradman & Hanania, 1988, p.2)

According to Gradman and Hanania, the results showed a clear pattern of variability, with students performing best on the multiple-choice task and least well on the cloze task. Differences in performance also seemed to be closely related to the recognition (multiple choice test) versus production (cloze test) features of the elicitation task.

Their study is important to the present research because the present research will also look at learners' conscious knowledge of English grammar (focus on form) and at their language production in longer, written communicative situations (focus on meaning). The present research will go further than just looking at how learners apply rules in certain situations; it will try to distinguish a pattern for how the interlanguage rules are applied.

Other Remarks

It is important to build upon Tarone's (1985) research for two important reasons. The first one is that Tarone's research report offers suggestions for further investigation. She admitted that there were still questions left unanswered and changes to the method to be made. Secondly, her study was limited to only 20 subjects who spoke either Arabic or Japanese as a first language. A study of that size and scope can provide researchers with valuable information but it would be foolish to base new theories upon it.

Replication is an important part of any rigorous research field. Santos (1988) believes that the field of applied linguistics needs to allow itself to be put on trial in this way. He also says that "replication is an excellent way for graduate students to gain experience in research and to share their results with others, as do graduate students in the sciences as a matter of course during their training" (p.701).

Chapter Three

Method

The Subjects

The subjects in the present study were 28 upper intermediate adult English as a Second Language learners. They ranged in age from about 20 to 55 years old with almost an equal number of male and female subjects. They were enrolled in two classes at the Red River Community College Language Training Center in downtown Winnipeg. One of the classes was specifically for students with a background in science and technology and the other class consisted of students from a variety of professional backgrounds who were learning general ESL. The first language background of the students was mixed. Most subjects came from Central America, Eastern Europe, and Asia.

The test was administered close to the beginning of a new semester; the subjects had been in their classes for less than a month. Before being placed in the classes, subjects had to complete a language placement test involving various aspects of language competency. The resulting classes were fairly homogeneous as far as level of language is concerned.

All subjects were given two letters (See Appendix A). The first outlined the

purpose of the study and the rights that the subjects have. Only those who volunteered were involved in the study. As per the regulations outlined by the University of Manitoba Ethics Committee, subjects were asked to sign a letter of consent. This second letter stated that they could withdraw from the study at any time without penalty and that all results from the study would be pooled so individual subjects would remain anonymous. Subjects also were able to indicate whether they wished to receive a summary of the results of the study. Nineteen of the subjects requested follow-up information.

The Time Requirement

Subjects were asked to give approximately two hours to the study. All of the data collection was completed in one sitting. The actual time required was less than one and a half hours and varied slightly from subject to subject. The time allotted to each activity was as follows:

| | |
|--------|--|
| 20 min | Introduction, explanation, letter of consent and questions |
| 30 min | Paragraph writing |
| 20 min | Written responses (to oral questions) |
| 10 min | Cloze |
| 15 min | Discrete point test |

Description of the Instruments

A series of tests (see Appendices B-E) was administered that were designed to elicit information about subjects' performance in the production of:

- a) third person singular present tense morpheme (-s)
- b) regular noun plural morpheme (-s)
- c) articles (a, an, the) and determiners in the case of the written paragraph (this, that, these, those)
- d) direct object pronouns (me, you, him, her, one, it, us, them)

These points of grammar were assessed in the following tests in the study:

- a) written paragraph
- b) written responses to oral questions
- c) cloze
- d) discrete point grammar test

The written paragraph was administered by having subjects listen to a taped passage about the process that a cheque goes through before being debited from a bank account. During the listening time, a diagram showing the journey of the cheque was shown on an overhead screen and subjects were encouraged to take notes during the talk on paper provided. Subjects were then asked to write about what happens to a cheque in their own words. They could refer back to the diagram and their notes as they did so. Subjects were not judged on spelling and were only evaluated on the basis of the four grammatical points under study (see Appendix B).

The second test included a series of unrelated oral statements followed by questions. The subject matter of the questions was general. The statements and questions were audio taped by native speakers of English. Subjects responded to the questions by writing in phrase or sentence form. Again, subjects were not judged

on spelling and were only evaluated on the basis of the four grammatical points under study (see Appendix C).

The modified cloze test had twenty-six empty spaces. For each of the four grammar points under study, there are six spaces. There are also two spaces that are not part of the study's focus. They were included as distracters. The paragraphs have been adapted from English with a smile by David Krulik and Barbara Zaffran (see Appendix D) and were used with permission.

The discrete point grammar test was adapted from Tarone's original study. Subjects were required to read 30 sentences and correct all sentences containing grammatical errors. The test included six errors for each of the four grammatical items under investigation. It also contained six correct sentences that were distributed randomly throughout the test (see Appendix E).

When subjects had completed the four tests they handed in their papers and were free to go.

Scoring Procedures

Two copies were made of each test and each copy was independently marked by a native speaker of English who was an experienced and trained ESL teacher. In all cases where the acceptability of a response was questionable, the two markers discussed the case and reached an agreement based on their discussion. There was discussion on less than five percent of the test items.

In all tests, the number of errors and correct responses was totalled to obtain

the total number of obligatory contexts for a given point of grammar. This number was used as a denominator and the total number of correct answers was the numerator. If, for example, a subject was required to use an article or determiner six times in her writing and did so correctly four times, then her score is 4/6 or 66% correct.

The Written Paragraph Test

The written samples obtained were analyzed and special attention was given to the grammatical points under focus in this investigation.

Verbs in the third person singular were judged correct if the -s suffix was present. If the suffix was missing, the subject was given an error. For example, "The hotel deposit the cheque." (Subject #8) Because the -s suffix is missing on the verb, the subject received an error. Likewise, if the suffix was used where it was not required, the subject was given an error. An example would be "About 1.5 billion cheques are uses in Canada." (5) This verb is passive and does not require the -s suffix. To determine the subjects' final score for the test, the number of correct responses was put over the total of correct and incorrect third person present tense verb responses.

The procedure that was used for plural nouns was much the same. For every plural noun that was used correctly, subjects received a point. For every noun that was marked with the -s suffix that should have been singular, subjects received an error. Here are some examples: "Business transaction in Canada use 0.5 billion

cheque a year. Cheque are used to pay bill and employees." (9) These sentences were corrected to read: "Business transactionss in Canada use 0.5 billion cheques a year. Cheques are used to pay bills and employees." In this example the subject used the plural marker once correctly and omitted it 4 times. Therefore the score would be 1/5 or 20%.

For every article or other determiner that was correct, subjects received one point. If articles were omitted where they were necessary, then the subject was given an error. If articles were inserted where they were not necessary then they were also given an error. If subjects used "a" or "an" in an inappropriate place, they also received an error. For example, "A cheque is a order of payment..." (3) The subject should have used "an" and so they received an error. An example of the scoring procedure can be seen in this sentence: "First 5 numbers are branch of bank, sixth number is the name the bank and seventh number is the account number." (4) The sentence should read "The first 5 numbers are the branch of the bank, the sixth number is the name of the bank and the seventh number is the account number." To calculate the subject's score, the number of correct responses was put over the total of correct and incorrect responses. In our sample sentence the score would be calculated taking into account the 3 correct articles and the 5 omissions. This gives a score of 3/8 or 38 per cent.

In the case of the direct object pronoun, responses were considered correct if the direct object pronoun was used in contexts that required it. If a full noun was used instead and if the sentence would have been more acceptable with a pronoun,

the response was marked incorrect. For example, one subject wrote "Once the cheque is paid they send the cheque by air mail to the branch bank." (25) In this case it would be more acceptable to use the pronoun "it" because the writer has just used the full noun "the cheque". The writer is being redundant. The purpose of pronouns is to reduce this type of redundancy.

If subjects used a transitive verb without a direct object, they were given an error. For example, "Then it sends to the Royal Bank in Winnipeg." (8) It should read "Then it sends it to the Royal Bank in Winnipeg." In this case, the object pronoun was missing and marked incorrect. If subjects used the wrong pronoun in the direct object slot they received an error. For example, in the sentence "They are printed with the necessary information on it", (24) "it" should be "them".

Written Responses to Oral Questions Test

In this test, subjects were told that they were not required to answer in complete sentences. They could choose to answer in phrases or clauses. (Because subjects could respond in either phrases or sentences, this test will be called the response test as opposed to the sentence test.)

An example of an item testing for the third person singular present tense verb is the statement "Katy thinks her boyfriend is wonderful and talks about him all the time." This was followed by the question "What does Katy do all the time?" The correct answer here would be "talks about her boyfriend" or "She talks about her

boyfriend all the time." Subjects who had the -s suffix on the verb received a correct point. Those who omitted it were not given a point.

Plural nouns and articles were scored in the same way. If the statement was "To bake an apple pie you need six apples and to bake an apple spice cake you need three" and the question following it was "What do you need to bake an apple pie?" then a correct response would be "six apples" or "You need six apples." If the subject failed to mark the plural noun it would not be correct.

For items testing articles, an example statement is "I'm sure Maria will get the apartment instead of Henry because she knows the landlord." This was followed by the question: "Why will Maria get the apartment?" One correct possibility is "because she knows the landlord." Subjects that did not have the article did not get the point.

In the case of items measuring the use of direct objects, the subjects were scored in a very controlled manner. Because the questions always included the full noun as the object of the verb, subjects were required to use the pronoun form. This is a rule of English grammar and rhetoric and was found to hold true in an informal pilot study of this test with native speakers. The pilot study found that most answered these questions in phrase form using pronouns wherever possible. Take, for example, the statement "If the workman finds any more cracks, he will have to destroy the wall." This was followed by the question "What might the workman have to do to the wall?" Because the question uses the phrase "to the wall" the correct response should be "destroy it" or "He will have to destroy it." Subjects who

answered "Destroy the wall" received an error because the answer is redundant for this context.

The Cloze Test

The scoring of the cloze test used the contextually appropriate method because of the nature of the grammar points under question. This means that the exact word was not demanded and that correct substitutes were accepted. For example, if a third person singular verb was required in one position, then any third person singular verb that fit the context was accepted. The same is true of plural nouns. In some places, singular nouns and mass nouns were accepted in plural positions if the context fit. For example, where a sentence reads "...through the years", if a subject put "...through the ordeal" it would be marked correct. A response like "...through the life", however, was not considered correct because native speakers do not use "life" with the article "the" in such a way.

In spaces that require an article, any article that fit the context of the whole reading was accepted. In a case where the choice in articles changed the meaning of the sentence and both choices were grammatically correct on the sentence level, then only the selection that corresponded to the meaning of the paragraph was considered the appropriate choice. For example, in the sentence that read, "I am _____ new teacher" the word "a" is grammatically correct but does not fit the context of the paragraph. Because only "the" and "your" fit the context of the paragraph,

blanks that were filled with "a" were marked incorrect (See Appendix D).

Direct object pronouns are different from the other grammatical categories. It is essential that subjects use pronouns in these spaces because the full noun was already used in positions prior to the blank space. For example, when subjects read "Later, a friend asked them how they managed to stay happily married through the years. Joe answered:" and then subjects put "Stella agreed with Joe", it was marked incorrect because it is not necessary to put the proper noun there for the discourse. It makes more sense to say "Stella agreed with him." because we have just used Joe's proper name. It is part of the nature of discourse to use direct object pronouns and it is this point of grammar that the test set out to examine. There are several cases where more than just one specific pronoun is correct. In those cases, all contextually appropriate pronouns were accepted.

The Discrete Point Test

The discrete point grammar test was scored in the following manner. Sentences that needed correcting and that subjects corrected successfully were counted as correct. If the subject overlooked an error and failed to correct it, it was considered incorrect. If the subject attempted to correct a sentence but the "correction" was incorrect, it was counted as incorrect.

The instructions indicated that sentences contained no more than one error, however, if subjects made more than one correction to a sentence when one of the corrections was the grammar point that the sentence was testing and it was corrected

successfully, it was considered correct. The other "correction" was overlooked. The reasoning behind this is that subjects successfully demonstrated their use of a point of grammar under investigation and they should receive credit for it.

Sentences that were correct to begin with were put in as distracters and did not count in the study. The reason for their use was to help identify which of the incorrect sentences subjects found acceptable. If they had not been included, subjects might have searched longer and harder for the mistake in each sentence. As it was, they read the sentences and knew that some of them were correct so that if the sentence sounded right to them, they left it as it was. This allowed some of the incorrect sentences to be passed over and gave a clearer picture of what subjects found acceptable.

Statistical Procedures

To begin this section, the eight hypotheses upon which the data were examined will be given. The general statistical procedure for treating the data will follow with a discussion of the treatment for each of the hypotheses.

Hypotheses

In order to find answers to the research questions posed in Chapter One, hypotheses were formulated. The following hypotheses, stated in the form of null hypotheses, were proposed to guide the examination of the data:

1. With regard to the third person singular present tense morpheme (-s),

second language learners perform no differently in writing on discrete point grammar exercises, cloze exercises, short responses, and paragraphs.

2. With regard to the regular noun plural morpheme (-s), second language learners perform no differently in writing on discrete point grammar exercises, cloze exercises, short responses, and paragraphs.
3. With regard to articles (a, an, the, 0) and other determiners (this, that, these, those.), second language learners perform no differently in writing on discrete point grammar exercises, cloze exercises, short responses, and paragraphs.
4. With regard to direct object pronouns (it, him, her, me, etc.), second language learners perform no differently in writing on discrete point grammar exercises, cloze exercises, short responses, and paragraphs.
5. When comparing the results from the tests that consist of extended text (cloze exercise and paragraph writing) to those that are only of sentence length (discrete point and short responses), there is no difference in how subjects perform with regard to each of the four points of grammar.
6. When comparing the results from the tests that pay high attention to form (discrete point grammar and cloze exercises) to those that pay low attention to form (short responses and paragraph writing), there is no difference in how subjects perform with regard to each of the

four points of grammar.

7. When comparing subjects' performance on each of the tests, there is no relationship between success in using articles/determiners and success in using direct object pronouns.
8. When comparing subjects' performance on each of the tests, there is no relationship between success in using plural nouns and success in using third person singular present tense verbs.

General Procedures

The first step in looking at the data was to present it in table form (see Table 1 in Appendix F). The table shows the number of correct responses over the number of opportunities for using that particular point of grammar. Then this raw data was converted into percentages and transformed using an arc-sine transformation. The benefit of the percentage data is that it shows all scores out of 100 so that they can be easily compared. Multivariate statistical tests could not be calculated using the raw data because it was considered non-normal based on the size of the sample and the distribution of the data. The purpose of the arc-sine transformation is to produce a reexpression of the data in different units. The new units provide more natural expressions of the characteristics being studied. These three sets of data (raw, percentage, and transformed) became the basis for the statistical analyses that followed.

Box plots were made using the scores in percentages. One box plot graph was

made for each of the tests showing the grammar scores obtained (see Figure 7, page 70) and one for each of the grammar points showing the scores that each test received (see Figure 6, page 66). In all, eight box plot graphs were made.

Tarone used line graphs to display her data, but box plots were chosen in the present research because they not only show the mean (like Tarone's line graphs) but they also show the median and range of scores.

Testing the Hypotheses

One way to analyze the data to test the first four hypotheses could have been to look at each subject and how he or she performed on each of the four tests in each of the four points of grammar. This would give 16 independent observations for each subject. This strategy would not take into consideration the interaction between each test and the correlations between them. For example, a subject who does very well on the written test will probably do well on the response, cloze and grammar tests too. So the relationship between tests needs to be taken into consideration. The relationship between subjects also needs to be taken into consideration. If subjects 3, 4, and 5 do well on the first test and poorly on the second, it may be because the first test is easier than the second and so most subjects will do better on it than on the second. All of these relationships need to be addressed. James Dean Brown (1988), in a book on Second Language Learning Research, warns about some of the dangers of using an analysis that does not take

all of the interaction between variables into consideration:

A major pitfall found in language studies is that two or more dependent variables are analyzed separately as though they are independent of each other within a given study when they are in fact related. If you find this situation, there may be major problems with the results and with interpreting them. (p. 176)

Therefore, instead of treating the observations as 16 independent observations, they were considered to be a vector of 16 observations on one subject. This approach overcomes the pitfall that Brown warns about. Multivariate analysis, specifically the Wilks' Lambda, allows for the consideration of the correlations between variables. James Dean Brown (1988), says that

Multivariate analyses are a complex group of statistical approaches that are used when two or more dependent variables are to be considered simultaneously within a given study. They may be applied with one independent nominal variable or more than one. (p 175)

In order to determine where the greatest differences lie in hypotheses 1 through 4, two univariate multiple comparisons were done on the data. They were t-tests (Least Significant Difference) and Duncan's Multiple Range Test. Both of the tests were automatically generated by the same computer program and because they slightly differ from each other they were both used rather than choosing one. The tests used the means, in percentages, of the subjects' results. These tests support the conclusions that can be visually made by looking at the box plots, and they add

valuable verification.

Hypothesis five compares the results from the extended texts with the sentence length tests. In order to test this hypothesis, the combined data from the paragraph test and the cloze test (extended texts) were compared with the combined data from the written response test and the discrete point grammar test (sentence level texts). The comparison was made using a univariate analysis of variance (ANOVA).

Hypothesis six compares tests that pay relatively high attention to form with those that pay a lower attention to form. Hypothesis six was tested in much the same way as hypothesis five except in this case the results of the paragraph test were grouped with the results of the response test (low attention to form); these results were compared with the combined results from the cloze test and the discrete point grammar test (high attention to form). Again, the analysis of variance was used.

To test the correlations for hypotheses 7 and 8, Pearson Correlation Coefficients tests were done ($H_0: \rho=0$). This test is a measure of linear relationship between two variables and as such can be used to test existence of a relationship. It is based on a calculation of the variances for each dependant variable separately as well as their tendency to vary together.

Scatter plots were made for the statistically significant correlations relating to hypotheses seven and eight. A scatter plot is a graphic representation of data showing how scores on two tests or for two forms relate to each other. The scores for the subjects in this paper are shown on the graph by letters. An "A" indicates that one subject received the scores presented. A "B" represents two subjects and so

on. In a few cases, five subjects received the same scores ("E"). All scores are in percentages.

In all, 256 correlations [4 tests x 4 grammar points x 4 tests x 4 grammar points] were made. Many of the correlations produced were not statistically significant because there was little or no relationship between scoring well on one form and scoring well on another form and test. Others were statistically significant but were not included in the results because their inclusion would lead to the pitfalls as outlined by Brown (1988).

Chapter Four

Results

Summary

In order to describe the variability found in learners' interlanguage, this study focuses on four points of grammar and four different tests. The grammar points are as follows: third person singular present tense morpheme (-s), regular noun plural morpheme (-s), articles, and direct object pronouns. The instruments in this study are: a discrete point unconnected grammar exercise (single sentences), a modified cloze exercise (extended text), a series of oral questions to which students respond with short written phrases or sentence answers (single sentences), and a written paragraph assignment (extended text).

The instruments were administered to 28 high-intermediate ESL students from various language backgrounds. The instruments were designed to determine if success in the four grammatical forms had any relationship with the discourse length of the text (single sentence or extended text) and/or to the amount of attention paid to form. In order to investigate the relationships involved, research questions were asked and hypotheses were proposed. The following chapter presents the results of testing the hypotheses and the answers to the research questions.

Testing the Hypotheses

Hypotheses 1 to 4 were analyzed in the same manner because they each hypothesize about the same tests in the same way but relate to a different point of grammar. In the testing and analysis of these hypotheses, observations with missing values were not included. (Missing values occurred in the written paragraph test because there was no way to insure that subjects used all of the grammar points under study. If a subject did not use one of the forms under study, the score became 0/0 and these scores could not be used in the analysis.) The level generally considered to be significance is $p < .05$.

Hypothesis 1

The first hypothesis that this study set out to address, stated in the form of a null hypothesis, is as follows:

With regard to the third person singular present tense morpheme (-s), second language learners perform no differently in writing on discrete point grammar exercises, cloze exercises, short responses, and paragraphs.

The first test used was the Wilks' Lambda multivariate test. Based on the 27 observations that were not 0/0, the hypothesis can be rejected because a significant difference of $p = 0.0311$ was found in the subjects' interlanguage. (See Table 2, page 47)

Further tests were done to see where those differences lie. These tests were Duncan's Multiple Range Test and t-tests (Least Significant Difference). The tests

Table 2

Wilks' Lambda Multivariate Analysis of Variance Results for Four Grammatical Forms

| Grammatical Form | p Value |
|------------------------|----------|
| 3rd Person Sing. Verbs | 0.0311 * |
| Noun Plural | 0.0185 * |
| Articles | 0.0006 * |
| Direct Object Pronouns | 0.0001 * |

Note: Reject H_0 : $|R| = 0$ when $p \leq 0.05$. * = significant

used the means, in percentages, of the subjects' results. These tests support the conclusions that can be visually made by looking at the box plots (see Figure 7, page 70), and they add valuable verification. (See Table 3, page 48.) In the case of the third person singular, both Duncan's and the t-test showed that there were two groupings of tests that showed similar results. One group was the paragraph (with a mean score of 72.2%), discrete point (65.5%) and cloze tests (63.1%) and the other was the discrete point (65.5%), cloze (63.1%) and the response tests (56.0%). This shows that the paragraph (72.2%) and response (56.0%) tests had little similarity in means.

Table 3

Results of Duncan's Multiple Range Test and T tests (LSD) for 3rd Person Singular

| Test | Mean | Grouping |
|-------------------|------|----------|
| Paragraph Writing | 72.2 | A |
| Discrete Point | 65.5 | A B |
| Cloze | 63.1 | A B |
| Written Response | 56.0 | B |

Means with the same letter are not significantly different.

Hypothesis 2

The second hypothesis that this study set out to address, stated in the form of a null hypothesis, is as follows:

With regard to the regular noun plural morpheme (-s), second language learners perform no differently in writing on discrete point grammar exercises, cloze exercises, short responses, and paragraphs.

Hypothesis 2 was also rejected by Wilks' Lambda multivariate analysis. Based

on the 27 observations in this set, a significant difference was found, $p = 0.0185$. (See Table 2, page 47.)

For the noun plural, Duncan's Multiple Range Test and t-test indicated that the means for the cloze (76.8%), discrete point (72.6%) and response tests (64.2%) were not significantly different from each other nor were the means for the discrete point (72.6%), response (64.2%) and paragraph test (60.6%). Here, the cloze and paragraph results were significantly different (76.8% and 60.6% respectively). (See Table 4.)

Table 4

Results of Duncan's Multiple Range Test and T tests (LSD) for Noun Plurals

| Test | Mean | Grouping |
|-------------------|------|----------|
| Cloze | 76.8 | A |
| Discrete Point | 72.6 | A B |
| Written Response | 64.2 | A B |
| Paragraph Writing | 60.6 | B |

Means with the same letter are not significantly different.

Hypothesis 3

The third hypothesis that this study set out to address, stated in the form of a null hypothesis, is as follows:

With regard to articles (a, an, the, 0) and other determiners (this, that, these, those), second language learners perform no differently in writing on discrete point grammar exercises, cloze exercises, short responses, and paragraphs.

The results of testing this hypothesis were based on all 28 observation. The hypothesis was rejected with a p value of 0.0006 using Wilks' Lambda multivariate analysis. (See Table 2, page 47.)

The results of Duncan's Multiple Range Test and t-test for the article showed that the cloze test (79.1%) differed significantly from the others, the paragraph (66.3%) and response (65.5%) tests were not significantly different from each other and that the discrete point grammar test (48.2%) differed from the rest of the tests. (See Table 5, page 51.)

Table 5

Results of Duncan's Multiple Range Test and T tests (LSD) for Articles

| Test | Mean | Grouping |
|-------------------|------|----------|
| Cloze | 79.1 | A |
| Paragraph Writing | 66.3 | B |
| Written Response | 65.5 | B |
| Discrete Point | 48.2 | C |

Means with the same letter are not significantly different.

Hypothesis 4

The fourth hypothesis that this study set out to address, stated in the form of a null hypothesis, is as follows:

With regard to direct object pronouns (it, him, her, me, etc.), second language learners perform no differently in writing on discrete point grammar exercises, cloze exercises, short responses, and paragraphs.

Based on 25 observations, the Wilk's Lambda multivariate analysis results indicated that the hypothesis should be rejected ($p = 0.0001$). (See Table 2, page

47.)

The two univariate tests showed that the means for this grammatical form were significantly higher on the cloze test (83.9%) than for the other three tests. The discrete point grammar test (61.9%) was significantly higher than the response (27.4%) and paragraph tests (25.8%). However, the response and paragraph tests results were not significantly different from each other. (See Table 6.)

Table 6

Results of Duncan's Multiple Range Test and T tests (LSD) for Direct Object Pronouns

| Test | Mean | Grouping |
|-------------------|------|----------|
| Cloze | 83.9 | A |
| Discrete Point | 61.9 | B |
| Written Response | 27.4 | C |
| Paragraph Writing | 25.8 | C |

Means with the same letter are not significantly different.

Hypothesis 5

Hypothesis five compares the results from the extended texts with the sentence length tests. Hypothesis 5 reads:

When comparing the results from the tests that consist of extended text to those that are only of sentence length (length of discourse), there is no difference in how subjects perform with regard to each of the four points of grammar.

In order to test this hypothesis, the combined data from the paragraph test and the cloze test (extended texts) were compared with the combined data from the written response test and the discrete point grammar test (sentence level texts). The comparison was made using a univariate analysis of variance (ANOVA).

The results of the tests for hypothesis 5 are shown in Table 7, page 54. The table shows the results for each grammatical form. The hypothesis was not rejected for third person singular verbs (0.1791) and the noun plural (0.9624). It was questionable for the direct object (0.0562). The hypothesis was rejected for the article (0.0007).

Table 7

Analysis of Variance for Four Grammatical Forms Between
Tests of Differing Lengths and Attention to Form

| Grammatical Form | Discourse Length ^a | Attention to Form ^b |
|--------------------------|-------------------------------|--------------------------------|
| 3rd person singular verb | p = 0.1791 | p = 0.9698 |
| Noun plural | p = 0.9624 | p = 0.0166 * |
| Article | p = 0.0007 * | p = 0.6257 |
| Direct object pronoun | p = 0.0562 | p = 0.0001 * |

Note: Reject H_0 : $|R| = 0$ when $p \leq 0.05$. * = significant

^aParagraph and Cloze vs. Response and Discrete point

^bParagraph and Response vs. Cloze and Discrete point

Hypothesis 6

Hypothesis six is about attention to form and says:

When comparing the results from the tests that pay a high attention to form to those that pay a low attention to form, there is no difference in how subjects perform with regard to each of the four points of grammar.

Hypothesis six was tested in much the same way as hypothesis five except in this case the paragraph test results were grouped with the response test results (low attention to form); these results were compared to the combined results from the cloze test and the discrete point grammar test (high attention to form). Again, the analysis of variance was used. Table 7, page 54, shows the results. The hypothesis was upheld for third person singular verbs (0.9698) and articles (0.6257). It was rejected for noun plurals (0.0166) and direct object pronouns (0.0001).

Hypothesis 7

Hypothesis 7 compares two points of grammar and reads:

When comparing subjects' performance on each of the tests, there is no relationship between success in using articles/determiners and success in using direct object pronouns.

To test the correlations for hypothesis 7, Pearson Correlation Coefficients tests were done ($H_0: \rho=0$ when $p \leq 0.05$). This test is a measure of linear relationship between two variables and as such can be used to test existence of a

relationship. It is based on a calculation of the variances for each dependant variable separately as well as their tendency to vary together. The results are on Table 8 and show that this H_0 was not rejected for the paragraph writing ($r = 0.08181$), the cloze test ($r = 0.20210$) and the written response test ($r = 0.26714$). However, the hypothesis was rejected for the discrete point grammar test ($r = 0.54715$). A scatter plot was made of this correlation (See Figure 2, page 57).

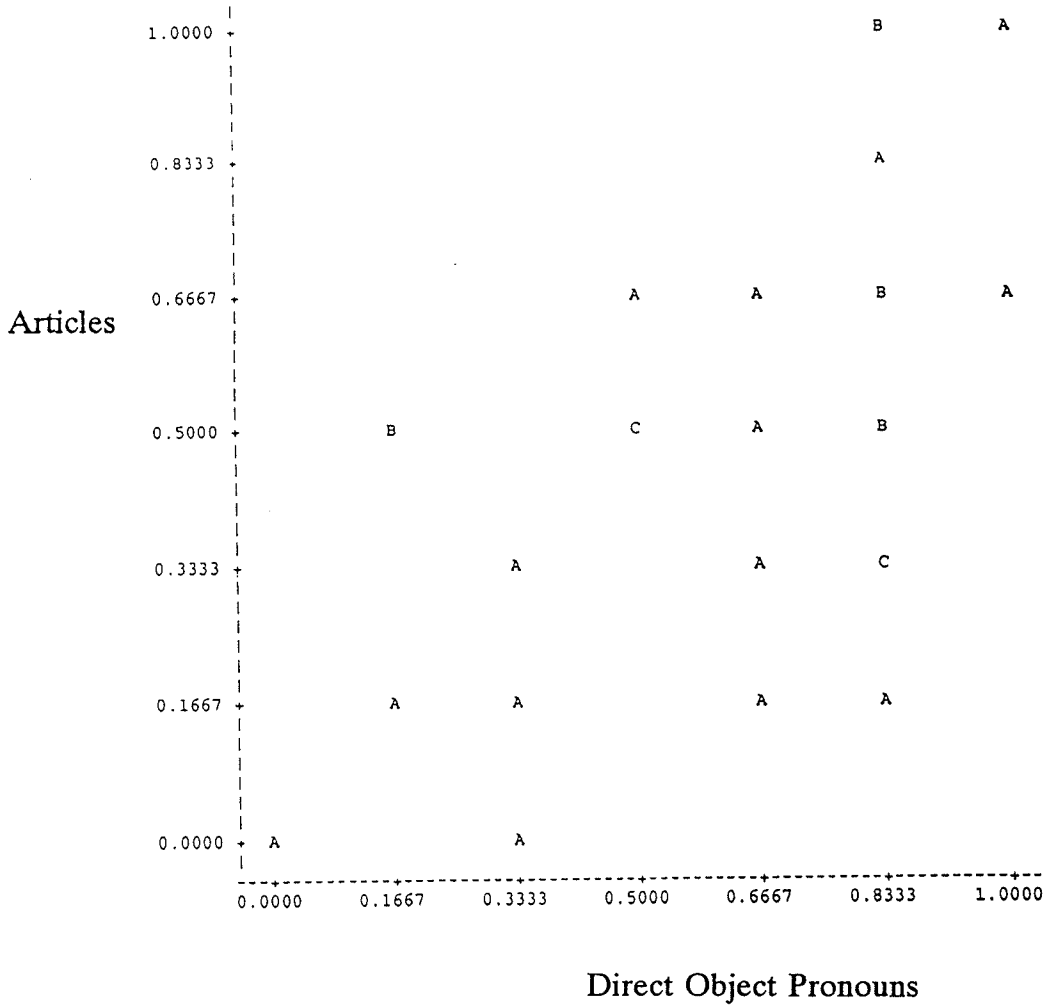
Table 8

Pearson Correlation Coefficients Showing Relationships Between Two Pairs of Grammatical Forms

| Test | Articles & D.O. Pronouns | Plural Nouns & 3rd Person Verbs |
|-------------------|---------------------------------|------------------------------------|
| Paragraph Writing | $r = 0.08181$ $p = 0.6975$ | $r = 0.27030$ $p = 0.1817$ |
| Written Responses | $r = 0.26714$ $p = 0.1694$ | $r = 0.56902$ $p = 0.0016^*$ |
| Cloze | $r = 0.20210$ $p = 0.3024$ | $r = 0.39655$ $p = 0.0367^*$ |
| Discrete Point | $r = 0.54715$ $p = 0.0026^*$ | $r = 0.57711$ $p = 0.0013^*$ |

Note: Reject H_0 : $|R| = 0$ when $p \leq 0.05$. * = significant

Figure 2. Correlations between articles and direct object pronouns in the discrete point grammar test.



Note: All scores in percent.

Legend: A = 1 subject

B = 2 subjects, etc.

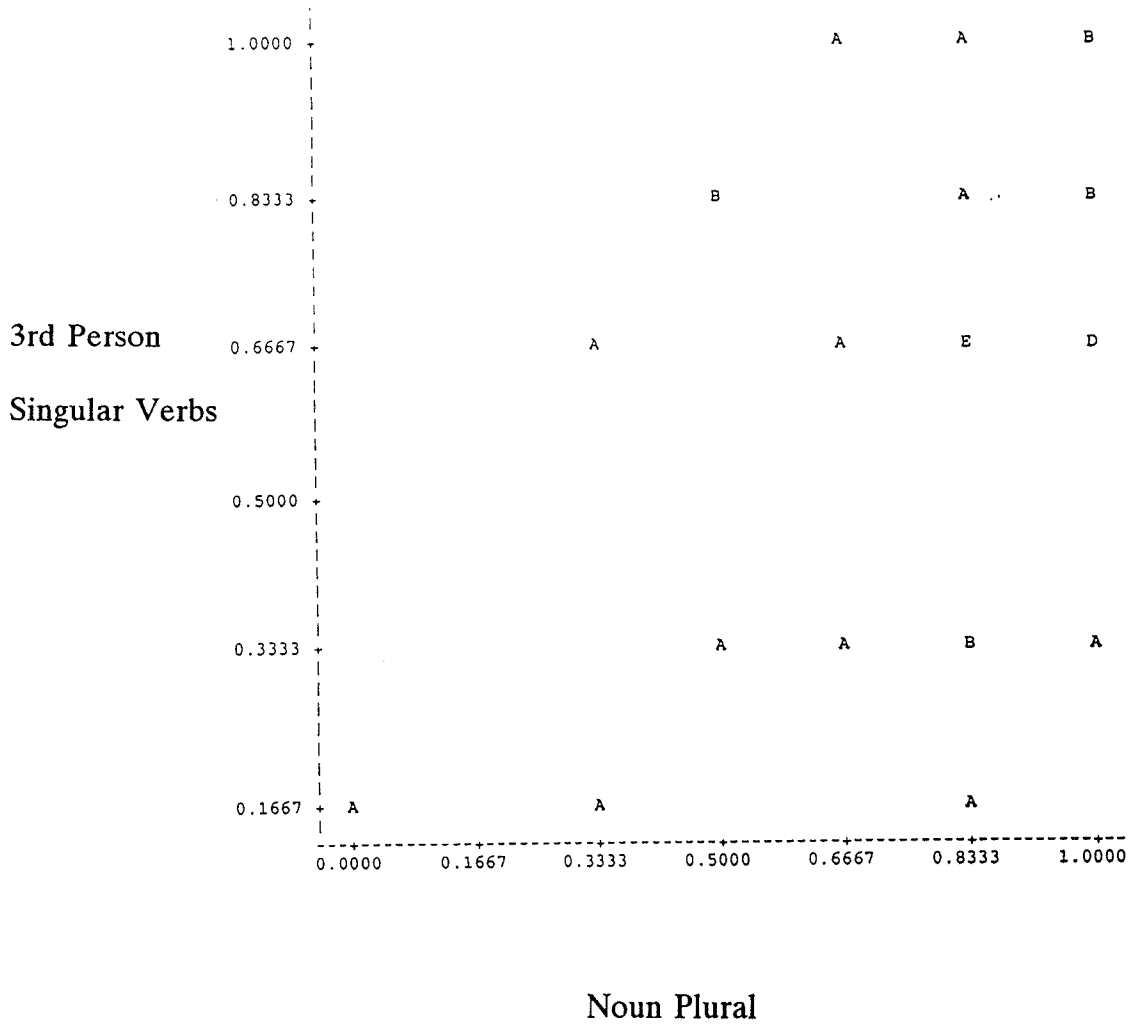
Hypothesis 8

Hypothesis 8 looks at correlations in another way:

When comparing subjects' performance on each of the tests, there is no relationship between success in using plural nouns and success in using third person singular present tense verbs.

Pearson Correlation Coefficients tests were used to test hypothesis 8 as well, and the level of significance remains the same (See Table 8, page 56). The hypothesis can not be rejected in the case of the written paragraphs ($r = 0.27030$). It is rejected in the cases of the other three tests: cloze ($r = 0.39655$), response test ($r = 0.56902$) and discrete point grammar test ($r = 0.57711$). The scatter plots for each of the rejected tests are found in Figures 3, 4, and 5. All of the scatter plots show a correlation between success in using third person singular verbs and plural nouns.

Figure 3. Correlations between noun plurals and third person present tense verbs in the cloze test.

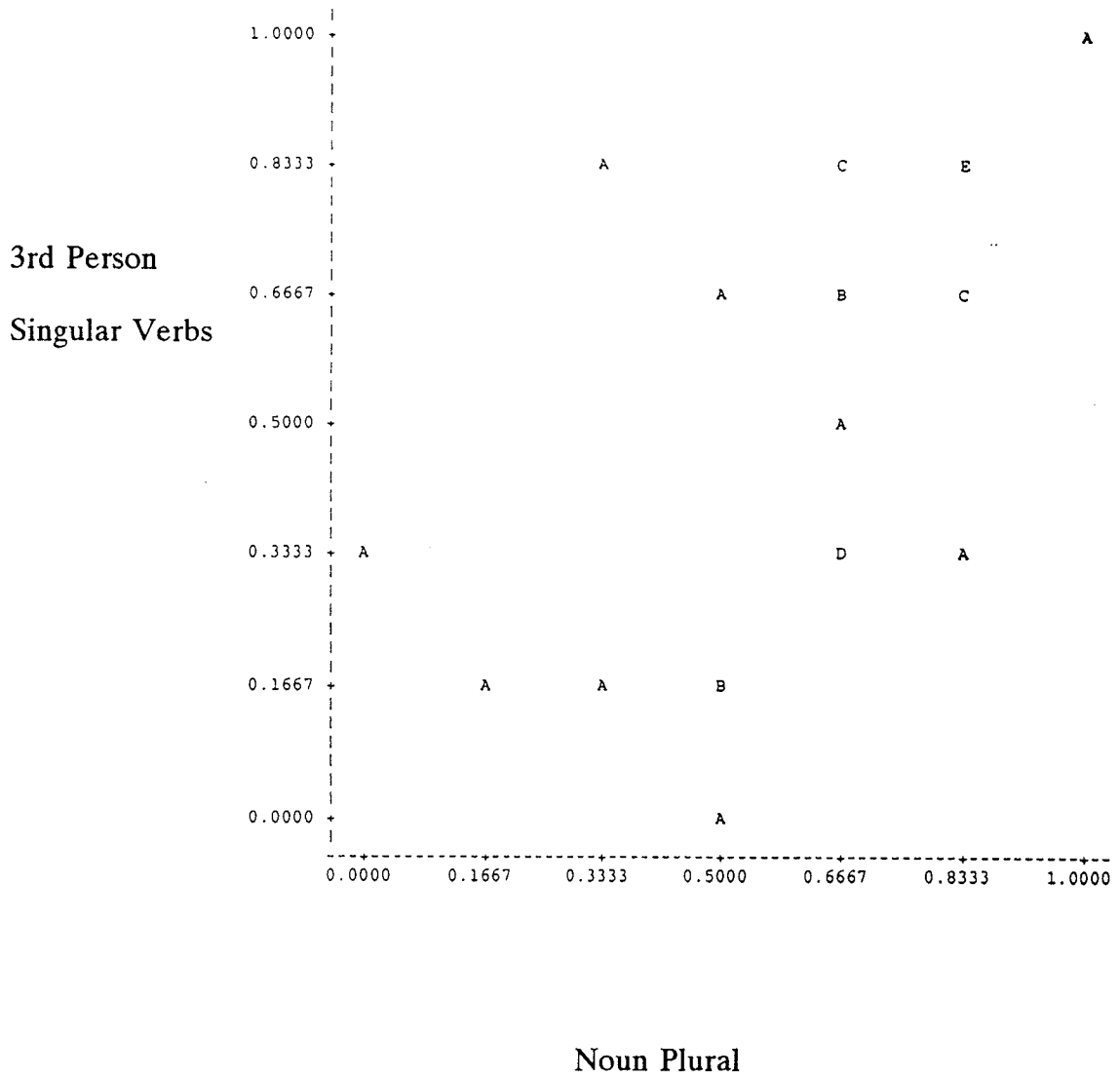


Note: All scores in percent.

Legend: A = 1 subject

B = 2 subjects, etc.

Figure 4. Correlations between noun plurals and third person present tense verbs in the response test.

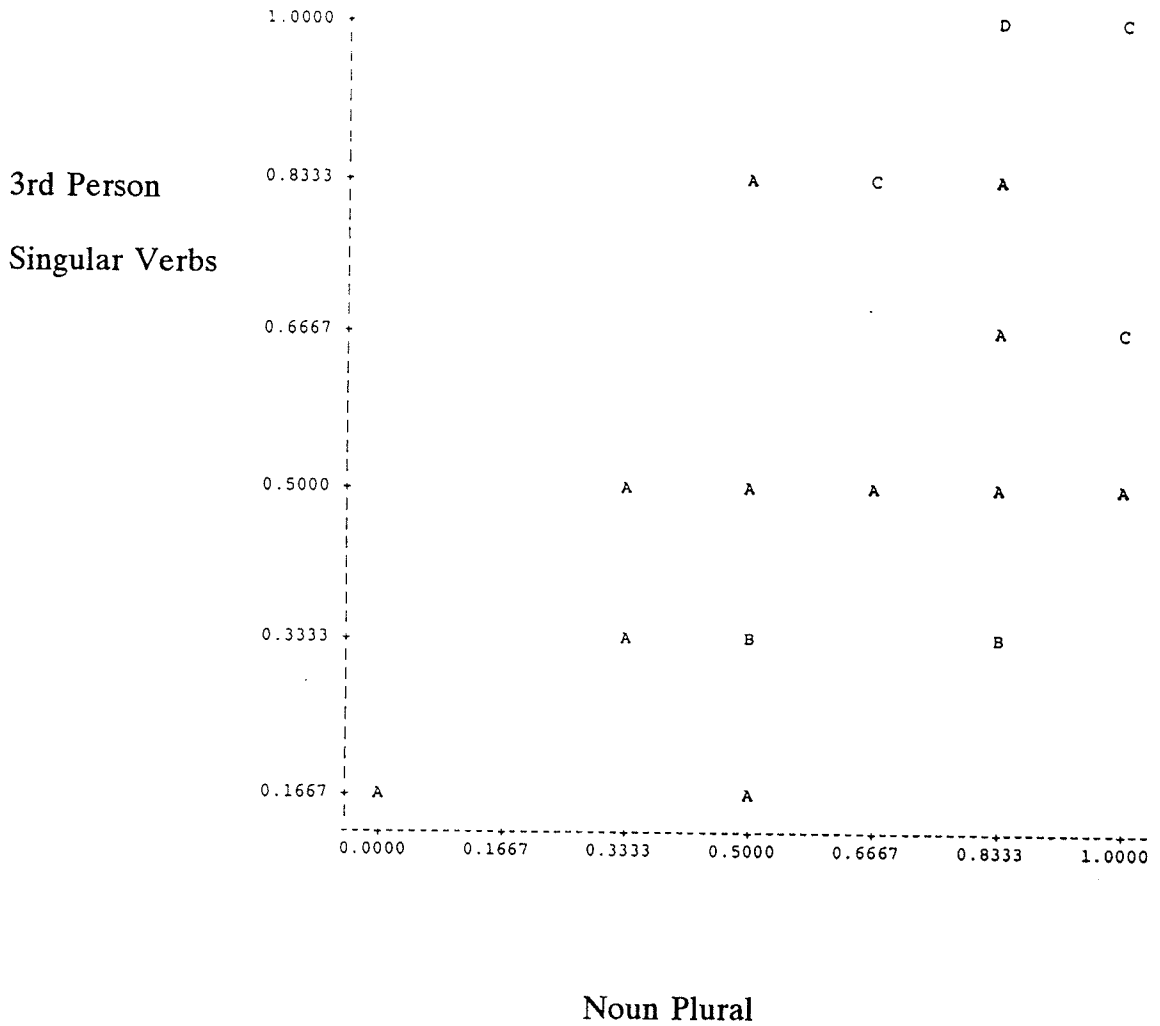


Note: All scores in percent.

Legend: A = 1 subject

B = 2 subjects, etc.

Figure 5. Correlations between noun plurals and third person present tense verbs in the discrete point grammar test.



Note: All scores in percent.

Legend: A = 1 subject

B = 2 subjects, etc.

Answering the Research Questions

Question One

Do second language learners demonstrate correct use of a point of grammar on one test but fail to use it on a different test?

The rejection of the null hypotheses for Hypotheses 1 - 4 indicates that this question can be answered in the affirmative.

According to the present study, second language learners do demonstrate correct use of a point of grammar on one test but fail to use it on a different test. Table 9, on page 63, shows the mean percentage for all of the grammatical forms on all tests. The amount of the difference between grammatical forms and tests varies widely as can be seen from the results of testing the hypotheses and the answers to subsequent questions.

Question Two

If there is variation, with which structures do second language learners exhibit variation in their interlanguage? With which grammatical forms do second language learners demonstrate correct use and with which forms do they display difficulty?

Table 10 (page 64) shows the variation in the results in the grammar points on each test type. The most variation is for the direct object pronoun (58.1%). The article showed considerable variability as well with a mean of 79.1% on the cloze and a mean of 48.2% on the discrete point grammar test.

Table 9

Scores in Mean Percentages on Four Test Types for Four Grammar Points

| Grammatical Form | Test | | | |
|------------------------|-------------------|-------------------|-------|----------------|
| | Paragraph Writing | Written Responses | Cloze | Discrete Point |
| 3rd Person Sing. Verbs | 72.2 | 56.0 | 63.1 | 65.5 |
| Noun Plural | 60.6 | 64.2 | 76.8 | 72.6 |
| Articles | 66.3 | 65.5 | 79.1 | 48.2 |
| Direct Object Pronouns | 25.8 | 27.4 | 83.9 | 61.9 |

The cloze test had the highest scores for the noun plural, article, and direct object. The paragraph test had the highest score for the third person singular verbs (72.2%) but then had the lowest scores for the noun plural (60.6%) and direct object pronoun (25.8%).

Table 10

Test Types with Highest and Lowest Mean Percentage For Four
Grammar Points

| Grammar Point | Test and Mean Percentage | | |
|--------------------------|--------------------------|---------------------------------------|-------|
| | Highest | Lowest | Range |
| 3rd person singular | Paragraph 72.2 | Response 56.0 | 16.2 |
| Noun plural | Cloze 76.8 | Paragraph 60.6 | 16.2 |
| Article | Cloze 79.1 | Discrete 48.2 | 30.9 |
| Direct Object pronoun | Cloze 83.9 | Paragraph 25.8 Response 27.4 | 58.1 |

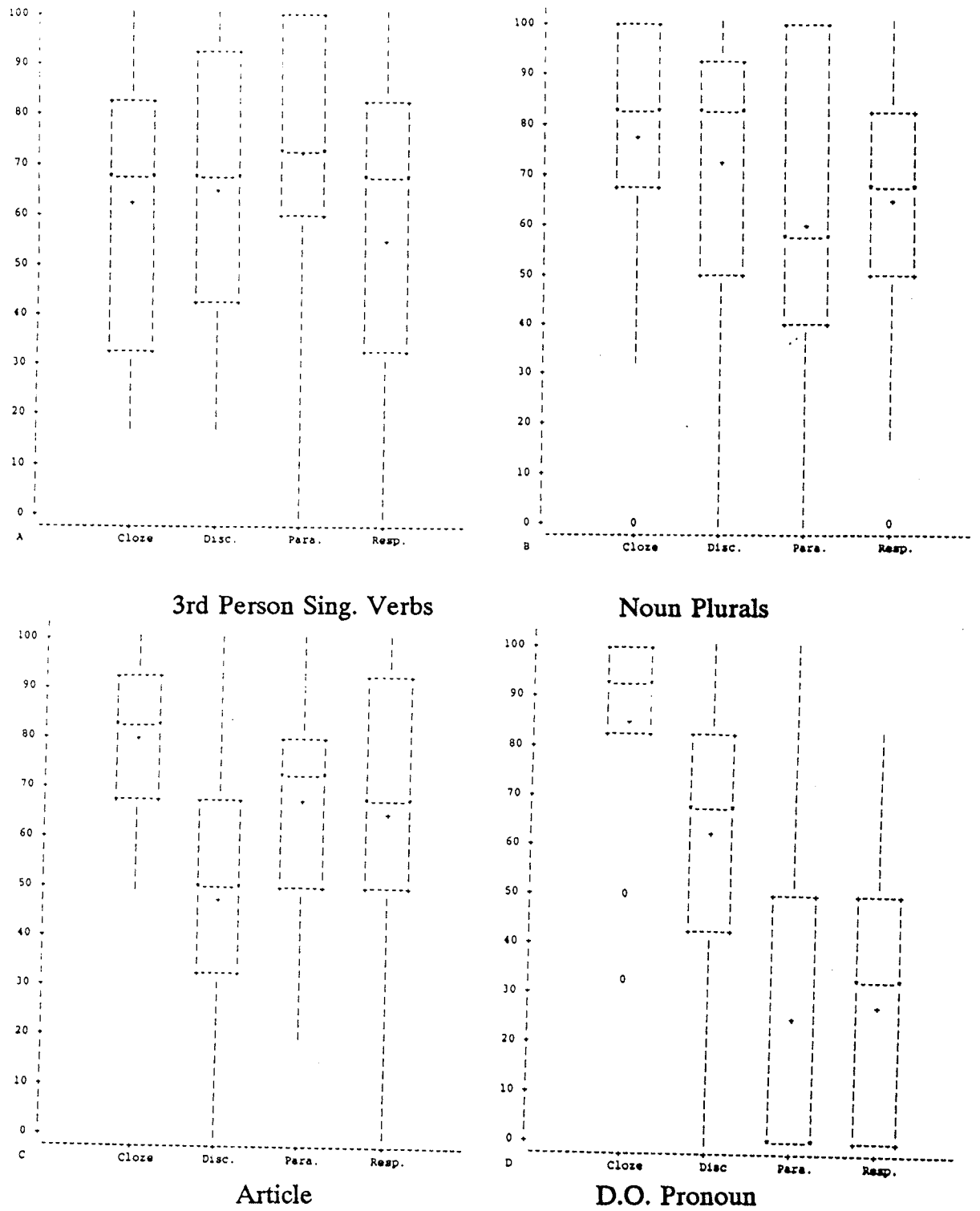
Figure 6 (page 66) shows the variation of each point of grammar for each test represented in box plots. Box plots show the mean, median, and range of scores. The mean is represented by "+" on the plot. The median is the dotted line in the box. The box itself shows the middle 50% of the scores. The line above the box represents the range of scores in the top 25% of subjects. The line below the box shows the range of scores in the bottom 25% of subjects. In some cases, there are individual scores which are outside of most of the other scores. These "outliers" are represented by an asterisk or an "O". In other cases, there is no line coming up or down from the box. This shows that there was overlap between the middle 50% of the scores and the top or bottom 25%. In other words, many subjects scored either close to or around 100% or 0%.

Subjects used the third person singular present tense verb marker -s more successfully on the paragraph writing test than they did on any of the other tests. In fact, over 50 percent of the subjects scored higher mean scores on that test than the mean scores on any of the other tests.

The mean scores for the noun plural morpheme -s were fairly close to each other. The highest and lowest means varied less than 20 percent. Only one subject (represented on the plot by "O") scored under 30% on the cloze test for this grammatical form.

For the article, subjects demonstrated a high level of success on the cloze test (79%) but scored low on the discrete point grammar test (48%). The large spread in scores is significant because both of these tests claim to pay a high

Figure 6. Test scores on four grammatical forms shown in percentages.



attention to form. The means for the other two tests lie in the mid-60's. The two tests with extended texts (written paragraph and cloze) had the higher scores (66% and 79%, respectively). The scores for the direct object pronoun show the greatest amount of variation. On the cloze test, subjects scored high with about 75% of subjects getting over 80%. The mean on the cloze test was 84%. The discrete point grammar test shows a significant drop below that with most subjects scoring between 50 and 80 percent and the mean being 62 percent. The mean scores for the paragraph (26%) and written responses (27%) are dramatically lower.

Question Three

Can a generalization be made about what kind of test learners are most successful in with regard to specified forms of grammar?

The data show that learners exhibit variation on all tests using all structures. Table 11 (page 68) displays the highest and lowest mean scores for the four tests. It shows that the mean score for the direct object pronoun in the paragraph test was 25.8%. This mean is 46.4 percentage points below the highest mean, the third person singular verb, which was 72.2%. This range was the highest range among all tests.

The response test also shows a great deal of variation. The article and noun plural scores, which were the higher scores on this test, are in the mid 60's and the direct object pronoun, the lowest, was 27.4%. This is a range of 38.1%. The cloze and discrete point tests had ranges between their means of 20.8% and 24.4% respectively.

Table 11

Grammar Points with Highest and Lowest Mean Percentage for
Four Test Types

| Test | Grammar Point and Mean Percentage | | Range |
|-----------|--|----------------------------------|-------|
| | Highest | Lowest | |
| Paragraph | 3rd person singular 72.2 | Direct object pronoun 25.8 | 46.4 |
| Response | Article 65.5 Noun plural 64.2 | Direct object pronoun 27.4 | 38.1 |
| Cloze | Direct object pronoun 83.9 | 3rd person singular 63.1 | 20.8 |
| Discrete | Noun plural 72.6 | Article 48.2 | 24.4 |

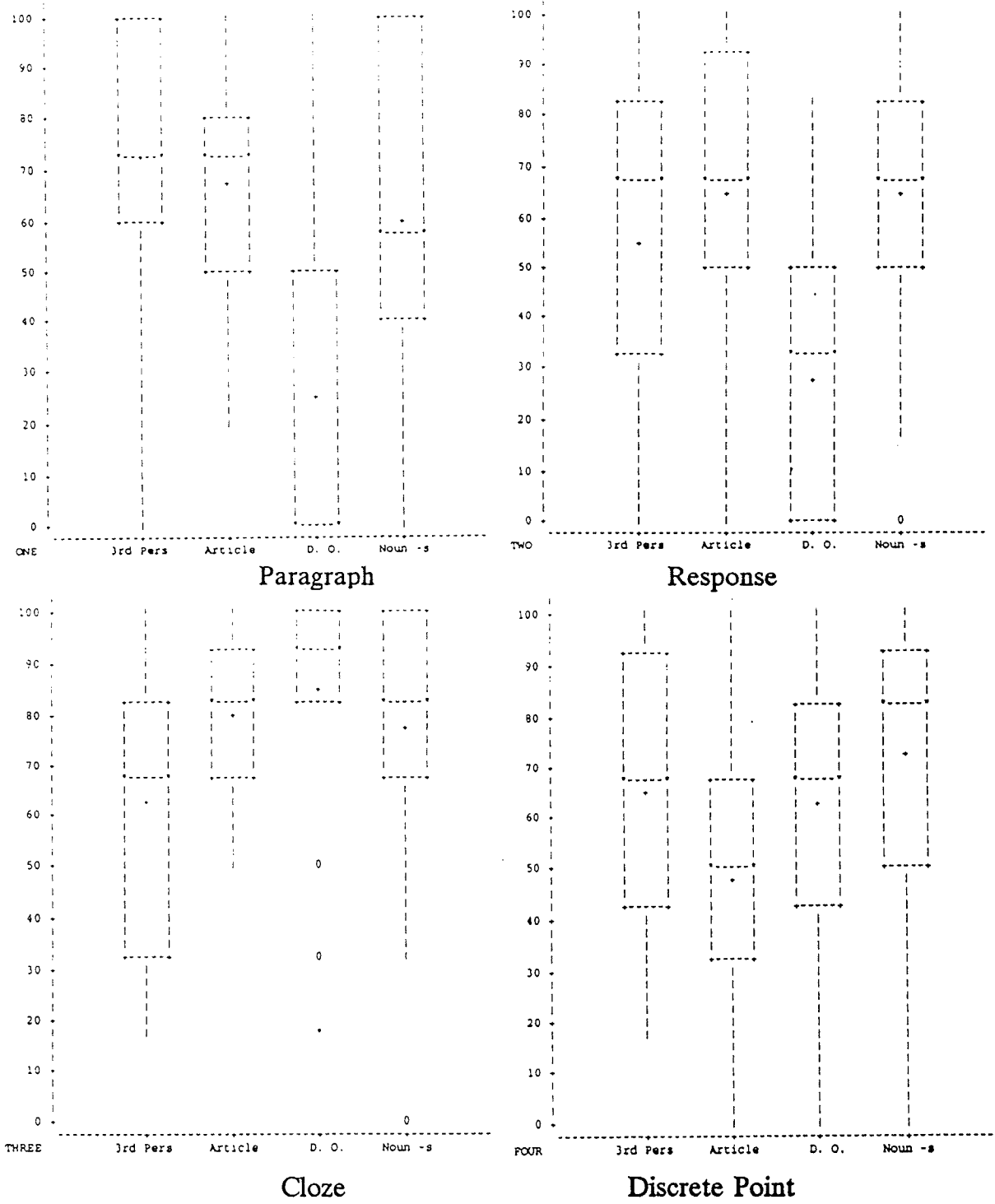
Figure 7 (page 70) shows a box plot graph for each test based on percentage scores for the four grammatical points under study and offers more detailed information than Table 10 (page 64). The paragraph writing test showed moderately high scores for three grammatical points: 3rd person (72%), article (66%), noun plural (60%) in contrast to the fourth grammatical point: direct object pronoun (26%) which was dramatically lower.

The graph for the written response test is similar to the paragraph test. Scores for the article and noun plural are in the mid 60's, third person singular is in the 50's, compared to the mean for the direct object pronoun is dramatically lower at below the 30% mark (27%).

The results of the cloze test are very different. The box plot graph takes on a completely different shape. Seventy-five percent of the scores for the direct object pronoun were above 80% which is above the means of the other three grammatical forms. The mean for the direct object pronouns is 84%. The other mean scores in descending order were article (79%), noun plural (76%), and 3rd person singular verbs (63%).

The discrete point grammar test also shows some variation, but the degree of difference is less than that of any of the other tests. The article showed the poorest response (48%) and the noun plural the best (72%). In between were the direct object pronoun (62%) and third person singular verbs (65%). On each of the four grammar points, there were some subjects who scored perfect marks. This is noted

Figure 7. Scores of four different types of tests in four grammatical forms shown in percentages.



by the line extending from the box up to the 100% score at the top of the graph.

Based on the results of this study alone, there are no generalizations that would apply to the grammatical forms to determine on what type of test learners do well. In most cases, neither focus on form nor length of discourse made a significant difference to how well or poorly subjects performed.

Question Four

Do second language learners use specified forms of grammar more successfully when these forms are used in single sentence discourse and less successfully when they are used in textual discourse? Or is the opposite true?

To answer this question, the results from the paragraph test were combined with the cloze test (extended text) and these were compared with the combined results of the response test and the discrete point grammar test (sentence discourse). The results are shown in Table 7, page 54. The ANOVA results show that the only grammatical form that showed marked improvement when subjects were tested with extended discourse is the article ($p = 0.0007$). Subjects performed better in article usage when they were using extended discourse found in the cloze and paragraph tests. The box plots in Figure 6 (page 66) also show that for the article, subjects performed better when using extended text.

The results for the direct object pronouns were just above being statistically significant ($p = 0.0562$). However, this result may be distorted. The box plots in Figure 6 (page 66) show very high scores for the cloze test. The results for the

paragraph and response tests were fairly equal. When the scores for the cloze are combined with the paragraph scores the result is much larger than when the discrete point scores are combined with the response test. This could be the cause of the distorted results. This type of distortion will only take place when two forms have almost equal results and one is being combined with a form that has very high or very low results.

Both third person singular verbs ($p = 0.1791$) and the noun plural ($p = 0.9624$) do not show any variation based on discourse length.

Therefore, the answer to question four is that, based upon this research, the article was the only form that showed significant improvement when used in textual discourse and that the results for the direct object pronoun were possibly significant in their improvement on textual discourse. The textual length made no difference to the other two forms.

Question Five

Do second language learners perform more successfully when they are required to complete a task that is relatively focused on form as opposed to a task that is not as focused on form?

To answer this question, the results of the tests where subjects were expected to focus more on form (discrete point and cloze) were combined and compared with the combined results of those tests on which subjects were expected to focus less on

form (paragraph and response).

The results are found in Table 7, page 54. The most significant result was for the direct object pronouns ($p = 0.0001$). Figure 6 (page 66) confirms this and shows that subjects performed much better on this structure on tests where they were expected to focus on form compared to tests where they were relatively less focused on form.

The noun plural results also were statistically significant ($p = 0.0166$). Once again, the box plots in Figure 6 (page 66) show that when relatively focused on form, subjects performed better than on tests that were not as focused on form.

Question Six

Is there a correlation between two cohesive devices for the various tasks? If so, what are the results of the correlations?

The grammatical forms in this study which act as cohesive devices are the article and the direct object pronoun. Figure 7 (page 70) shows the various tests and how each grammatical unit scored. On the cloze test, the cohesive forms both scored higher than the other forms. On the discrete point test they both scored lower than the other forms. For the other two tests, the article scored in the mid-60% range and the direct object scored in the 20% range.

Statistically, the relationship between these two forms and opposed to the other forms was significant for only the discrete point test ($p = 0.0026$). (See Table

8, page 56.) The other results were for the paragraph writing ($p = 0.6975$), the cloze test ($p = 0.3024$) and the written response test ($p = 0.1694$). This shows that for the discrete point test, subjects who demonstrated successful use of the article also were successful for the direct object pronoun. On this test, there was a clear relationship between the two cohesive devices.

Question Seven

Is there a correlation between grammatical forms with relatively little cohesive value on the various tasks? If so, what are the results of the correlations?

The grammatical forms with relatively little cohesive value are plural nouns and third person singular verbs. The results seen in the box plots in Figure 7 (page 70) are confirmed by the statistical data (Table 8, page 56) which show very little correlation for the paragraph test ($r = 0.27030$). There is increasing correlation for the other three tests: cloze ($r = 0.39655$), response test ($r = 0.56902$) and discrete point grammar test ($r = 0.57711$). These findings show that if a subject performs well in one grammatical form, s/he will probably perform well on the other. The scatterplots and the discussion of hypothesis eight give more details.

Other Results of Interest

Administration of the Tests

The administration of the test progressed as proposed except that subjects completed the cloze and discrete point test in less time than expected. After the completion of the sentence response test, which was taped, subjects were told to continue with the other two parts of the test on their own at their own speed. The proposed amount of time for the cloze was 10 minutes and the discrete point test was given 15 minutes. In fact, some subjects completed both tests in 15 minutes. Other subjects took up to 30 minutes to complete both tests.

Scoring

While scoring the paragraph test, it became clear that most subjects were using the direct object pronouns sparingly or not at all. Those who were using them did so only one or two times. Many subjects did not use transitive verbs in large numbers and if they did, they would put a full noun in the object position. Three subjects (#1, 3, & 28) used direct object pronouns successfully in all their attempts (see Table 1, Appendix F.). One used direct object pronouns five times (#28), another twice (#3), and the last once (#1). One subject was successful 3 out of 4 times (#4), but the remaining 24 subjects used the direct object pronouns only once or not at all. The mean score for direct object pronouns for this test was 25.8%.

In the sentence response test, subjects did not use the direct object pronouns with very much more success either. The mean on this test was 27.38%. Only two

subjects got more than half of the answers correct. About 44% of the subjects included a complete noun phrase in the object position instead of a pronoun. The remaining 28% had the object of the verb completely missing.

There are some other interesting results from the individual scores for the direct object pronoun. Four subjects (#5, 9, 10 & 22) did not get any answers correct for the paragraph or response test but got full points for the cloze test. Then in the discrete test they made either 5 errors (#5, 9, & 10) or 2 errors (#22). They showed that they knew about the use and existence of direct object pronouns in the cloze test where they skilfully used them as referents, but they did not transfer that knowledge to the other tasks.

Chapter Five

Summary, Discussion, and Implications

Summary of the Study

This study measured variability in the interlanguage of high-intermediate adult ESL students by using four different tests. The study examined the effect of discourse length and attention to form on the production of four grammatical forms.

The instruments used in the study included two single sentence tests: discrete point unconnected grammar exercise and a series of oral questions with a short written phrase or sentence answer, and two extended text tests: a modified cloze exercise and a written paragraph assignment. The grammar points included two cohesive forms articles and direct object pronouns, and two forms with little cohesive value: third person singular present tense morpheme (-s) and regular noun plural morpheme (-s). The subjects were 28 high-intermediate English language learners who spoke a variety of first languages. The data were collected in one sitting.

Summary of the Results

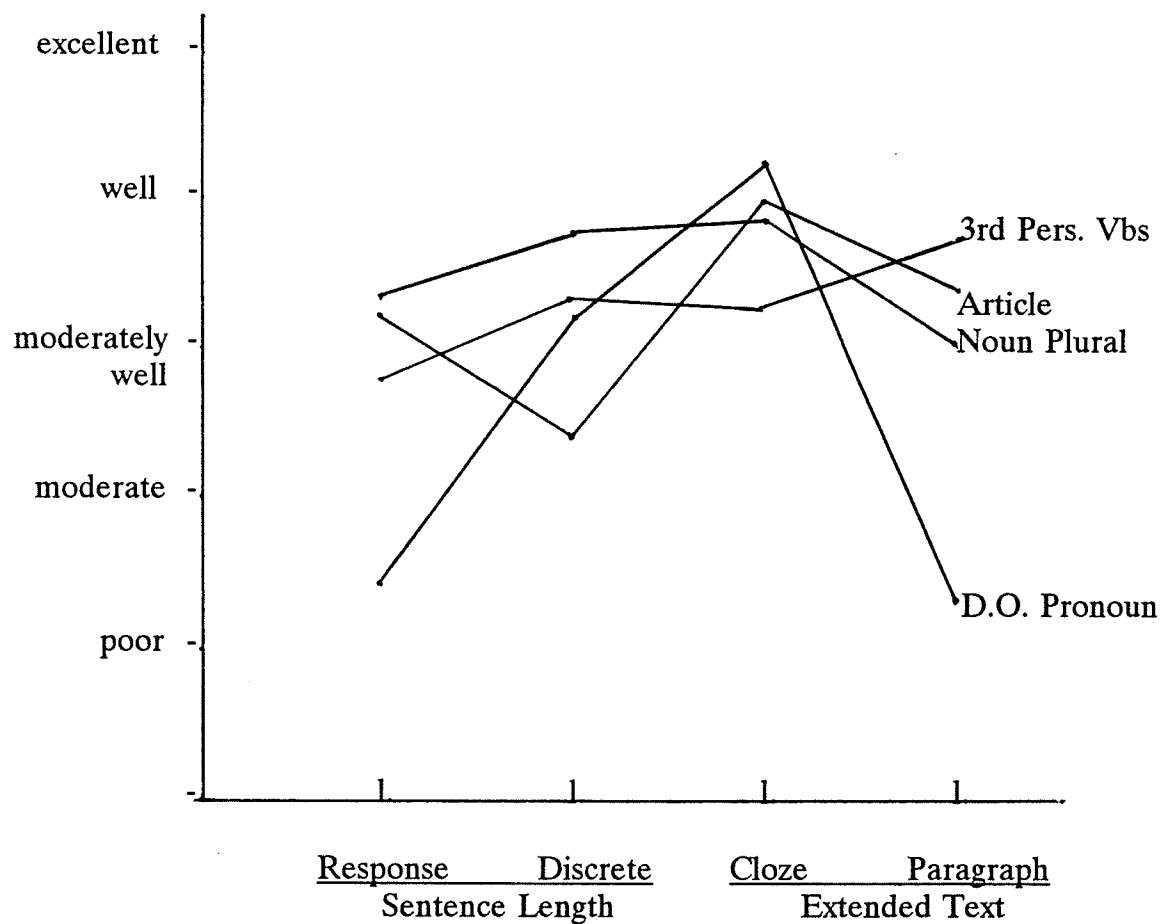
The data show that learners exhibit variation across tests at some point. For the third person singular verbs, the Wilks' Lambda multivariate test showed a significant difference of $p = 0.0311$. (Level of significance: $p \leq 0.05$.) For the noun plural the result was $p = 0.0185$, for articles $p = 0.0006$ and for direct object pronouns $p = 0.0001$. (See Table 2, page 47.)

The response test scores showed the least variation, with the only main difference being that the third person singular verb scores are lower than the others. In the cloze, learners performed excellently on the direct object, very well on noun plural and article and moderately well on third person. The last test, the discrete point grammar test, shows learners doing moderately well on third person, noun plural, and direct object and fair on the article.

At the outset, this study speculated that subjects would use cohesive forms of grammar (articles and direct object pronouns) correctly when these forms are an essential part of a discourse or passage. These forms are considered important for the paragraph and cloze tests (See Figure 8, page 79). For the paragraph test, learners performed well to moderately well on the third person singular verb, noun plural, and article. They performed poorly on the direct object pronoun. Part of the poor performance with the direct object pronoun was due to the fact that subjects did not use the form in the paragraph test very much or, in some cases, not at all. Possible reasons for this will be presented in the discussion section. Results for the article, however, show that subjects used the article more successfully when it was an

important part of the discourse: in paragraph length contexts. ANOVA tests indicated that the comparison between the two tests was strong ($p = 0.0007$) for the article (see Table 7, page 54). The direct object was possibly related (0.0562). The other two grammatical forms did not show significance. On the cloze test, the direct object pronoun received the highest score and the article, the second highest. On this test, the predicted outcome occurred.

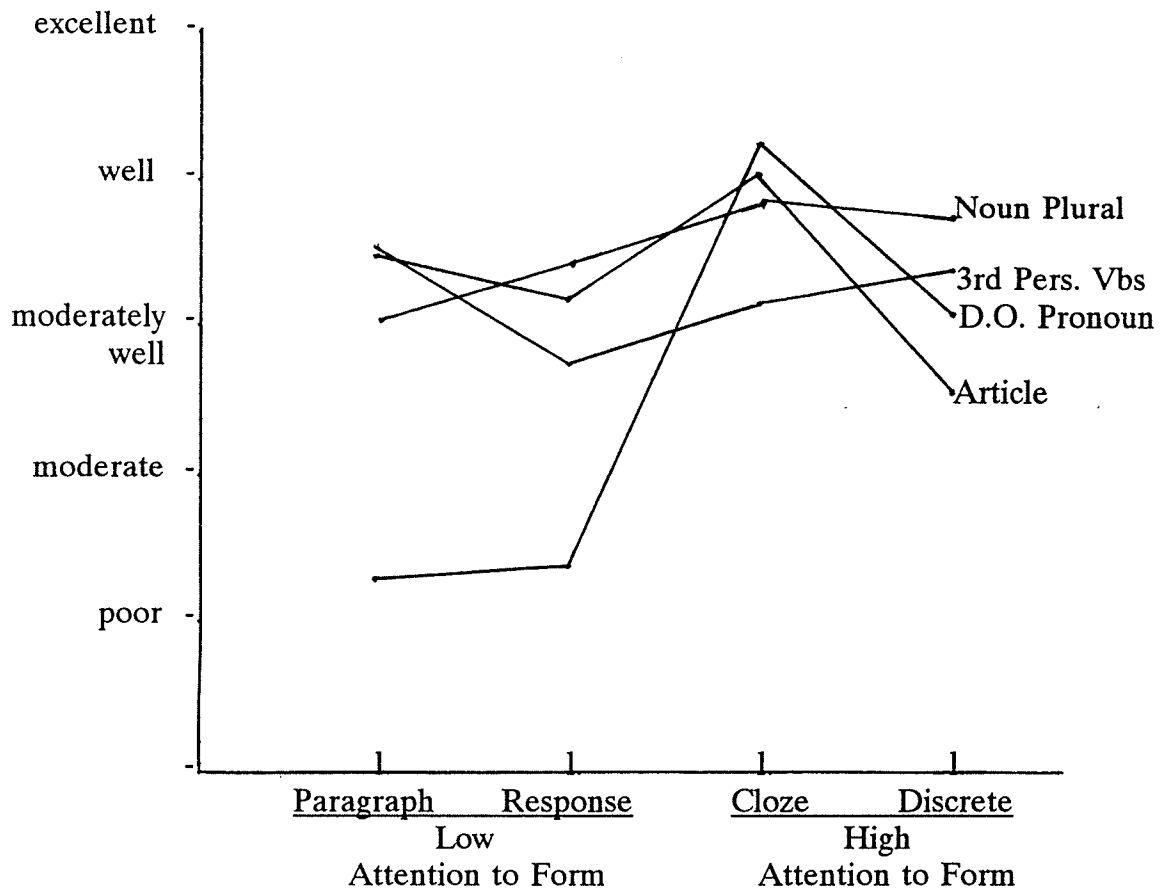
Figure 8. Mean scores for tests of different discourse lengths for four grammatical forms.



The converse was also proposed: subjects will not demonstrate correct use of these same cohesive forms (article and direct object pronouns) when they are not essential for meaning or "connectedness". These forms are considered less essential in the sentence level tests: the response and discrete point grammar tests. On the response test, subjects scored high for the article (see Figure 8, page 79). The direct object pronoun scores, however, were very low as was predicted. On the discrete point grammar test, the article received the lowest score. The direct object pronoun was the second lowest. In the case of the discrete point grammar test, the outcome was as predicted.

The study also compared the effects of two different amounts of expected attention to form. The study proposed that subjects would be more successful in using noun plural markers and third person singular present tense verbs when subjects are focused on form. The tests in this study considered to focus more on form are the discrete point and cloze tests. The results show that for the discrete point test, subjects performed very well in their use of noun plural markers, the highest score on that test (see Figure 9, page 81). For the third person singular the scores were also high. On the cloze test, subjects scored moderately high on the noun plural and scored the lowest on the third person singular verbs. ANOVA tests indicated that there was no difference in results from the tests that pay a high attention to form to those that pay a low attention to form for third person singular verbs ($p = 0.9698$) and articles ($p = 0.6257$). (See Table 7, page 54.) Noun plurals ($p = 0.0166$) and direct object pronouns ($p = 0.0001$) showed significant differences.

Figure 9. Mean scores for tests with different amounts of focus on form for four grammatical forms.



Discussion of the Study's Relation to the Literature

This study was based upon Tarone's (1985) study entitled "Variability in interlanguage use: A study of style-shifting in morphology and syntax" that was reported in Language Learning. Tarone predicted that a research investigation like the present study, with a cloze test and a discrete point test, would find that for both

forms (article and direct object pronoun) subjects would perform better on the cloze. The results of the present research confirmed that prediction.

Tarone emphasizes the importance of reference for the direct object pronoun and article and suggests a cloze-type test and a discrete point-type test. This would test her hypothesis that for these two grammatical forms, extended texts would get better results than sentence level tests. The data from the present study found that in both cases, subjects performed much better on the cloze than they did on the discrete point test.

She also says that as the discourse becomes more cohesive, some grammatical forms may improve while others may not. This was found in the present study. The article and direct object pronoun improved markedly (over 20%) on the cloze compared to the discrete test. For the noun plural, there was an improvement (about 10 percentage points), but for the third person singular verbs, subjects performed slightly more poorly on the cloze than the discrete test.

Tarone (1985) says that the findings of her study raised questions about measuring learner's competence because she found so much variation in learner's performance. The present research also found a significant amount of variation in performance. It is difficult to say what the competence of the learners' was who were involved with the study because their performance was so varied. For example, they showed that they could use the direct object pronouns on the cloze test (over 80% correct) but only used the form correctly in the paragraph or response tests in about 30% of their attempts.

The results for the grammatical form of article are also interesting in light of Tarone's criticism of Krashen's Monitor Model which is based on learner's communication. She found that learner performance improved for the article as tasks required less and less attention to language form. She says that the Monitor Model cannot explain this. It appears that some forms are acquired in some contexts only. This present research also found that article performance did not improve with increased attention to form but decreased.

Krashen says that acquired forms like the article do not improve with monitoring. This would explain the poor performance (under 50%) on the discrete test but it does not account for the good scores on the cloze (over 80%) where, presumably, subjects would be monitoring. It also does not account for the scores in the mid-60's for the response and paragraph test. Why did scores improve on these tests over the discrete test? Why is "competence" better than "performance"? Krashen says they would not improve with monitoring but that does not explain why the scores deteriorated with monitoring. It does not work to say that the discrete point test was harder than the other tests because subjects scored higher (over 15% higher) on the other three grammatical forms on this test. This seems to confirm Tarone's contention that some other factor or factors, like length of text or speaker/writer control, are at work.

The wide variation in scores found in the present research demonstrates that focus on form is not the only factor at work here. The Monitor Model includes two other factors: enough time and knowledge of the rule. These influences were equally

present at the time of test taking.

The best explanation for the results found with regards to the article is that textual cohesiveness or discourse length were factors. The cloze paragraphs required subjects to carry meaning across sentences and forced them to use grammatical forms that help attain unity in a text. Because the context demanded the article for cohesion or togetherness, subjects were forced to think about and use these devices.

This could also explain why subjects performed better on the cloze than the discrete point test for the direct object pronoun as well. In the cloze, most of the direct object opportunities were in reference to something or someone from preceding sentences. In order to maintain flow in meaning subjects used direct object pronouns. In the discrete point test, however, subjects may have felt that the pronouns were not necessary because their referent had already been referred to in the sentence. Subjects may have felt there was no need for the pronouns or that they were being redundant.

Bialystok (1991) identifies two kinds of variability in language. They are cognitive and synchronic variability. Synchronic variability is performative and varies with different situations. This is the type of variability that the present research focused upon. The results of this study fit with what Bialystok says about synchronic variability which is that when the context focuses on language forms, learners perform better. For example, the noun plural improved with monitoring along a continuum of increased focus on form. Subjects performed least successfully in the paragraph test, better in the response, even better in the discrete point and the best on the

cloze.

The direct object pronouns also fit Bialystock's pattern. For the less monitored tasks of paragraph writing and responding to questions, subjects performed very poorly. They improved, however, on the more monitored tasks of the cloze and discrete point tests. Noun plural markers also improved with monitoring but not as dramatically as the direct object pronouns.

The present research adds to the work done in the 1980's by confirming that interlanguage is multicomponential and that there are many factors at work in testing. The present research concurs with Bachman's (1991) summary of the linguistic testing research done in the past decade. Past research has demonstrated that the kind of test tasks used affect test performance as much as the abilities measured. In the present research, because the data were collected in one sitting without any instruction or time for learning to take place, the subjects did not improve in their ability. However, subjects showed a great deal of variability in their performance from task to task. The test type affected their performance.

The present research reinforces what Huebner (1979) says to order of acquisition theorists. Order of acquisition research must remember the high variability in interlanguage. When testing subjects to determine which structures they have acquired or learned, it is important to use as many testing contexts as possible. Interlanguage is so variable that to use just one method of testing would leave out some valuable data and may render the results invalid.

Discussion of Research Methodology

The choice and design of three of the instruments was not difficult. Tarone (1985) suggested the cloze and discrete point test, and even gave a sample of her discrete point test. The written paragraph came naturally out of needing an extended text, to match the cloze, where the subjects would not be as focused on form. However, constructing the written response test proved difficult. A test was needed that would be relatively unfocused on form and yet be sentence length.

How do the short responses to the oral questions following statements elicit structure and how do they require subjects to demonstrate their knowledge of English structure? Essentially the responses are a repeat of what the subjects have heard. There is no new information; it is not conversational in nature or asking for an opinion or expansion. It is as if a sentence was spoken and someone was asking for clarification on one point and part of the sentence needed to be repeated.

Subjects are asked to do the same thing for the written paragraphs except that the paragraphs cover a larger amount of material, use a longer time span and the request is not for clarification but for summarization. The requirements are the same except the second task is larger in all respects than the first.

In the first, the isolated sentences are disjointed, out of context, and have no inter-sentential connection. They each introduce a new topic with new vocabulary. They are complete and stand alone. The paragraphs include sentences that have ties within and beyond themselves. They all relate to one topic and have similar vocabulary. There is "flow" between the sentences and the context or referent base

is larger. A test such as the short responses to the oral questions test was the only alternative to finding a test that would fit the criteria needed.

The two instruments that were less focused on form, the paragraph and response tests, proved to be poor tests in eliciting direct object pronouns from subjects. The cloze test proved that subjects could use the direct object pronoun correctly but they did not do so in either of the less focused on form tests. It is unclear whether subjects were avoiding the form, had forgotten about it, thought it was inappropriate under the circumstances, or chose to answer in complete sentences because this is what they had been taught. What is clear is that on these two tests subjects were able to hide their ability.

The percentage scores from the paragraph test created some problems. Individual subjects were assigned a percentage score and the total of these were then used to determine the mean and other statistical information. But this does not reflect the true picture of their scores because a subject who received 2/4 is considered equal to a subject who received 7/14. Someone who demonstrated correct usage seven times should not be equal to another person who demonstrated correct usage only twice.

Implications for Teaching

Now that we know a little more about variability in interlanguage, the questions become: "So what? How will this affect teaching? How will it influence

placement testing?"

In the classroom, teachers should continue to employ a variety of exercises to stretch students. From what was learned in the present study, teachers have confirmation that context influences learners' success with grammar. Based on the present study, it is the researchers' opinion that just working out of a grammar fill-in-the-blank workbook will not give students the variety of contexts that they need to apply new grammar. Workbooks need to be supplemented with paragraph writing, error analysis, conversation and listening exercises.

Teachers should also work on helping students transfer knowledge from one context to another. Some of these transfer skills will come with using a variety of grammatical exercises, and teachers can also talk about transferring the skills with students. They can join with adult students in dialogue about the transfer of knowledge from one context to another. Showing students that they use a form very well in a cloze exercise but do not use it at all in another exercise may give them the courage or inspiration to try that form in that context and in other contexts.

Giving students opportunities to try the new forms with explicit instructions may also help with transfer. This can be done by using the ideal standard ESL lesson plan where, for example, in a unit on the article, teachers could review the rules for usage, give grammar and cloze exercises about them, and have students analyze a passage by underlining all nouns and circling the articles that come before them. Then, to transfer some of the knowledge they have gained, the students could be asked to write a few of their own paragraphs and underline all the nouns. Then they

would be assigned to double check all of the articles in front of the nouns. They would be editing their own work and in a sense designing their own cloze exercises by filling in the spaces before all of the nouns.

When testing students for placement or progress, it is important not to rely on only one type of test. By using a wide variety of test types, teachers can account for interlanguage variability and gain a better understanding of the abilities of students. The present study has shown that subjects have wide variation in their written interlanguage from task to task. Subjects did not score equally well on the four written tasks that were assigned to them and by using just the results from one test as a basis for promotions would have been inaccurate and incomplete.

It is the researcher's opinion that using a variety of testing tasks does not just apply to written tests. It goes beyond written to include all of the language functions. A mix of listening tests (such as restatements, finding the closest meaning, and following instructions), speaking tasks (such as conversations, interviews, and short talks), and reading tasks (such as skimming, scanning, comprehension and vocabulary) should be added to a variety of grammar and writing tests.

Implications for Further Research

One of the limitations of the present study was the number of subjects. Further research could incorporate more subjects and as a result get more complete data.

Tarone's study had the element of written versus oral as well as the differing

discourse lengths and attention to form. The present study was limited in its scope to just written samples, but it would be interesting and valuable to look at the oral component as well. Perhaps an additional study, all oral, could look at the same four points of grammar and compare results with this one.

Very few of the subjects made use of direct object pronouns in the paragraph and response sections of the research. In the cloze test they were very successful in using them. Further research is needed to find out possible reasons for this. Perhaps subjects avoided the structure. Perhaps they were used to the common teaching technique that requires students to answer in complete sentences and thought that was what was expected in the response section of the test. Or maybe they forgot about it because they were thinking of so many other things. Maybe they did not feel confident in their use of direct object pronouns in the paragraph writing. Perhaps it was the design of the tests, the topics chosen or the time limit that contributed to their choices in grammatical forms. Some suggestions for the design of further research would be to include various topics, allow lots of time, or to present a short lesson on direct object pronouns prior to the writing assignment. Another idea would be to re-examine the data from this study to see how accepting complete sentences (with the full direct object) in the response test changes the data.

About 44% of subjects put the complete noun phrase for the object of the verb in the response test. Future research could include both full noun phrases and pronouns as objects and examine those results. The results of this study were that 28% of responses had no objects for the verbs in the response test.

Because all of the testing instruments in the present research were productive in some way, other testing designs could be used in future studies. This would include creative writing on one end of the scale and a test like multiple choice on the other end.

The order of administering the tests in this study had subjects complete the test with the least attention to form first and the most last. This ensured that subjects would not "learn" from the discrete point grammar and cloze tests and apply their learning on the other tests. In future research, a split study could be done. This would mean that half of the subjects would complete the tests in one order and half in the other order. The results would then be compared.

Tarone's (1985) explanation of relative focus on form is not complete and could be the basis for further investigation. It is debatable how much subjects are focussing on form in each task and it is difficult to measure. One idea is that a series of tests could be administered to second language learners and subjects could be asked about how much they think they were focussing on grammar in each of the tests. Another idea is to include first language learners (with more difficult tests) in such an investigation and ask them were they thought they were focussing on form more. This could then be compared with the results of second language learners.

Tarone's (1985) footnoted idea that some variability may have to do with the differing degrees of speaker (or writer) control is still one aspect of variability that should be looked at. In the present study the paragraph test offered the most writer control, followed by the response, cloze, and discrete point grammar test. Further

research could take the data from the present study and work with it to see if the data would agree that the continuum of writer control has an influence. Perhaps the effect of discourse length or attention to form were not as strong as the influence of writer control.

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APPENDIX A: CORRESPONDENCE

LETTER TO SUBJECTS

Dear ESL Student,

March 12, 1993

In connection with my thesis work for my Masters of Education program at the University of Manitoba, Faculty of Education, I am about to undertake a study. The study will be done within the context of Adult English as a Second Language (ESL) instruction in which I have been teaching for the last five years.

In order to fully understand the best methods to use for measuring learning with regards to certain elements of grammar, it is often necessary to conduct a study that focuses on those elements presented in different ways.

Each volunteer will complete four grammar exercises. The exercises are as follows:

- a. paragraph writing
- b. sentence or phrase responses
- c. fill in the blank
- d. mark the correction

The estimated total time needed to complete all four exercises is about two hours.

Your participation in this study is voluntary. It is important to note that you may withdraw at any time (even during the actual exercises) and can do so by simply indicating you wish to me. Your name will never be used in connection with any of the materials as each volunteer will be designated by a number. Furthermore, your willingness to participate will be kept strictly confidential. I will be the only person to know of your participation and which number you may be. At the end of the study, if you wish, you may receive a summary of the results.

If you would like to participate in this study, please sign the attached form and return it to me. If you have any questions or concerns, you can contact me or my supervisor at the telephone numbers listed below.

Yours sincerely,

Phyllis Mann

Prof. Pat Mathews

CONSENT FORM

Name of Participant _____

I agree to participate in this study by allowing the measuring of my English skills using four exercises. I agree to give two hours to the exercises. I allow the subsequent analysis of the results to be used for research purposes.

I understand that:

- 1) I am being asked to complete four exercises designed to measure grammatical ability.
- 2) all of the information collected in this study will be confidential and anonymous. My name will not be used.
- 3) the total time required is about two hours.
- 4) I am free to withdraw from this study at any time -- even while doing the exercises.

Signature of Participant _____

Signature of Researcher _____

If you would like to receive a summary of the results after the study is complete, please fill out the information listed below.

Print Please

Name _____

Street _____

City/Province _____

Postal Code _____

Exercise 1: Paragraph Writing

You will listen to a short talk on what happens to a cheque at the bank. While you listen you may make notes and look at a diagram on the overhead projector that describes the process. Then you will be asked to write about it in your own words. The diagram will remain on the projector for the entire exercise. You will be asked to write about 100 words or 2 medium paragraphs. A time limit of 20 minutes will be given.

Notes:

WHAT HAPPENS TO A CHEQUE

Continue on the next page.

Did you know that most business transactions in Canada are carried out by cheque? In fact, Canadians are the world's second most prolific cheque users and write over 1.5 billion cheques a year. Each Canadian writes an average of 60 cheques a year. Cheques are also used to pay bills and to pay employees by companies of all sizes. When a person writes a cheque, it is an instruction to his bank to pay out of his account a specified amount of money to a designated person.

Our topic for today is the cheque clearing process or what happens to a cheque from the time it is written to the time it is debited from an account. The system used in Canada is very efficient and economical. The entire cheque clearing process usually takes under 48 hours even if the two banks involved are in different provinces.

It may be easier to understand the process by using an example. To begin with, Jose Gonzales, from Winnipeg, writes a personal cheque to pay for a hotel room in Saskatoon. The cheque is for \$60.00 and is drawn on his Personal Chequing Account at the Royal Bank in Winnipeg near his home. The hotel owner deposits the cheque in his account at the Bank of Montreal in Saskatoon.

A set of numbers printed across the bottom of the cheque guide the cheque steadily along the way as it returns to Mr. Gonzales' bank. The numbers are printed in special typeface and in magnetic ink that allow it to be read and sorted by computers at very high speeds. A set of five numbers indicates the branch, the next set of numbers indicates the bank's name, and the last set of numbers is the account

number. Once a cheque has gone through the clearance system, the amount of the cheque is printed in magnetic ink on the lower righthand corner.

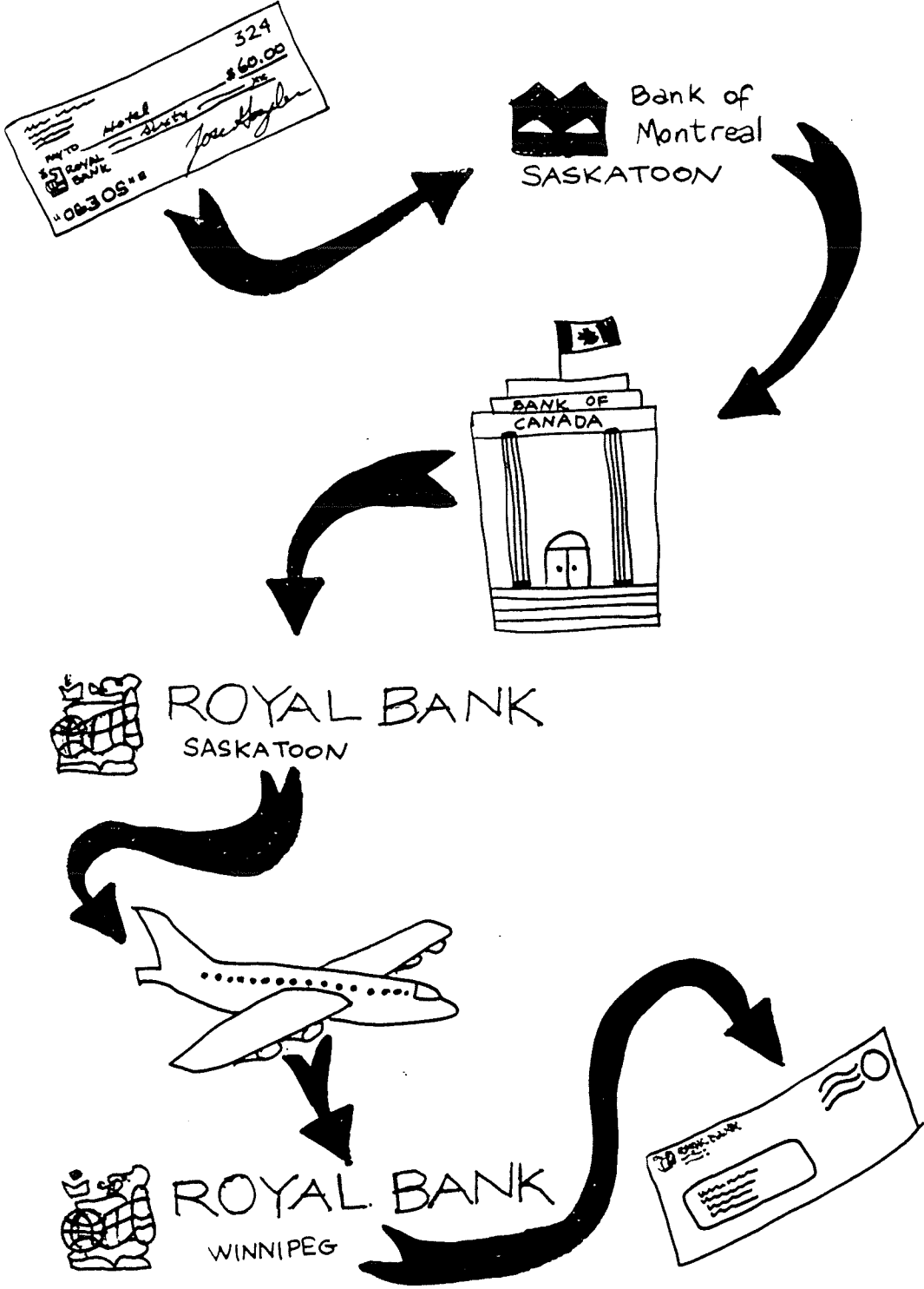
The Bank of Montreal sorts all the cheques for the day, records them and they are picked up by the Bankers' Courier Service and taken to the Bank of Montreal's Regional Data Center.

Jose Gonzales' cheque is then recorded and sent to the Bank of Canada's regional settlement point. Here the balances between all banks are recorded, and differences are sent to the central bank, the Bank of Canada, Ottawa. From there, the cheque goes to the Royal Bank's data center where it is recorded and registered. The cheque is then sent by air courier to the Royal Bank data center in Winnipeg. Once in Winnipeg, the cheque is read, recorded, and sorted. At this time, Jose's account is debited \$60.00. The cheque is sent to Jose's branch bank where they examine it to be sure that Jose Gonzales did sign the cheque. If the signature is valid, the cancelled cheque will go into the vault. Because Mr. Gonzales has a Personal Chequing account, the cheque will be sent to him with his monthly statement at the end of the month.

Now write about the process that a cheque goes through in your own words. The diagram will remain on the overhead projector for the entire exercise. Please write about 100 words or 2 medium paragraphs. If you have any questions ask them now. You have 20 minutes.

Exercise 1: Paragraph Writing

OVERHEAD TRANSPARENCY



APPENDIX C: WRITTEN RESPONSES TO ORAL QUESTIONS TEST PAPER

Exercise 2: Written Responses to Oral Questions

Instructions:

Listen to the statements and the questions following them on the tape and then answer the questions.

You may answer in sentence or phrase form.

Spelling does not matter.

Example:

You will hear:

I need to buy a good pair of running shoes before I can sign up for aerobics class.

What do I need to buy before I can sign up for aerobics class?

You will answer:

a pair of running shoes

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

Go on to the next page.

11. _____
12. _____
13. _____
14. _____
15. _____
16. _____
17. _____
18. _____
19. _____
20. _____
21. _____

Exercise 2: Written Responses to Oral Questions

SCRIPT

Instructions: Listen to the statements and the questions following them on the tape and then answer the questions. You may answer in a complete sentence or just a few words in phrase form. Spelling does not matter.

Example:

You will hear:

I need to buy a good pair of running shoes before I can sign up for aerobics and a tennis racket before I can take tennis classes.

What do I need to buy before I can sign up for aerobics?

You will answer:

a pair of running shoes

1. Katy thinks her boyfriend is wonderful and talks about him all the time.
What does Katy do all the time?
2. To bake an apple pie you need six apples and to bake an apple spice cake you need three.
What do you need to bake an apple pie?
3. Everyone in the courtroom must rise when the judge enters.
When must everyone rise?
4. Studies have shown that the typical healthy North American touches his nose or eyes about three times an hour.
How often do most North Americans touch their nose or eyes?
5. If the workman finds any more cracks he will have to destroy the wall.
What might the workman have to do to the wall?
6. My sister always buys fresh vegetables at the Forks Market.
What does she buy at the Forks Market?
7. After he fixed it, Robert easily connected the computer terminal to the computer.
What did Robert easily do with the computer terminal?
8. Of all the retirement presents my aunt received, she likes the cat that you gave her the best.
What present does my aunt like the best?
9. The professor had to read the examination a few times before he could give

it a passing grade.

What did the professor have to do to the examination?

10. He says he prefers Coke over Pepsi but she doesn't think he can taste the difference.

What does he say?

Go on to the next page.

11. John became so angry about the news report that he picked up the newspaper and threw it at the TV.

What did John do with the newspaper?

12. Although she writes home often, Yoko phones her mother in Japan every other month.

What does Yoko do every other month?

13. Because of the bad weather conditions, all of the roads were closed for the holiday.

What was the result of the bad weather?

14. I'm sure Maria will get the apartment instead of Henry because she knows the landlord.

Why will Maria get the apartment?

15. Ever since Bob got promoted to Manager of the store he has had frequent headaches.

What problem has Bob experienced since his promotion?

16. Once you have had your application approved and signed by a professor you have to take it to the admissions office to be processed.

What do you do with your application after a professor has approved it?

17. While he was making dinner, the cook accidentally burned the chicken.

What did the cook accidentally do to the chicken?

18. The Moon appears to be larger when seen near the horizon, than when viewed overhead.

What seems larger near the horizon?

19. A barometer measures air pressure while a thermometer measures temperature.

What does a barometer do?

20. She asked the taxi driver to drop her off at the Stadium before the football game.

Where did she ask the taxi driver to drop her off?

21. The heavy snowfalls this past winter have caused damage to many rooftops. What have the snowfalls damaged?

Exercise 3: Cloze Exercise

Instructions: Put the one word that best fits into the blanks in the following paragraphs.

Stella and Joe gave _____ party for themselves. It was not like any of their other _____. It was their twenty-fifth anniversary party. After all the _____ of being married, they were still very happy and loved each _____ very much. Joe bought Stella a diamond pin and gave it to _____ at the party.

Later, _____ friend asked _____ how they managed to stay happily married through the _____. Joe answered:

"That's easy. I take care of the big chores and she _____ care of the little _____."

Stella agreed with _____. She said: "That's right. I decide where the children should go to school, where we should live, how we should invest our money, and where we should go on vacation. He _____ how to keep peace in _____ world, how to solve the country's economic problems, and how to eliminate crime."

Go on to the next page.

It is June. The sun is in the sky. It is very hot. Josie is tired of school. She _____ to be at _____ beach. She cannot sit in her seat. Her best friend Sarah is also in the class. She feels the same way as Josie. Josie gets up and talks to _____. The teacher, Mr. Rula, hears the noise and says, "Josie, sit down _____ be quiet." Josie _____ down. Mr. Rula continues with the lesson. The other _____ do not want to listen to _____ either. Josie gets up and _____ to another friend.

"How many _____ do I have to tell you to sit down and be quiet?" asks Mr. Rula. He is very annoyed with _____. Josie continues talking.

"O.K.," says Mr. Rula, "if you want to talk, then come to the front of _____ classroom and be the teacher."

"All right," agrees Josie. She _____ to the front of the classroom and says, "quiet, everyone, I am _____ new teacher, and I say "Class dismissed.""

Exercise 4: Correct the sentences.

Instructions: Correct the following sentences.

You may have to add a word or change a word.

Some of the sentences are correct.

No sentence has more than one error in it.

Examples: Our professor had to correct 200 examinations yesterday.

Lisa folded the cloth and put ^{it} away.

-
1. This university attracts a lot of students because it have a good chemistry department.
 2. Our department usually has a total of about 300 students.
 3. I can't go shopping until you give the money.
 4. Zellig thought he saw old friend across the street.
 5. A tornado usually touches down more than once before it disappear completely.
 6. This year our department accepted two extra student into the program.
 7. Two of the students who are in your class live next door to me.
 8. Jones received best grade in our physics class last quarter.
 9. I will not know what is in the package until I receive.
 10. Many sedimentary rock are formed from eroded rock fragments.
 11. Brian walked in and sat down on the couch.
 12. The baseball player that Mac likes the most always try to hit a home run.
 13. Last year students had to purchase three book for that course.
 14. She took the book out of her bag and put in the return box.

Go on to the next page.

15. I like to go to zoo with my children to look at all the animals.
16. Fifty percent of all graduate student in my field will become professors.
17. He caught the ball and then threw to Tom.
18. John walked in when we were talking about him.
19. Mary wanted to make appointment to see her psychology professor.
20. The biggest tiger in the zoo seems to be restless today; maybe he need to be fed.
21. This is the book that I was telling you about.
22. Every day Jonah go to the hospital to visit his new baby sister.
23. I paid over forty dollar for just three bags of groceries!
24. My chemistry teacher gave us surprise examination last Monday.
25. She took the poster and put on the bulletin board.
26. Have you seen new house that Maria moved into?
27. My doctor say that I should take vitamins in the winter to prevent illness.
28. The photographer put the little girl on the chair and tried to get to smile.
29. Bill borrowed my geography textbook three weeks ago and has not returned it.
30. The Milky Way galaxy is 13,000 light-year in diameter.

APPENDIX F: INDIVIDUAL SCORES

Table 1

Individual Scores: Grammatical Accuracy in Obligatory Context for Four English Forms in Four Tasks

| SUBJECT | STRUCTURE | | | | | | | | | | | | | | | |
|---------|--------------|-----|-----|-----|------------|-----|-----|-----|------------|-----|-----|-----|---------------|-----|-----|-----|
| | A: 3rd Pers. | | | | B: Noun Pl | | | | C: Article | | | | D: DO Pronoun | | | |
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| 1 | 3/5 | 5/6 | 5/6 | 5/6 | 2/4 | 4/6 | 3/6 | 4/6 | 11/16 | 4/6 | 6/6 | 3/6 | 1/1 | 1/6 | 6/6 | 4/6 |
| 2 | 3/7 | 4/6 | 5/6 | 4/6 | 3/8 | 5/6 | 5/6 | 6/6 | 5/13 | 6/6 | 4/6 | 3/6 | 0/2 | 2/6 | 6/6 | 3/6 |
| 3 | 3/3 | 4/6 | 4/6 | 5/6 | 0/2 | 3/6 | 4/6 | 3/6 | 11/12 | 6/6 | 6/6 | 4/6 | 2/2 | 4/6 | 6/6 | 5/6 |
| 4 | 9/9 | 5/6 | 4/6 | 4/6 | 3/5 | 4/6 | 5/6 | 5/6 | 19/31 | 6/6 | 4/6 | 3/6 | 3/4 | 2/6 | 6/6 | 3/6 |
| 5 | 10/18 | 1/6 | 2/6 | 2/6 | 7/10 | 3/6 | 6/6 | 3/6 | 21/27 | 4/6 | 5/6 | 3/6 | 0/3 | 0/6 | 6/6 | 1/6 |
| 6 | 2/2 | 0/6 | 6/6 | 6/6 | 0/1 | 3/6 | 4/6 | 5/6 | 11/15 | 3/6 | 5/6 | 6/6 | 0/0 | 2/6 | 5/6 | 5/6 |
| 7 | 7/9 | 2/6 | 2/6 | 5/6 | 4/4 | 4/6 | 3/6 | 4/6 | 16/20 | 2/6 | 3/6 | 3/6 | 1/3 | 3/6 | 6/6 | 3/6 |
| 8 | 2/5 | 4/6 | 5/6 | 4/6 | 0/2 | 4/6 | 3/6 | 6/6 | 4/9 | 1/6 | 5/6 | 4/6 | 1/5 | 3/6 | 5/6 | 6/6 |
| 9 | 3/5 | 2/6 | 2/6 | 3/6 | 3/9 | 4/6 | 5/6 | 2/6 | 20/25 | 6/6 | 5/6 | 3/6 | 0/3 | 0/6 | 6/6 | 1/6 |
| 10 | 0/1 | 1/6 | 1/6 | 1/6 | 1/3 | 1/6 | 2/6 | 0/6 | 4/7 | 0/6 | 6/6 | 1/6 | 0/1 | 0/6 | 6/6 | 1/6 |
| 11 | 4/8 | 5/6 | 2/6 | 3/6 | 5/7 | 4/6 | 4/6 | 3/6 | 4/18 | 3/6 | 4/6 | 1/6 | 1/2 | 1/6 | 6/6 | 4/6 |
| 12 | 6/6 | 3/6 | 6/6 | 5/6 | 2/2 | 4/6 | 5/6 | 5/6 | 2/10 | 3/6 | 5/6 | 4/6 | 1/2 | 3/6 | 6/6 | 3/6 |
| 13 | 1/1 | 2/6 | 4/6 | 3/6 | 2/5 | 4/6 | 6/6 | 5/6 | 15/19 | 4/6 | 4/6 | 2/6 | 0/5 | 1/6 | 5/6 | 5/6 |
| 14 | 5/8 | 1/6 | 4/6 | 3/6 | 0/0 | 3/6 | 5/6 | 6/6 | 8/19 | 3/6 | 3/6 | 0/6 | 0/1 | 0/6 | 3/6 | 2/6 |
| 15 | 5/7 | 2/6 | 4/6 | 5/6 | 1/1 | 4/6 | 6/6 | 4/6 | 14/19 | 4/6 | 3/6 | 2/6 | 0/3 | 2/6 | 5/6 | 2/6 |
| 16 | 0/0 | 1/6 | 1/6 | 1/6 | 4/7 | 2/6 | 0/6 | 3/6 | 6/13 | 2/6 | 4/6 | 1/6 | 0/2 | 0/6 | 2/6 | 2/6 |
| 17 | 2/3 | 2/6 | 4/6 | 2/6 | 1/2 | 0/6 | 2/6 | 2/6 | 7/10 | 1/6 | 5/6 | 0/6 | 0/0 | 0/6 | 5/6 | 0/6 |
| 18 | 10/11 | 5/6 | 6/6 | 6/6 | 6/6 | 5/6 | 6/6 | 6/6 | 20/23 | 3/6 | 6/6 | 2/6 | 0/1 | 3/6 | 6/6 | 5/6 |
| 19 | 7/8 | 4/6 | 4/6 | 6/6 | 9/9 | 4/6 | 6/6 | 6/6 | 15/27 | 3/6 | 6/6 | 2/6 | 0/1 | 1/6 | 5/6 | 4/6 |
| 20 | 3/3 | 5/6 | 1/6 | 2/6 | 1/1 | 5/6 | 5/6 | 5/6 | 6/17 | 5/6 | 4/6 | 1/6 | 0/2 | 0/6 | 3/6 | 5/6 |
| 21 | 4/6 | 5/6 | 4/6 | 6/6 | 4/8 | 5/6 | 6/6 | 6/6 | 15/19 | 4/6 | 4/6 | 2/6 | 1/3 | 2/6 | 6/6 | 5/6 |
| 22 | 5/5 | 5/6 | 4/6 | 3/6 | 4/4 | 5/6 | 5/6 | 4/6 | 4/6 | 5/6 | 4/6 | 4/6 | 0/0 | 0/6 | 6/6 | 4/6 |
| 23 | 6/8 | 5/6 | 5/6 | 6/6 | 6/9 | 5/6 | 6/6 | 5/6 | 26/35 | 5/6 | 5/6 | 3/6 | 1/3 | 1/6 | 3/6 | 5/6 |
| 24 | 5/5 | 4/6 | 4/6 | 2/6 | 2/4 | 5/6 | 5/6 | 3/6 | 15/17 | 6/6 | 6/6 | 4/6 | 0/2 | 5/6 | 5/6 | 5/6 |
| 25 | 2/6 | 2/6 | 2/6 | 2/6 | 1/2 | 5/6 | 5/6 | 5/6 | 19/19 | 5/6 | 5/6 | 5/6 | 0/4 | 2/6 | 1/6 | 5/6 |
| 26 | 3/5 | 5/6 | 6/6 | 6/6 | 2/4 | 2/6 | 6/6 | 5/6 | 11/17 | 4/6 | 5/6 | 3/6 | 1/2 | 3/6 | 5/6 | 5/6 |
| 27 | 4/6 | 4/6 | 4/6 | 4/6 | 13/13 | 5/6 | 5/6 | 6/6 | 26/30 | 6/6 | 6/6 | 6/6 | 0/2 | 2/6 | 6/6 | 5/6 |
| 28 | 5/6 | 6/6 | 5/6 | 6/6 | 2/3 | 6/6 | 6/6 | 5/6 | 17/18 | 6/6 | 5/6 | 6/6 | 5/5 | 3/6 | 5/6 | 6/6 |

Note: In this table the numerator is the number of times the subject correctly supplies the form, and the denominator is the number of obligatory contexts for that form.

Test 1 Paragraph
 Test 2 Response
 Test 3 Cloze
 Test 4 Discrete Point