

THE DEVELOPMENT OF METHODS  
FOR ASSESSING VERB USAGE IN WRITTEN LANGUAGE  
AT GRADES EIGHT AND TWELVE

ACCEPTED

ACULTY OF GRADUATE STUDIES

by

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We accept this thesis as conforming  
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#### ABSTRACT

This study intends to investigate how verb usage affects the quality of written language at Grades 8 and 12. Instrumentation measuring verb frequency, verb maturity, verb form, verb function and verb intensity is developed from existing verb and semantic theory.

The sampling technique used for the study was the collection of fictional narrative writing from Grade 8 and Grade 12 students in the Cowichan and Lake Cowichan School Districts, British Columbia. Teachers labelled individual writing samples as written by either low or high achievers in written expression. Three judges, using an holistic rating scale, determined the communicative quality of individual samples.

The independent variables of grade and ability were related to the dependent variables of verb frequency, verb maturity, verb form (finite), verb form (non-finite), verb form (errors), verb function (dynamic), verb function (stative), verb intensity (basic), and verb intensity (extended). Applied to these variables were a multivariate

analysis of variance and a stepwise multiple linear regression.

The MANOVA indicated significant mean differences for verb frequency (grade and ability), non-finite verb forms (grade and ability), verb errors (ability) and extended verb intensity (grade). The regression analysis indicated the following significant predictors of writing quality: verb frequency (Grades 8 and 12), verb maturity (Grade 12), and non-finite verb forms (Grade 12). Verb intensity (basic), verb form (finite), verb function (dynamic) and verb function (stative) yielded no significant results.

This study suggests that there are certain developmental verb usage trends, that verb usage affects the quality of students' written language and that instrumentation, effective in varying degrees, can be developed to measure verb usage.

The study concludes with a verb theory applicable to secondary language instruction. This theory combines the results of the study with existing research. It recommends that the teacher be aware of students' prior knowledge of verbs, that the teacher understand the English verb system itself, that verb learning is an acquisitional process and that a verb-oriented composition course will be of value to

students.

The research conducted for this thesis was done in collaboration with Miss Susan Pye. All tables and appendices used herein likewise appear in Miss Pye's study.



## TABLE OF CONTENTS

	PAGE
ABSTRACT .....	ii
TABLE OF CONTENTS .....	v
LIST OF TABLES .....	viii
ACKNOWLEDGEMENT .....	ix
CHAPTER	
I. THE PROBLEM .....	1
Context of the Problem .....	1
Problem .....	4
Research Questions .....	5
Definition of Terms .....	6
Design of the Study .....	10
Limitations of the Study .....	11
Significance of the Study .....	12
Organization of the Study .....	12
II. REVIEW OF THE LITERATURE .....	14
Theoretical Framework .....	14
Verb Theory .....	14
Semantic Theory .....	17
Written Discourse Theory .....	24
Summary of the Theoretical Framework .....	29
Empirical and Methodological Support .....	30
Summary of Chapter II .....	34
III. THE DESIGN OF THE STUDY .....	35

	PAGE
Subjects and Participants .....	35
The Task .....	37
Instrumentation .....	38
Description of Instrumentation Procedures ...	38
Development of Objective Instrumentation ....	45
Development of Subjective Instrumentation ...	46
Validation Process .....	49
Pilot Study .....	49
Analysis of Data .....	51
Statistical Analysis .....	54
Summary .....	55
IV. ANALYSIS OF THE DATA .....	56
Statistical Analysis of Data .....	56
Findings .....	56
Question 1 .....	56
Question 2 .....	57
Question 3 .....	68
Summary of Findings .....	68
Verb Frequency .....	68
Verb Maturity .....	69
Verb Form .....	69
Verb Intensity .....	70
V. DISCUSSION, CONCLUSIONS AND IMPLICATIONS .....	71
Discussion .....	72

	PAGE
Instrumentation .....	72
Significant Dependent Variables .....	76
Conclusions .....	78
Implications for Further Research .....	80
Implications for Instruction .....	81
REFERENCES .....	85
APPENDIX A: LETTER TO SCHOOL DISTRICT TEACHERS ...	90
APPENDIX B: VALIDATION PROCESS .....	95
APPENDIX C: PILOT STUDY .....	106
APPENDIX D: GENERAL IMPRESSION HOLISTIC RATING ...	115

## LIST OF TABLES

TABLE	PAGE
1. Verb Frequency Data Analysis Form .....	40
2. Verb Maturity Analysis Form .....	41
3. Verb Form and Verb Function Table .....	43
4. Verb Intensity Data Analysis Form .....	44
5. Initial Verb Form and Verb Function Interactive Chart .....	47
6. MANOVA: Mean Verb Frequency in Written Language .....	59
7. MANOVA: Mean Verb Form (Non-finite) in Written Language .....	60
8. MANOVA: Mean Verb (Errors) in Written Language .....	61
9. MANOVA: Mean Verb Intensity (Extended) in Written Language .....	63
10. Stepwise Multiple Linear Regression: Grade 8 Written Language .....	64
11. Stepwise Multiple Linear Regression: Grade 12 Written Language .....	65

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To teachers and researchers, I hope that, in some small way, this thesis may promote an interest in and a realization of the importance of the English verb.

This thesis is dedicated to my wife, Lynn, and to my two children, Paul and Kathryn.

## CHAPTER I

### THE PROBLEM

#### Context of the Problem

Increased public concern about the inferior literacy skills of high school graduates has led to the implementation of assessment programs by provincial Ministries of Education and to the re-evaluation of Language Arts curricula. Specifically, the literacy issue involves criticism of students' written language skills. It is believed that the literate individual should have the ability to write clear, well-organized, and syntactically correct passages. The critics of the educational system question why students apparently lack the competence to communicate their ideas effectively.

Researchers in education, psychology, linguistics, and philosophy have responded to the written communication issue with diverse language studies. There are bodies of research based on the writing process, the English verb system, and the semantics of language. However, relatively few studies have attempted to explore the usage of the English verb and

its effect upon the transmission of meaning in students' written language.

Loban (1976) recognized the importance of the manipulation of verbs in written language, but he was unable to arrive at satisfactory conclusions in his longitudinal study. Loban comments, "Intuitively, also, many speakers feel the English verb is the force, the vitality giving life to sentences. Thus it would seem that an examination of our subjects' use of verbs would pay rich dividends" (p.77).

Therefore, research into verb usage and its effects upon the production of students' written language should reveal useful information to the classroom teacher.

Research of the English verb system has centred on four major areas: the syntactic nature of verbs (Dyer, 1981; Joos, 1964; Palmer, 1974; Quirk, Greenbaum, Leech & Svartvik, 1972; Richards, 1981), the semantic analysis of the verb (Huttenlocher et al. 1979; Norman et al., 1975; Paivio, 1971), the acquisition of verb usage (Bloom et al., 1980; Loban, 1976) and the teaching of the verb (McKay, 1980; White, 1978; Zamel, 1982). Researchers have yet to relate the quality of written communication with verb usage, even though it is the verb system which causes the greatest acquisitional problem for young writers. Palmer (1974)

states, "For almost any language the part that concerns the verb is the most difficult. Learning a language is to a very large degree learning how to operate the verbal forms of that language" (p.1).

By describing the abstract nature of verbs, Paivio (1971) supports the acquisitional position of the verb theorists. He then incorporates psychological theory with semantic and syntactic theory in order to explain how subjects understand and create sentences. Paivio criticizes empirical studies which have tended to isolate the syntactic and semantic components of our language, "These inseparable components of syntacticity and semanticity of language behavior constitute the puzzle that psycholinguistic theories and empirical studies have attempted to solve" (p.394). Paivio employs a holistic approach in his research into the underlying psychological processes involved in effective communication.

Further research questions are suggested by Loban (1976), Palmer (1974), and Paivio (1971). They acknowledge the theoretical and empirical problems arising from studies of our language. However, it is the evolution of a unified theory of communication which continues to give educators the knowledge to improve classroom instruction.

### Problem

The purpose of this study was to explore the usage of the English verb and its effect upon the transmission of meaning in students' written language. Verb usage was defined by the dependent variables: verb frequency (calculated from a type-token ratio), verb maturity (estimated by The Living Word Vocabulary, Dale & O'Rourke, 1976), verb form, verb function, and the intensity of verb meaning. The five components of verb usage were then related to the quality of the meaning conveyed.

This study also explored the verb usage variances of high and low achievers in written language at Grades 8 and 12. The researcher developed instruments which assessed the changing patterns in verb usage at these grade levels.

Thus, the study focused on the development of instrumentation which enabled the researcher to measure verb frequency, verb maturity, verb form, verb function, and the intensity of verb meaning. In addition, the researcher surveyed extant verb theory and semantic theory in order to propose a theory of verb usage that is applicable to the teaching of written language at the secondary level.

The study explored the development of instrumentation,

the validation of this instrumentation, and the formulation of a verb theory in relation to students' written language. This study did not attempt to relate a verb usage theory to other communication modes; that is, speaking, listening, and reading.

### Research Questions

The study emphasizes the development of instrumentation, the validation of this instrumentation, and the formulation of a verb theory as it relates to students' written language. Thus, the research questions reflect the theoretical and exploratory nature of this study.

The following questions are explored:

1. Can existing verb, semantic and written discourse theory be used to develop instrumentation that will measure verb usage in students' written language?
2. Do relationships exist between verb frequency, verb maturity, verb form (finite/non-finite/errors), verb function (dynamic/stative), and verb intensity (basic/extended), and:
  - 2.1 Grade 8 and 12 level students,
  - 2.2 low and high ability language students,
  - 2.3 the written language quality, as determined by

holistic rating?

3. Is it possible to combine existing verb, semantic, and written discourse theory into a verb usage theory applicable to written language instruction at the secondary level?

#### Definition of Terms

The following definitions are associated with key terms used in this study. The definitions are grouped according to membership within categories.

Verb frequency. The frequency of verbs in a written passage as measured by the type-token ratio.

Type-token ratio. (T.T.R.) A measure of the variability of language. In verbs, for example, the T.T.R. for a passage would equal the number of different verbs (types) divided by the total number of verbs (tokens) in that passage. For the purposes of this study, thirty verbs were selected from students' written samples in the following standardized manner: the first ten verbs, the middle ten verbs and the final ten verbs.

Verb maturity. The maturity of verbs used in a written passage calculated from The Living Word Vocabulary (Dale &

O'Rourke, 1976). Each verb in the written sample was listed according to the grade level index; that is, Grade 4, 6, 8, 10, 12, 13 and 16.

Verb form and verb function. The contextual classification of verb form and verb function as described by the form and function table (see Table 3).

Verb forms. For the purposes of this study, verb forms were classified syntactically in the following manner:

Finite verbs. a finite verb (in Quirk et al., 1972) is one that requires a subject that can be taken from the list: I, we, he, she, and they (for example, I walk, they could walk). A finite verb can occur as the verb phrase of a main clause, it has tense distinction, and it has mood which indicates the writer's attitude to the predication (that is, indicative, imperative or subjunctive). (p.71-75)

Non-finite verbs. a non-finite verb phrase (in Quirk et al., 1972) has no tense distinction, no imperative mood, and cannot occur in construction with a subject of a main clause. Non-finite verbs include infinitives, participles, and gerunds (for example, to walk, walking). (p.75-76)

Errors. Errors are those verbs which do not conform syntactically and/or contextually to conventional English usage.

Elliptical constructions. An elliptical construction refers

to the usage of a verb in which an element that can be supplied from a neighbouring construction is not expressed (for example, I work harder than you [work].).

Verb functions. For the purposes of this study, the verb functions are classified according to their use in the following manner:

Dynamic verbs. a dynamic situation (in Quirk et al., 1972) may involve change and development and may have a beginning, middle, and end. A dynamic verb, which refers to a dynamic situation, can describe a complete or incomplete situation, by use of the simple form or progressive aspect respectively. (p.93-97). There are five types of dynamic verbs:

1. Activity verbs (e.g., abandon, ask, call, drink, eat, learn, listen, look, read, say, throw, work, write);
2. Process verbs (e.g., change, deteriorate, grow, mature, slow down, widen);
3. Bodily sensation verbs (e.g., ache, itch, felt, hurt);
4. Transitional event verbs (e.g., arrive, die, fall, land, leave, lose);
5. Momentary verbs (e.g., hit, jump, kick, knock, nod, tap).

Stative verbs. a stative situation (in Quirk et al., 1972) is one that describes the quality or property of something.

A stative verb suggests a situation which is considered to remain constant from one moment to the next. Generally speaking, stative verbs occur in the simple form. (p.93-97)

There are two types of stative verbs:

1. Inert perception and cognition verbs (e.g., adore, astonish, believe, doubt, guess, hate, hear, know, like, realize, recognize, think); and

2. Relational verbs (e.g., be, belong, concern, contain, cost, have, include, need, owe, possess, seem, sound).

Verb intensity. The intensity of verbs used in a written passage indicated by the verb's basic meaning and its extended meanings. The basic meaning of a verb is its most common definition (for example, the basic meaning of "strike" is to apply a blow). The extended meanings refer to other meanings less commonly associated with the verb (for example, one extended meaning of "strike" is to exercise job action against another authority). Thus, verb intensity is described as the quality of meaning possessed by each verb.

Fictional narrative mode of discourse. The creation of a composition from real or imagined sequences of events. The writer uses interpretive and/or imaginative thought to intentionally entertain the audience.

Quality of writing. The assessment of written language according to an holistic rating scale.

Written language ability. The student's level of achievement in written language, as identified by the classroom teacher's informative and summative evaluation techniques. The teacher rates the student as either a high, middle, or low achiever in written language.

#### Design of the Study

Students' written samples were collected from natural classroom situations; that is, the researcher did not provide specific lesson plans. Cooperating classroom teachers in the Cowichan and Lake Cowichan School Districts, British Columbia, gathered extant samples of students' written compositions according to criteria established by the researcher. For the purposes of the study, the analysis of the samples was restricted to those written in the fictional narrative mode and to the compositions of high and low achievers in written language. The selected samples were used to develop and verify the effectiveness of instrumentation.

The instrumentation measures verb usage in students'

written language samples. The analysis of these samples employs six measures: verb frequency, verb maturity, verb form, verb function, and verb intensity, and the quality of the meaning conveyed. Inferential statistics are used in the analysis of data. A thorough explanation of the design is provided in Chapter III.

#### Limitations of the Study

The researcher acknowledged the following limitations in the study:

1. The samples of writing were collected from Grade 8 and 12 students registered in the Cowichan and Lake Cowichan School Districts. This imposed both grade and geographical limitations.

2. Written samples selected for the study were solely in the fictional narrative mode of discourse. There were no comparisons made between the other modes of discourse - description, factual narration, or exposition/argument.

3. There was no recognition of differences in gender.

4. The research design employed limited controlled conditions. For example, samples of writing were collected from a natural classroom environment.

5. No cross-cultural factors were taken into consideration in this study.

6. The instrumentation developed was restricted to the analysis of verbs in students' written discourse and to the frequency, maturity, form, function and intensity of those sampled verbs.

### Significance of the Study

The relationship of verb usage with communicative efficiency of written language gives educators additional insight into the composing process. In other words, the analysis of an essential component of our language - the verb system - may indicate how the writer's control of verb usage affects the quality of writing. This study may also prompt further research into the effect of verb usage on other discourse modes. In summary, the information revealed by the present study may lead to increased awareness of the significance of verb usage in students' written language, and ultimately to more effective instructional strategies.

### Organization of the Study

Chapter I introduced the conceptual framework for the study. It outlined the problem, listed research questions, defined pertinent terms, briefly described the research

design, stated limitations, and discussed the significance of this study.

The remaining chapters of the study are organized as follows:

Chapter II: Review of the Literature

III: Design of the Study

IV: Analysis of the Data

V: Discussion, Conclusions and Implications

## CHAPTER II

### REVIEW OF THE LITERATURE

The purpose of this chapter is to establish a theoretical framework through the discussion of verb theory, semantic theory, and written discourse theory. In addition, it provides a summary of certain empirical and methodological background.

#### Theoretical Framework

Verb theorists (Joos, 1964; Palmer, 1974; Quirk et al., 1972), semantic theorists (Norman et al., 1975; Paivio, 1971), and written discourse theorists (Britton, 1971; Gibson, 1969; Hirsch, 1977; Kinneavy, 1971; Lloyd-Jones, 1977; Moffett, 1968) provide a theoretical framework for this study. In order to propose a verb theory relevant to written language instruction, the views of these theorists require discussion.

#### Verb Theory

The verb theorists permit the present researcher the

rationale necessary to devise an instrument that will assess both verb form and verb function in written discourse.

As a descriptive linguist, Joos (1964) contends that because language is finite, it can be broken down into a list of countable elements. He states that "the topic under discussion can be totally exhausted by giving a list of parts and relations that is not an endless list" (p.4.). Assuming that "all languages are equally easy, taken as wholes; but each has its greatest difficulties located in its own place" (p.vii), Joos describes a verb complex syntactic breakdown of the verb system, which he believes to be the most difficult grammatical aspect of the English language. For the purposes of this study, Joos' dual classification of finite and non-finite verbs establishes a foundation for this study's analysis of verb form.

Palmer (1974) supports the position of Joos, but extends his theory to include verb function. This aspect of the verb serves to explain the semantics of the verb system more closely than does verb form. Palmer differentiates linguistic verb patterns "first of all formally, in the way in which the linguistic material is organized (the verb form), and secondly in the type of information carried (the verb function" (p.1.).

Thus, Palmer maintains the finite/non-finite categories of Joos, but adds distinct verb functions: voice, progressivity, non-progressivity, tense, modal auxiliaries, marginal verbs, and compound verbs. However, for the purposes of this study, these functional categories do not adequately describe the semantic aspects of the English verb.

Quirk et al. (1972), by combining traditional grammatical theory with several more contemporary linguistic theories, devised a complex verb system scheme, consisting of verb form (finite/non-finite) and verb function (dynamic/stative). The dynamic function consists of several subdivisions: activity, process, bodily sensation, transitional event, and momentary verbs, while the stative function includes inert perception and cognition, as well as relational verbs. This scheme provides the foundation necessary to develop an instrument that will measure verb function as employed in written language.

Quirk et al. warn of the necessity to classify verbs from a contextual point of view, when they state that, "Although it is convenient to speak of 'dynamic' and 'stative' verbs, it is important to note that it would be more accurate to speak of 'dynamic' and 'stative' uses of verbs" (p.95). The current study maintains this contextual

analysis of verb usage and deduces how such usage affects the transmission of meaning.

Thus, the theories of Joos, Palmer, and Quirk and associates, give the current study some of the basic components of the verb system. However, it is necessary to explore this system further, since form and function fail to connect the meaning of verbs with the communication process. Recent semantic theorists, such as Norman et al. (1975) and Paivio (1971), describe the more covert processes involved in communication, thus giving this study the basis for a qualitative assessment of verb usage.

### Semantic Theory

The question of defining meaning has given rise to many semantic theories which have attempted to explain both properties and relations, and to interpret the communicative process. Fodor (1977) states:

The question "What is meaning?" has too often been misconstrued as a request for a simple, direct answer (e.g., "The meaning of an expression is that to which it refers.") when it is really a request for a highly articulated system for describing, generalizing, and predicting a wide range of specific semantic observations. (p.10)

Identity theories, an early method of describing semantic relations and properties, were based on the referential theory, the ideational theory, and the behaviorial theory. The first associated meaning in an expression with that to which it refers, the second defined meaning as the individual's idea, and the third explained meaning as the response that it elicits. Fodor (1977) summarizes the identity theories:

These theories thus do not give correct answers to the question of what meaning is. But they might nevertheless at least specify the identifying conditions on meanings, i.e., tell us when the meaning of two expressions will be identical and when they will be different. (p.14)

The semantic use theories expanded the limited scope of the identity theories. The theories of verification, speech acts, and truth conditions believed that meaning refers to the specific use of a word or expression. Fodor (1977) explains the role of language:

Language is integrated into our behavior and our interactions with others in an intimate way. We USE it to give commands, to answer questions, to greet each other, to argue, and so on.... The proper characterization of a linguistic expression must include an account of how it is used and what it is used for.

(p.19)

Verification theory stressed that the meaning of declarative sentences could be viewed only in the manner in which they could be proven true or false, and thus their meaning was merely a statement of true-false conditions.

Speech acts theory expanded verification theory to include both imperative and interrogative sentences. The meaning in these types of sentences was determined by the speaker's intentions.

Truth conditions theory integrated verification and speech acts theory by explaining meaning as the conditions which would logically make an expression true.

Linguistic semanticists, in contrast to the philosophical beliefs of reference and truth, connected semantic components to generative grammars. The three theories of interpretive semantics, extended standard, and generative semantics defined meaning with generative grammar as a framework. As Fodor states, these theories did vary the relationships between semantic and syntactic structure:

A linguistic theory must specify how syntactic and semantic structures are related, and it is to be

expected that different views about the relationship between them will go along with different views about the nature of the structures that are to be related. (p.63)

Thus, the interpretive semantic theory defined the meaning of a sentence through its deep structure, whereas the extended standard theory added surface structure to deep structure as a determiner of meaning.

Generative semanticists related deep structures to surface structures, while eliminating the rules of semantics governing specific lexical items.

The rather complex theories of both early and current semanticists provide the foundation necessary to discuss the semantic theory more relevant to this study. Norman et al. (1975) and Paivio (1971), in particular, influence the creation of a verb theory applicable to written language instruction.

Norman et al. (1975) maintain that "information within human memory can be represented by means of an active structural network" (p.35) consisting of semantic deep structure decomposed into a "labeled, connected network or graph [with] nodes interconnected by a set of relations"

(p.35). Thus, comprehension involves the integration of new information into already-existing structures in a person's mind. This framework, or schema, guides the interpretation of information and initiates the search for further information that will serve to complete the structure.

Such a structural network requires that the verb system must be decomposed into simpler, more manageable components. Consequently, the current study divides the meanings of verbs into their basic sense as well as their extensions. By such a two-way decomposition, the researcher may determine some of the psychological processes involved in meaning.

Gentner (in Norman et al., 1975), by focussing on verbs of possession, lent support to this study's analysis of basic and extended meanings. She maintained that these verbs possess their basic possessive sense as well as certain metaphorical extensions. In addition to this semantic division, Gentner also hypothesized a developmental process wherein the meanings of words progress gradually through a series of stages. She explains, "In the stages before all the necessary features are added to the representation of a word, the child's use of the word indicates that its meaning for him lacks some of the

features of the adult meaning" (p.233).

Evans (1981) provided a "model of assumed relation of semantic space to verbal stimuli" and stated that "meaning is an active and growing process occurring within the individual's cognitive functioning" (p.1). Using such psychological processes as perception, symbolization and abstract thinking, along with experience and social values, the individual gradually develops semantic concepts.

Evans' model includes a multidimensional reservoir which serves to process language. Therefore, meaning is dependent upon the features that make up this semantic space:

The dimensions, made up of the way meanings of words can vary, are conditioned behaviors resulting from the individual's learning history. In other words, the individual learns that words can identify different characteristics or qualities of what is perceived, i.e., physical attributes, logical relations, spatial relations, use, etc. (p.3)

Thus, it is evident that individual differences to a great extent determine both the availability and the existence of various dimensions.

Paivio (1971) hypothesized a somewhat different theory in attempting to explain the transmission of meaning. He suggests that within individuals there exists a dual coding system consisting of nonverbal imagery as well as verbal processes. With time, the individual is able to deal more effectively with abstraction; that is, with information more temporally and spatially remote.

In addition, Paivio maintains that neither nonverbal imagery nor verb processes functions independently, but rather operate interactively. He states:

Which mode will be functionally dominant in a given situation will depend on the nature and demands of the situation.... Imagery is particularly functional when the task is relatively concrete, and verbal processes become increasingly necessary for both the "flights" and the "perchings" of the stream of thought as the task is more abstract. (p.33)

In connection with the current study, it is important to note that Paivio recognizes the relative abstractness of verbs when compared to nouns. Whereas nouns "symbolize objects and situations" (p.31), verbs possess a more dynamic function because they "effect transitions in the stream of thought by virtue of their capacity to represent movement

and change" (p.31).

Paivio's psychological viewpoint of explaining meaning through structures within the individual may, in fact, suggest the procedures used as individuals choose specific verbs. This study's focus upon the syntactic and semantic analysis of verbs and upon the internal evidence suggested by Paivio may reveal the effect of verb usage on meaning.

Verb theory and semantic theory serve to establish a theoretical framework for the instrumentation developed in this study. A review of written discourse theory, which follows, supports the choice of fictional narration as an appropriate discourse mode for study.

### Written Discourse Theory

Three distinct theories of written discourse have direct application for this study. Briefly, these are the purpose of discourse; the speaker, subject, audience relationship; and the psychology of effective communication.

Kinneavy (1971) proposed that, "purpose in discourse is all important. The aim of discourse determines everything else in the process of discourse" (p.48). He suggested four purpose categories: reference (scientific, exploratory and

informative); persuasive (prompting physical, intellectual or emotional action); expressive (expressing personality or point of view); and literary (creating language of aesthetic value).

Kinneavy further suggests that each of the four purposes differs in both style of writing and in pattern of organization. Lloyd-Jones (1977) supports this hypothesis and also suggests that individual differences account for varying degrees of skill in particular discourse modes. He states that, "the writer of a good technical report may not be able to produce an excellent persuasive letter to a city council" (p.37).

Because the current study demanded samples of writing from two grade levels (8 and 12), and from students with varying skills, Kinneavy's "expressive" purpose was chosen. Fictional narration is appropriate since it is within the ability levels of both grades and can provide quantities of writing that are statistically significant.

Gibson (1969) and Moffett (1968) assume a different concept of written discourse. They believe that the distance between speaker and audience is critical for all discourse types.

Gibson proposes a speaker-audience continuum, ranging from intimate to formal. This implies that a metaphorical space "helps account for the relative intimacy or formality of a speaker-audience relationship" (p.53).

Moffett, in Cooper and O'dell (1978), extends Gibson's theory into another speaker-audience continuum:

That begins with interior monologue, in which the speaker and audience are identical, and moves to dialogue, in which speaker and audience are separate but still close in time and space. At subsequent points on Moffett's continuum, speaker and audience are more and more remote; one speaks or writes for an increasingly large audience; one that is not present and cannot provide any immediate response to one's message. (p.4)

Moffett then parallels this speaker-audience continuum with human intellectual development. He suggests that humans develop from egocentric functioning, wherein the speaker deals with a very immediate audience such as himself or an immediate friend, to decentric functioning, wherein he can deal with more remote audiences that are not part of immediate experiences.

Britton (1971) suggests yet another speaker-audience

continuum, consisting of the stages of record, report, narrative or descriptive, analogic (at both low and high levels of generalization), and tautologic. Once again, the speaker-audience space increases with each stage.

To summarize these three written discourse theories, it is evident that the younger writer is able to deal with immediate audiences, and, with time, becomes more capable of appealing to audiences more temporally and spatially remote. Hence the choice of fictional narration as an appropriate mode of discourse for this study is justified. In writing fiction, the subjects are operating somewhere in the middle of the egocentric-decentric continuum. They are neither appealing to an immediate audience nor are they speculating or arguing to a distant audience.

Psycholinguists have added new dimensions to language study. For example, Hirsch (1977) contrasts oral language with written discourse. He states, "Written discourse has to make up for its lack of intonation, gesture and facial expression - most of all, for its lack of tacit situational understanding and active feedback between speaker and listener" (p.22).

The theories of Hirsch require further comment, as they relate directly to the question of verb usage and

transmission of meaning. Hirsch proposes holistic study of discourse, since isolated sentences possess a degree of semantic uncertainty. He further suggests that psychological principles govern the communicative efficiency of prose. The logic of thought is distinct from the logic of writing and "the clarity of a piece of writing is not the same as the clarity of its thought" (p.88).

In addition, Hirsch emphasizes that the clause is the critical element in achieving semantic closure. He views the clause as the "minimal unit of semantic determinacy" (p.109), and suggests that psychologically, the human mind can only achieve semantic completeness when it has perceived how individual words and phrases have contributed to the entire clause.

Not only does Hirsch suggest semantic unity, but also he adds that clauses must be linked effectively. In order to assist short-term memory, Hirsch proposes two methods for the effective linking of clauses: thematic tags and proleptic devices.

In Hirsch's view, the thematic tag is "the visible part of the iceberg.... the explicit verbal representation of many implicit meanings" (p.124). An expression such as short-term memory contains within it many such implicit

meanings. From a psychological standpoint, "Representation by thematic tags is absolutely essential to language use because of our limited capacity for paying attention to several explicit meanings all at once" (p.125).

The second method for linking clauses is the use of proleptic devices. Words such as nevertheless, therefore, thus and similarly, otherwise known as transition devices, serve "prospectively for the clause being processed and also retrospectively for the clauses already stored" (p.128).

The current study proposes to determine the effect of verb usage on the transmission of meaning. The verb, which is the major component of any clause, whether dependent or independent, contributes action or transition within the clause and consequently plays a major role in semantic closure.

#### Summary of the Theoretical Framework

The preceding discussion of verb theory, semantic theory and written discourse theory has laid the groundwork for the development and validation of instrumentation as well as the proposal of a verb theory for secondary level instruction.

The verb theorists emphasize the vital impact of the verb on our language and suggest developmental patterns in verb usage. Verb theory, along with semantic theory, support objective and subjective instrumentation designed to measure verb usage in students' written language. Written discourse theory stresses the importance of the verb in written discourse and also supports the study of fictional narration. In addition, semantic theory proposes certain developmental verb usage patterns and suggests that there may be verb usage patterns between grade and ability levels.

#### Empirical and Methodological Support

Some empirical and methodological support exists for the current study. In particular, language development, modes of discourse, semantic and written discourse, and written language studies offer ideas pertinent to the development of instrumentation.

Loban (1976), concentrating primarily on oral use, concluded that variances exist between high and low language ability groups in their use of non-finite verbs. He states that such verbs are "a way of simplifying, and they are forceful; they help us to express and to subordinate thought effectively and directly" (p.69).

The current study's instrumentation distinguishes finite and non-finite verbs by tabulating both verb form and verb function, and makes conclusions concerning verb usage variances between ability levels. Loban's use of the type-token ratio to determine verb variability is also an integral part of the current study.

Loban extended his research by suggesting that both syntactic and semantic features of verbs would be worthy issues for study. Besides verb frequency and non-finite verbs, he states that, "Perhaps the use of exact and vivid verbs, such as strolled across the street instead of went across the street, may be one such area of study" (p.69).

Prater and Padia (1983) studied modes of discourse on the written results of elementary students. In the belief that purpose and audience have an overall effect on writing quality, they discovered varying degrees of performance in expressive, explanatory, and persuasive writing modes. Expressive, due to its more ego-centric nature, produced the most effective writing of the three.

Again, justification is provided for this study's use of fictional narration as an appropriate writing mode, since it is obviously a manageable task for students.

Perl, as reported in Zamel (1982), found significant improvement in writing when students composed on topics of more personal interest.

Paivio (1971) stressed the importance of existing knowledge upon the quality of writing. His dual coding system of nonverbal imagery and verbal processes provides empirical support:

It specifies a distinct functional role for nonverbal imagery in the understanding and production of language. This feature of the approach is most directly relevant to the problem of "knowledge of the world" in that such knowledge is assumed to be coded partly in the form of representational images of objects and events, and the mediational effects of these images are considered as being analogous to the effects of concrete settings themselves. (p.434)

Paivio demonstrated that, developmentally, imagery precedes verbal processes. Eventually, however, the two develop both concurrently and interactively. As humans mature, they become more capable of dealing with the more temporally and spatially remote. Obviously then, the older, more skilled students will produce more effective narration than will the less skilled, younger students.

Gentner (in Norman et al., 1975), in a similar manner to the current study, researched the processing and storage of verbs. She investigated how verbs expand into contextual semantic components, by concentrating upon the development of the basic sense and related metaphorical extensions of possession verbs. With certain modifications, this procedure forms an integral role in the present study.

Gentner also provided some evidence for the study of ellipses and errors between subjects of differing ages. Speaking in terms of semantic chunks, she maintained that, "Because a child's representation of a verb depends upon just how many of the underlying components have been acquired, a child's mistakes in interpreting complex verbs should in general reflect omission of the chunks not yet acquired" (p.234).

Chinn (1979) conducted two studies correlating verb choice and the quality of students' writing. After designing a verb-oriented curriculum, she used a pretest-posttest procedure to determine the overall quality of Grade 5 writing, by employing an holistic marking scale. In this first study, she concluded that "verb vocabulary can be improved by means of a verb-oriented composition course, and.... such emphasis improves specific areas related to syntax and to the general impact made by the composition as

judged by holistic evaluators" (p.12).

The second of Chinn's studies again used holistic evaluation to measure specific features of composition in extant written samples of senior high school students. She concluded that, "positive correlations exist between a composition's holistic score and 1. its length and 2. the quality of its verb choice" (p.15).

Both methodological and empirical support for the current study are provided by Chinn's research. The use of holistic evaluation and of extant written samples are both procedures used here. Similarly, the current study hypothesizes that verb usage may have an effect upon the overall quality of a written composition.

### Summary of Chapter II

Chapter II has drawn together theories from different fields, including verb, semantic, and written discourse theory. It has also outlined some empirical and methodological support, concentrating upon language development, modes of discourse, semantic, and written language studies. Therefore, the background for the study's design, which follows in Chapter III, has been established.

## CHAPTER III

### THE DESIGN OF THE STUDY

In Chapter I, the researcher outlined an introductory framework for the current study and stated the research questions. Chapter II provided a review of relevant literature and methodological support for the design of the study. Chapter III presents an explanation of specific features of the research design.

#### Subjects and Participants

The subjects for this study were selected from Grade 8 and Grade 12 in the Cowichan School District (#65) in Duncan, British Columbia, Canada and in the Lake Cowichan School District (#66) in Lake Cowichan, British Columbia, Canada. These grades were chosen because they coincided with the British Columbia Ministry of Education's recent assessment program for students' written language. The assessment program specifically isolated Grades 8 and 12 as culminating points of the intermediate and senior levels, respectively. The researcher also judged the grade selection to be appropriate since students in Grade 8 and Grade 12 were capable of generating sufficient written

material. The Cowichan and Lake Cowichan School Districts were chosen because the researcher had lived and taught in the area for several years prior to the study.

As of June, 1983, the Cowichan School District registered 650 Grade 8 students in 4 schools, and 479 Grade 12 students in 2 schools. The Lake Cowichan School District registered 97 Grade 8 students in one school and 56 Grade 12 students in one school. Due to the focus of the study, the nature of individual classrooms was not considered significant to the results. Specifically, the researcher collected samples of students' writing from a natural classroom situation; that is, no experimental controls were applied. Likewise, no data pertaining to the students' I.Q. levels or their socio-economic status were recorded.

In the Spring of 1983, the researcher sent letters (see Appendix A) to all Grade 8 and 12 teachers in the two school districts requesting samples of students' writing, and stating procedures and guidelines for this collection. Thus, participation in the study was on a voluntary basis.

The Superintendent of the Cowichan School District approved the researcher's study on May 17, 1983 by letter. The Superintendent and the School Board of the Lake Cowichan School District gave approval for the study at a regular

board meeting on May 9, 1983.

### The Task

The task of the current study is the development and validation of instrumentation and the formulation of a verb theory applicable to written language instruction. Thus, the task reflects the exploratory nature of the research and the non-experimental approach of the design.

Originally, the researcher requested written samples from five distinct modes of discourse: description, factual narration, fictional narration, exposition, and argument (see Appendix A). This request produced a satisfactory response from cooperating classroom teachers. However, during the compilation of samples, it became apparent that the vast majority of the student writing was fictional narration. The fictional narrative mode of discourse is defined as the creation of a composition from real or imagined sequences of events, in which the writer uses interpretive and/or imaginative thought to entertain the audience. Thus, the researcher decided to restrict the analysis of data to verb usage as it occurred in the fictional narrative mode.

The teachers of Grades 8 and 12 in the Cowichan and

Lake Cowichan School Districts collected samples of students' writing in the fictional narrative mode. They were directed to adhere to specific guidelines:

1. Samples were a minimum of 300 words in length, with no maximum length stated.

2. Assignments were labelled as written by Grade 8 and 12 students. Similarly, each composition was designated as female or male authorship. However, the gender categorization was eventually deemed irrelevant to the research purposes, and consequently eliminated.

3. Each composition was classified by the teacher as written by a high, average, or low ability student in written language achievement.

4. Compositions were written during the period January to September, 1983.

From the collected samples, the researcher selected narratives created by the high and low achievers in written language. These samples were used to verify the effectiveness of instrumentation developed by the researcher.

### Instrumentation

#### Description of Instrumentation Procedures

The primary focus of this study was the development of

instrumentation to measure verb usage in students' written language. The instrumentation employed five techniques:

1. Verb frequency. The frequency of verbs in a written passage was measured by a form of the type-token ratio, a measure of the variability of language. The first ten verbs, the middle ten verbs, and the last ten verbs in each composition were listed. In each sample of writing, the total number of different verb phrases (the types) were divided by thirty (the tokens). A verb frequency data analysis form is outlined in Table 1. Means were then calculated for high and low achievers in written language for both Grades 8 and 12.

2. Verb maturity. The maturity of verbs used in a written passage was calculated from The Living Word Vocabulary (Dale and O'Rourke, 1976). A grade level index was recorded for the individual verb within the context of each written sample. Each component of a compound verb phrase was treated individually. Table 2 illustrates the procedures for determining verb maturity. Means were then calculated for high and low achievers in written language for both Grades 8 and 12.

3. Verb form and verb function. The contextual classification of verb form and verb function was described



TABLE 2

Verb Maturity Data Analysis Form

Student Number: \_\_\_\_\_

Total Verbs: \_\_\_\_\_  
(per 300 words)

Grade Level Index	Number of Verbs	Ratio
4		
6		
8		
10		
12		
13		
16		

by the form and function table. Individual verbs and verb phrases in each written sample were recorded in the appropriate cells of the table. Ratios were computed for each cell, and for each major category (for example, finite verbs). The data analysis form for verb form and verb function follows in Table 3. Means were then calculated for high and low achievers in written language for both Grades 8 and 12.

4. Verb intensity. The intensity of verbs used in a written passage was indicated by the verb's basic meaning, or its extended meanings. The basic meaning of a verb was its most common definition, according to The Living Word Vocabulary (Dale & O'Rourke, 1976). Extended meanings referred to other meanings less commonly associated with the verb. Verbs were identified contextually as either basic meaning ("B") or extended meaning ("E"). Verbs were then listed according to their particular function category; that is, activity, process, bodily sensation, transitional event, momentary, inert perception and cognition, or relational. The method for recording verb intensity is outlined in Table 4. The ratio of basic meanings to the total number of verbs and the ratio of extended meanings to the total number of verbs were compared. Means were then calculated for high and low achievers in written language for both Grades 8 and 12.

TABLE 3

Verb Form and Verb Function Table

Student Number: \_\_\_\_\_  
 Total Verbs: \_\_\_\_\_  
 (per 300 words)

Form	Function Dynamic Verbs					Stative Verbs	
	Activity	Process	Bodily Sensation	Transitional Event	Momentary	Inert Perception & Cognition	Relational
Finite Verbs							
Non-finite Verbs							
Ellipses							
Errors							

Adapted from Quirk et al, 1972, p.95

TABLE 4

Verb Intensity Data Analysis Form

B - Basic Meaning  
E - Extended Meaning

Student Number: \_\_\_\_\_  
Total Verbs: \_\_\_\_\_

Dynamic Verbs					Stative Verbs	
Activity	Process	Bodily Sensation	Transition- al Event	Momentary	Inert Perception	Relational

	Total	Ratio
Basic Meaning		
Extended Meaning		

5. Quality of writing. The quality of the written samples was measured by an holistic rating scale (see Appendix D). Trained judges assessed each composition, a mean quality score was calculated for each composition, then grand means were determined for high and low achievers in written language for both Grades 8 and 12.

#### Development of Objective Instrumentation

A critical facet of the study was the development of objective instrumentation in order to measure the quality of meaning conveyed in students' narrative prose.

Specifically, the researcher devised an instrument to measure verb usage in terms of verb form and verb function. The verb classifications of Joos (1964), Palmer (1974), and Quirk et al. (1972) were modified to accomplish this task.

Initially, verb form was divided into finite and non-finite, with further subdivisions:

1. Finite verb forms.

- simple
- complex (modal/periphrastic, perfective, progressive, passive)
- combinations of complex

2. Non-finite verb forms.

- simple (simple infinitive, simple participle)

- complex (complex infinitive, complex participle)
- combinations of complex

The initial verb form and verb function chart is summarized in Table 5.

It became evident that such a detailed listing of verb forms was unwieldy and essentially unnecessary for the purposes of the study. Thus, the form section of the table was condensed into the general subdivisions of finite and non-finite verbs. In addition, two form categories were added to record verb usage errors, the syntactically incorrect uses of the verb; and ellipses, the verbs intentionally omitted by the writer (see Table 3).

To record the functional aspects of verbs, the researcher employed the classification outlined by Quirk et al. (1972). This involved the separation of verb function into two distinct categories, each with its own sub-categories: dynamic (activity, process, bodily sensation, transitional event, and momentary) and stative (inert perception and cognition, and relational).

#### Development of Subjective Instrumentation

A further objective of this study was the development of instrumentation sensitive to the intensity of meaning

TABLE 5  
Initial Verb Form and Verb Function  
Interactive Chart

		DYNAMIC VERBS					STATIC VERBS	
		Activity	Process	Bodily Sensation	Transition- al Event	Momentary	Inert Perception & Cognition	Relational
1.	<u>Finite</u>							
1.1	Simple							
1.2	Complex							
	1.2.1 (modal/periphrastic)							
	1.2.2 (perfective)							
	1.2.3 (progressive)							
	1.2.4 (passive)							
1.3	Combinations							
2.	<u>Non-Finite</u>							
2.1	Simple							
	2.1.1 (simple/infinitive)							
	2.1.1 (simple/participle)							
2.2	Complex							
	2.2.1 (complex/infinitive)							
	2.2.2 (complex/participle)							
2.3	Combinations							
	examples	ask, beg, call, drink, eat	mature, change, grow	ache, feel, hurt, itch	arrive, die, fall, land, lose	hit, jump, kick, knock, tap	abhor, believe, feel know, love,	be, belong to, fit, cost need, owe

inherent in verbs. The subjective nature of this task led to some uncertainty as to how to analyze the psychological processes involved when a writer attempts to convey meaning.

Initially, three methods were postulated as solutions to this methodological problem: a semantic differential, a word association test, and a devised scale that would list the connotative meanings attached to specific verbs. These methods were discarded because they either were unmanageable in terms of time and personnel or would not be semantically accurate enough for the purposes of the study.

Gentner (in Norman et al., 1975) provided a clue to a more precise measurement of meaning. In discussing verbs of possession, Gentner suggested that they have a core or basic sense, as well as metaphorical extensions. For the purposes of this study, the concept "basic sense" was defined as the most common lexical use of each verb, while extended meanings referred to other meanings less commonly associated with the verb.

The researcher hypothesized that the use of extended meanings indicated a higher level of verbal processing within writers. Thus, the less skilled writer tended to utilize the basic sense of the verb, while the more skilled writer had a greater facility with extended meanings.

The researcher devised a plan which recorded how writers used verbs. This plan identified the verbs in a students' composition as being used in their "basic sense" (the basic meaning) or their "extended sense" (the extended meanings). Verb functions were also associated with each listed verb. By relating holistic evaluation with the subjective analysis of basic verbs and their extended meanings, the researcher determined how effectively meaning was conveyed through verb usage in students' written language.

#### Validation Process

In addition to the development of objective and subjective instrumentation, the researcher validated its appropriateness for general use. Specifically, the form and function table required validation. This process involved determining the criteria for the selection of validators, choosing validation materials, and outlining instructions for validators. A detailed description of the validation process is included in Appendix B.

#### Pilot Study

Following the validation of instrumentation, the researcher conducted a pilot study to examine the written

language of students and of recognized competent writers. Verb frequency, verb maturity, verb form, verb function, and verb intensity were analyzed in order to determine their applicability to the goals of the research. A detailed description of the pilot study appears in Appendix C.

The results of the pilot study prompted the researcher to make the following methodological changes:

1. Verb frequency. The number of verbs was controlled by selecting the first ten verbs, the middle ten verbs, and the final ten verbs in the initial three hundred words of each composition, thus standardizing the type-token ratio.

2. Verb maturity. The percentage indices derived from The Living Word Vocabulary (Dale and O'Rourke, 1976) were omitted. Verb maturity was then analyzed by the grade level indices.

3. Verb form and verb function. On the form and function table, missed verbs became "errors", and an additional form category was added - "ellipses".

4. Verb intensity. The terms "core meanings" and "metaphorical extensions" were eliminated, the former being replaced with the term "basic" meanings, the latter being replaced with the term "extended" meanings.

### Analysis of Data

The data analysis for the present study reflected its exploratory nature, in which instrumentation was developed and a verb theory applicable to the teaching of written language was proposed. The researcher recorded statistics descriptive of verb usage in students' written language. By first classifying and summarizing observable phenomena, the researcher was able to relate writing quality (as measured by an holistic rating scale) and the five components of verb usage; that is, verb frequency, verb maturity, verb form, verb function, and verb intensity.

From the corpus of students' written compositions collected, the researcher selected 80 samples, 40 from Grade 8 and 40 from Grade 12. Each group of 40 compositions consisted of 20 samples written by high language achievers and 20 written by low language achievers (as identified by the classroom teachers), thus establishing four distinct groups: 20 high language-achieving Grade 8's, 20 low language-achieving Grade 8's, 20 high language-achieving Grade 12's, and 20 low language-achieving Grade 12's. To standardize the length of the samples analyzed, the researcher used only the first 300 words from each composition. Statistically, this procedure produced sufficient numbers of distinct verbs.

Individual compositions were then analyzed by six measures of instrumentation: verb frequency, verb maturity, verb form, verb function, verb intensity, and an overall quality rating for the composition. Specifically, the analysis of each composition entailed the following steps:

1. The first 300 words were counted.

2. Each verb was underlined. In the case of verb phrases, both the root verb and its auxiliary (auxiliaries) were underlined separately.

3. The first ten verbs, the middle ten verbs and the last ten verbs were listed on a data analysis form (see Table 1). From this total of 30 verbs, a type-token ratio was calculated, thus providing a measure of verb frequency.

4. To determine verb maturity, the total number of verbs per 300 words was recorded. For verb phrases, the root verb and its auxiliary (auxiliaries) were treated as separate verbs. The grade level indices, as determined from The Living Word Vocabulary (Dale and O'Rourke, 1976), were recorded above each verb within the body of the composition. The total number of verbs identified by each grade level index was summed. This total, divided by the grand total gave a ratio of verb maturity at both grade levels (see Table 2).

5. The analysis of verb form and verb function commenced by locating verbs and verb phrases within a specific cell on the form and function table (see Table 3).

This was followed by listing each verb or verb phrase under the appropriate function (activity, process, bodily sensation, transitional event, momentary, inert perception and cognition, or relational) on the verb intensity data analysis form (see Table 4), thus forming the basis for subsequent analysis (and providing the total number of verbs). The individual tallies on the verb form and verb function table were then divided by the total number of verbs, establishing a ratio for each cell. By totaling the ratios in each column and row, the ratios for finite verbs, non-finite verbs, and each of the function categories were determined. Finally, the ratios for dynamic verbs and stative verbs were calculated.

6. Verb intensity analysis involved the identification of basic meanings or extended meanings on the verb intensity data analysis form (see Table 4), with reference to the verbs' contextual uses. The Living Word Vocabulary (Dale and O'Rourke, 1976) was used as a guide to determine the sense of each verb; that is, the basic meaning or extended meaning. The totals of basic and extended verbs were transformed into ratios.

7. An overall quality rating was ascertained by a panel of judges employing an holistic rating device. The average quality rating was recorded (see Table D-2). The SPSS-X programme from the University of Victoria's Faculty of Education generated inter-rater reliability correlations

with the following results: Judge 1 and Judge 2 (0.7291); Judge 1 and Judge 3 (0.6739); Judge 2 and Judge 3 (0.7020). These coefficients indicate a moderate to high agreement among judges.

### Statistical Analysis

The data from the analysis sheets was coded, transferred to General Purpose - NCS - Answer Sheets, and keypunched to the SPSS-X program.

A multivariate analysis of variance was used to determine F-ratios and levels of significance for each of the dependent variables; that is, verb frequency, verb maturity, verb form (finite, non-finite, errors), verb function (dynamic, stative), and verb intensity (basic, extended), with grade and ability as the three independent variables. Furthermore, Scheffe's test was employed to determine levels of significance between cells.

A stepwise multiple linear regression analysis was conducted using writing quality as the criterion, and verb frequency, verb maturity, verb form (finite, non-finite, errors), verb function (dynamic, stative) and verb intensity (basic, extended) as the predictor variables. The analysis involved the isolation of both grades.

For all statistical tests, the level of significance accepted was  $p < .05$ . Chapter IV details the results of these analyses.

### Summary

Chapter III has offered a summary of the study's design. It included a description of the subjects and participants, an outline of the task, the instrumentation procedures, the development of objective and subjective instruments, a brief introduction to both the validation process and the pilot study, the analytical treatment of individual samples, and the nature of statistical analyses. This chapter prepares the reader for the results that will be presented in Chapter IV.

## CHAPTER IV

### ANALYSIS OF THE DATA

Chapter III has outlined the research design of this study. Chapter IV includes the data analysis and the findings in response to Chapter I's research questions.

#### Statistical Analysis of Data

Means, standard deviations, multivariate analyses of variance, Scheffe tests and stepwise multiple linear regressions were generated by the University of Victoria, Faculty of Education's SPSS-X program. The  $p < .05$  level of significance was accepted for all statistical tests.

#### Findings

##### Question 1.

Can existing verb, semantic and written discourse theory be used to develop instrumentation that will measure verb usage in students' written language?

Because certain results of significance follow, it is evident that such instrumentation can be developed. Instrumentation for verb form and function is derived from verb theory, whereas instrumentation for verb maturity and intensity is derived from semantic theory. Despite the fact that written discourse theory did not contribute to the development of instrumentation, it did support the study of the verb as used in fictional narration.

### Question 2.

Do relationships exist between verb frequency, verb maturity, verb form (finite/non-finite/errors), verb function (dynamic/stative), and verb intensity (basic/extended), and

- 2.1 Grade 8 and 12 level students,
- 2.2 low and high ability language students,
- 2.3 the written language quality, as determined by holistic rating?

The results of Question 2 appear as a unit, by statistical test. Discussion of the significant dependent variables provides a response to Question 2.

MANOVA

As indicated in the ABSTRACT, the data collected for this study was done on a collaborative basis. Hence, the data presented on tables includes Grades 4, 8, and 12. However, data interpretation will be restricted to only Grades 8 and 12. Scheffe tests isolate significant mean differences at Grades 8 and 12 for the dependent variables of verb frequency, verb form (non-finite) and verb intensity (extended).

Table 6 provides a MANOVA for the independent variables of grade and ability and the dependent variables of verb frequency. It also presents cell means, standard deviations, and a Scheffe multiple comparison of means.

Table 7 provides a MANOVA for the independent variables of grade and ability and the dependent variables of verb form (non-finite). It also presents cell means, standard deviations, and a Scheffe multiple comparison of means.

Table 8 provides a MANOVA for the independent variables of grade and ability and the dependent variable of verb form (errors). It also presents cell means and standard deviations.

TABLE 6

## MANOVA: Mean Verb Frequency in Written Language

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Cell Means and Standard Deviations				
<u>Grade</u>	<u>Ability</u>	<u>N</u>	<u>X</u>	<u>S.D.</u>
4	Low	20	.79	.11
	High	20	.84	.04
8	Low	20	.76	.09
	High	20	.89	.07
12	Low	20	.82	.07
	High	20	.90	.06

## Summary of MANOVA: Verb Frequency

<u>Source of Variation</u>	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>P</u>
Grade	.68	114	.01	3.25	.042
Ability	.68	114	.01	37.26	.000

## Probability Matrix for Scheffe Multiple Comparison of Means

	Grade 4 Low	Grade 4 High	Grade 8 Low	Grade 8 High	Grade 12 Low	Grade 12 High
Grade 4/Low						
Grade 4/High	0.7091					
Grade 8/Low	0.8079	0.0729				
Grade 8/High	0.0109	0.4162	0.0001			
Grade 12/Low	0.9761	0.9844	0.3331	0.1041		
Grade 12/High	0.0052	0.2949	0.0000	1.0000	0.0604	

TABLE 7

MANOVA: Mean Verb Form (Non-finite)  
in Written Language

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Cell Means and Standard Deviations

<u>Grade</u>	<u>Ability</u>	<u>N</u>	<u>X</u>	<u>S.D.</u>
4	Low	16	.15	.07
	High	20	.14	.05
8	Low	19	.13	.06
	High	20	.21	.07
12	Low	20	.22	.07
	High	20	.28	.07

Summary of MANOVA: Verb Form (Non-finite)

<u>Source of Variation</u>	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>P</u>
Grade	.23	2	.11	25.58	.001
Ability	.06	1	.06	12.33	.001

Scheffe Test

	Grade 4	Grade 8	Grade 12
Grade 4			
Grade 8	0.5796		
Grade 12	0.0002	0.0058	

Probability Matrix for Scheffe Multiple  
Comparison of Means

	Grade 4 Low	Grade 4 High	Grade 8 Low	Grade 8 High	Grade 12 Low	Grade 12 High
Grade 4/Low						
Grade 4/High	1.0000					
Grade 8/Low	0.9986	0.9999				
Grade 8/High	0.9198	0.8027	0.6798			
Grade 12/Low	0.8474	0.6897	0.5540	1.0000		
Grade 12/High	0.3150	0.1607	0.1012	0.8809	0.9441	

TABLE 8

MANOVA: Mean Verb Form (Errors)  
in Written Language

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Cell Means and Standard Deviations

<u>Grade</u>	<u>Ability</u>	<u>N</u>	<u>X</u>	<u>S.D.</u>
4	Low	10	.10	.12
	High	11	.04	.02
8	Low	12	.05	.04
	High	11	.03	.02
12	Low	15	.06	.03
	High	7	.03	.02

Summary of MANOVA: Verb Form (Errors)

<u>Source of Variation</u>	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>P</u>
Grade	.01	2	.01	1.19	.312
Ability	.02	1	.02	6.51	.02

Table 9 provides a MANOVA for the independent variables of grade and ability and the dependent variable of verb intensity (extended). It also presents cell means, standard deviations, and a Scheffe multiple comparison of means.

### Stepwise Multiple Linear Regression

By means of stepwise multiple linear regression analyses, the significant predictors of writing quality according to verb usage were determined. The analyses are organized by grade.

#### 1. Grade 8

Table 10 provides means, standard deviations, a correlation matrix for all of the dependent variables and quality combined for the three judges, and a stepwise multiple linear regression for the dependent variables of verb frequency.

#### 2. Grade 12

Table 11 provides means, standard deviations, a correlation matrix for all of the dependent variables and quality combined for the three judges, and a stepwise multiple linear regression for the dependent variables of

TABLE 9

MANOVA: Mean Verb Intensity (Extended)  
in Written Language

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Cell Means and Standard Deviations

<u>Grade</u>	<u>Ability</u>	<u>N</u>	<u>X</u>	<u>S.D.</u>
4	Low	16	.13	.08
	High	20	.15	.07
8	Low	20	.15	.08
	High	20	.16	.05
12	Low	20	.22	.09
	High	20	.20	.08

Summary of MANOVA: Verb Intensity (Extended)

<u>Source of Variation</u>	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>P</u>
Grade	.11	2	.06	9.99	.000
Ability	.01	1	.01	.34	.561

Scheffe Test

	Grade 4	Grade 8	Grade 12
Grade 4			
Grade 8	0.9476		
Grade 12	0.4153	0.5897	

TABLE 10

Stepwise Multiple Linear Regression: Grade 8  
Written Language

=====

Cell Means and Standard Deviations

<u>Variable</u>	<u>N</u>	<u>X</u>	<u>S.D.</u>
Verb Frequency	40	.83	.11
Verb Maturity	40	.91	.05
Verb Intensity (Basic)	40	.85	.07
Verb Intensity (Extended)	40	.16	.07
Verb Form (Finite)	40	.81	.08
Verb Form (Non-finite)	39	.17	.08
Verb Form (Errors)	23	.04	.03
Verb Function (Dynamic)	40	.69	.10
Verb Function (Stative)	40	.31	.10
Quality Combined	40	16.75	5.76

Correlation Matrix

	V01	V02	V03	V04	V05	V06	V07	V08	V09	JTOT
V01 Verb Frequency										
V02 Verb Maturity	.014									
V03 Verb Intensity (Basic)	-.319	.390								
V04 Verb Intensity (Extended)	.319	-.390	-1.000							
V05 Verb Form (Finite)	-.518	.151	.133	-.133						
V06 Verb Form (Non-finite)	.460	-.104	-.067	.067	-.917					
V07 Verb Form (Errors)	-.100	-.012	.117	-.117	-.127	-.379				
V08 Verb Function (Dynamic)	.194	-.073	-.045	-.045	-.010	.011	.152			
V09 Verb Function (Stative)	-.194	.073	.045	.045	.010	-.011	-.152	-1.000		
JTOT Quality Combined	.506	-.071	-.171	-.171	-.336	.370	-.379	-.138	.138	

Stepwise Multiple Linear Regression

<u>Variable</u>	<u>R<sup>2</sup></u>	<u>BETA</u>	<u>T-Value</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>P</u>
Verb Frequency	.26	.51	3.61	38	25.34	13.05	.0009

TABLE 11

Stepwise Multiple Linear Regression: Grade 12  
Written Language

Cell Means and Standard Deviations

<u>Variable</u>	<u>N</u>	<u>X</u>	<u>S.D.</u>
Verb Frequency	40	.86	.08
Verb Maturity	40	.86	.08
Verb Intensity (Basic)	40	.79	.08
Verb Intensity (Extended)	40	.21	.08
Verb Form (Finite)	40	.72	.07
Verb Form (Non-finite)	40	.25	.08
Verb Form (Errors)	22	.05	.03
Verb Function (Dynamic)	40	.65	.11
Verb Function (Stative)	40	.35	.11
Quality Combined	40	15.10	5.73

Correlation Matrix

	V01	V02	V03	V04	V05	V06	V07	V08	V09	JTOT
V01 Verb Frequency										
V02 Verb Maturity	-.387									
V03 Verb Intensity (Basic)	.197	.229								
V04 Verb Intensity (Extended)	-.197	-.229	-1.000							
V05 Verb Form (Finite)	-.321	.292	.195	-.195						
V06 Verb Form (Non-finite)	.469	-.378	-.115	.115	-.900					
V07 Verb Form (Errors)	-.158	.126	-.214	.214	-.264	-.114				
V08 Verb Function (Dynamic)	.248	-.098	.037	-.037	-.201	.142	.305			
V09 Verb Function (Stative)	-.248	.098	-.037	.037	.201	-.142	-.305	-1.000		
JTOT Quality Combined	.599	-.468	-.094	.094	-.321	.475	-.080	.054	-.054	

Stepwise Multiple Linear Regression

<u>Variable</u>	<u>R<sup>2</sup></u>	<u>BETA</u>	<u>T-Value</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>P</u>
Verb Frequency	.36	.60	4.61	38	21.61	21.22	.0001
Verb Maturity	.22	-.47	-3.27	38	26.29	10.67	.0023
Verb Form (Non-finite)	.23	.48	2.41	20	26.67	5.83	.0254

verb frequency, verb maturity, and verb form (non-finite).

Question 2 investigates the relationships between the dependent variables of verb frequency, verb maturity, verb form, verb function, and verb intensity and the independent variables of grade and ability, and quality. The responses to questions are organized according to significant dependent variables.

### Verb Frequency

The MANOVA in Table 6 indicates significant differences in the mean number of verbs between grades ( $p < .042$ ), and between ability levels ( $p < .000$ ). The Scheffe test indicates significant differences between Grade 8, low ability, and Grade 8, high ability ( $p < .0001$ ) and Grade 8, low ability and Grade 12, high ability ( $p < .0604$ ). It is important to mention that no significant differences in mean verb frequency occurred between Grade 8, low ability, and Grade 12, low ability.

The stepwise multiple linear regression in Table 10 indicates verb frequency as a significant predictor of writing quality at the Grade 8 level ( $p < .0009$ ). Verb frequency, from Table 11, is also a significant predictor of writing quality at the Grade 12 level ( $p < .0001$ ).

### Verb Maturity

The stepwise multiple linear regression in Table 11 indicates verb maturity as a significant predictor of writing quality at the Grade 12 level ( $p < .0023$ ).

### Verb Form

The MANOVA in Table 7 indicates significant differences in mean verb form (non-finite) between grades ( $p < .001$ ) and between ability levels ( $p < .001$ ). However, the Scheffe tests do not indicate the significant differences.

The stepwise multiple linear regression in Table 11 indicates verb form (non-finite) as a significant predictor of writing quality at the Grade 12 level ( $p < .0254$ ).

The MANOVA in Table 8 indicates significant differences in mean verb form (errors) between ability levels ( $p < .02$ ). However, there were no Scheffe test results to support this difference.

### Verb Intensity

The MANOVA in Table 9 indicates significant differences in mean verb intensity (extended) between grades ( $p < .000$ ).

The Scheffe test, however, did not indicate the differences.

### Question 3.

Is it possible to combine existing verb, semantic and written discourse theory into a verb usage theory applicable to written language instruction at the secondary level?

The answer to this question, since it combines varied fields of study with the results of the current study, will be presented in the "Implications for Instruction" in Chapter V.

### Summary of Findings

Chapter IV has presented the MANOVA results for the dependent and independent variables. It has also reported the significant predictors of writing quality according to verb usage. A Summary of these findings follows:

#### Verb Frequency

1. Between Grades 8 and 12, a significant difference occurs in the mean number of verbs used in written language.
2. Between low and high ability students in Grade 8

and in Grade 12, a significant difference occurs in the mean number of verbs used in written language.

3. Verb frequency is a significant predictor of writing quality at the Grade 8 level.

4. Verb frequency is a significant predictor of writing quality at the Grade 12 level.

### Verb Maturity

1. Verb maturity is a significant predictor of writing quality at the Grade 12 level. However, verb maturity was not a significant predictor of quality at the Grade 8 level.

### Verb Form

1. Between Grades 8 and 12, a significant difference occurs in mean verb form (non-finite) used in written language.

2. Between low and high ability students in Grade 8 and in Grade 12, a significant difference occurs in the use of mean verb form (non-finite).

3. Verb form (non-finite) is a significant predictor of writing quality at the Grade 12 level.

4. Between low and high ability students in Grade 8 and in Grade 12, a significant difference appears in the occurrence of verb form (errors).

### Verb Intensity

1. Between Grades 8 and 12, a significant difference occurs in mean verb intensity (extended) used in written language.

The following dependent variables yielded no significant results at both Grade 8 and Grade 12:

1. Verb Form (finite)
2. Verb Function (dynamic)
3. Verb Function (stative)
4. Verb Intensity (basic).

## CHAPTER V

### DISCUSSION, CONCLUSIONS, AND IMPLICATIONS

Chapter V presents a discussion of the effectiveness of this study's instrumentation in relation to the theoretical framework outlined in Chapter II. It also discusses the findings of the significant dependent variables in relation to the results of extant research. The chapter closes with conclusions and implications for further research and instruction.

#### Discussion

##### Instrumentation

The development of an instrument that measured verb form (finite, non-finite, errors) and verb function (stative, dynamic) was central in this study. The instrument yielded significant results in verb form (non-finite, errors) in particular.

There were significant differences in mean verb form (non-finite) between grades (8 and 12) and between ability levels (low and high). Verb form (non-finite) also proved

to be a significant predictor of writing quality at the Grade 12 level.

Verb form (errors) resulted in significant differences between ability levels.

Several verb theorists provided support for the formulation of the instrument which measured verb form and verb function. Joos (1964), in the belief that the English verb system could be reduced to a finite list of parts and relations, divided verbs into the categories of finite and non-finite, each with its own subdivisions.

Palmer (1974) extended Joos' scheme by providing not only a form classification (finite, non-finite) but also a function classification, with the sub-categories of voice, progressivity, non-progressivity, tense, modal auxiliaries, marginal verbs, and compound verbs. Palmer's attempt to explain the use of the verb through this classification system provided only a clue as to an adequate functional analysis of verbs, since the categories he proposed were actually only descriptive of the verb's syntactic use, with little regard for a possible semantic component. However, Palmer and Joos' finite/non-finite categorization of verb form provided the basis for the analysis of verb form in this study.

Quirk et al. (1972) provided a more precise method of semantic analysis necessary for this study. In their attempt to emphasize the contextual analysis of verbs, Quirk et al. supported the finite/non-finite dichotomy of previous theorists, but added to this a thorough analysis of verb function. In so doing, they listed the following categories: the dynamic functions of activity, process, bodily sensation, transitional event, and momentary verbs; and the stative functions of inert perception and cognition, and relational verbs. This functional classification scheme provided for the present study a more adequate method of recording the semantic component of verb usage.

Thus, by combining extant verb theories, and gleaning from them the appropriate form and function categories, the researcher devised an instrument that recorded thoroughly verb usage in students' written language.

It was necessary in this research to extend the study of the verb beyond form and function, to include two aspects of the semantic component inherent in the verb: maturity and intensity. The resultant procedures did yield significant findings, specifically in verb maturity itself, and in verb intensity (extended).

Verb maturity proved to be a significant predictor of

written language quality at the Grade 12 level. Verb intensity (extended) demonstrated significant differences between the grade levels.

Semantic theory provided the background necessary to measure verb maturity and verb intensity. Norman et al., (1975) hypothesized a structural network in human memory, consisting of interconnected relations of meaning. Thus, as information is introduced, which occurs naturally as the writer matures, the network guides both the interpretation of information present and the initiation of new information.

Likewise, Evans (1981) proposed a multi-dimensional semantic reservoir in which words become more replete with meaning as semantic dimensions of meaning become more readily available. This again supports the notion of the importance of the maturing process in students' use of verbs. With time, and as new features such as logical and spatial relations accumulate, the writer adopts more unique methods of verb usage.

Paivio (1971) extended this concept by proposing a dual coding system, consisting of non-verbal and verbal processes, which are linked to concrete experiences and abstract language. As students mature, they are more

capable of manipulating abstract thoughts; that is, information which is both temporally and spatially remote. According to Paivio, the verb, by virtue of its abstract nature when compared to nouns, possesses a dynamic function which can provide transitions in thought because of its representation of movement and change.

From Norman, Rumelhart et al., Evans, and Paivio, the researcher devised a method to measure verb maturity. By using The Living Word Vocabulary (Dale & O'Rourke, 1976), which provided grade equivalent indices, it was possible to record how specific verbs were being employed - whether in their most common sense, or in a more sophisticated (skilled) sense.

The concept of verb intensity was also derived from semantic theory. Norman et al. (1975) provided support for using both the basic meanings and extended meanings of verbs as a way of analyzing verb intensity. In a similar manner to Evans and Paivio, Gentner (1975) proposed that verbs are stored as interrelated chunks, which consist of the basic sense of the verb as well as its metaphorical extensions. As writers mature then, new chunks are added to existing ones, and the verb gradually assumes more of the adult sense.

Additional support for the basic/extended dichotomy, as well as the influence of errors, was provided by Gentner (in Norman et al., 1975), who, by restricting the focus to possession verbs, researched the nature of their basic sense and of their metaphorical extensions.

Gentner's (1975) concept of basic and metaphorical extensions was modified to the analysis of verb intensity in the current study. This analysis was accomplished through the decomposition of the verb into basic and extended meanings. However, the limited success of this decomposition, from a theoretical point of view, was a result of the base and extended components being too complex. Hence, the correct decomposition, which depends upon the simplicity of components in relation to the total system as well as the combining of components in relatively simple ways, was not achieved.

#### Significant Dependent Variables

Variables found significant in this study are supported by empirical evidence provided in Chapter II. The fact that errors were significant dependent variables between ability levels is supported by Gentner. She found that there were developmental trends in error patterns, explainable in terms of the sequential acquisition of semantic "chunks". Verb

intensity findings in the current study were also supported by Gentner. In particular, verb intensity (extended) was a significant factor between grade levels. Gentner found that there was a developmental trend in the use of basic and metaphorical extensions.

In the current study, both non-finite verbs and verb frequency yielded significant results. Non-finite verbs demonstrated significant differences for the two independent variables of grade and ability and were also significant predictors of writing quality at the Grade 12 level. Loban (1976) found that students of high ability used more non-finite verbs than students of low ability.

Verb frequency also revealed significant differences for the two independent variables and was also found to be a significant predictor of writing quality at Grade 8 and Grade 12. Loban, employing a type-token ratio measurement, found developmental trends in the number of verbs used in students' written language.

Verb choice, which is indicated by the dependent variables of verb frequency, verb maturity, and verb form (non-finite), proved to be significant predictors of quality in students' written language. Chinn (1979) provides support for these findings in two studies, both of which

indicated a positive correlation between verb choice and writing quality, as measured by an holistic evaluation device.

In summation, not only was effective instrumentation developed to measure verb usage, but certain significant findings did result from the application of these instruments.

### Conclusions

1. There is a developmental trend in the variety of verbs used in written language between Grade 8 and 12 students, and between high and low ability students in Grades 8 and 12.

2. The variety of verbs used in students' written language is a predictor of writing quality at the Grade 8 level and at the Grade 12 level.

From these results, it appears that quality in written language is, in part, affected by the frequency of verbs used.

3. The level of verb maturity used in students' written language is a significant predictor of writing quality at the Grade 12 level.

4. There is a developmental trend in the use of non-finite verb forms in students' written language between

Grades 8 and 12, and between low and high ability students in Grades 8 and 12.

5. There is a developmental trend in the number of errors in students' written language between low and high ability students in Grades 8 and 12, the older, more-skilled writers, making less errors.

6. The use of non-finite verb forms in students' written language is a predictor of quality at the Grade 12 level.

Thus, from this study's results, it appears that quality in students' written language is affected, in part, by the number of verb errors and by the use of non-finite verb forms.

7. There is a developmental trend in the use of extended verbs in students' written language between Grades 8 and 12.

8. At Grades 8 and 12, verb form (finite), verb function (dynamic and stative) and verb intensity (basic) did not affect quality in students' written language, nor did they reveal any developmental trends between the grade levels, or between ability levels.

9. The instrumentation developed for this study was effective in varying degrees, producing significant results for the dependent variables of verb frequency, verb maturity, verb form (non-finite), and verb intensity

(extended).

### Implications for Further Research

The outcomes of this study suggest certain implications for further investigations.

1. Because there was limited success in the analysis of verb intensity (basic, extended), a more exact decomposition of the semantic component of the verb is required. Perhaps this could be accomplished by modifying Paivio's (1971) concrete-abstract continuum.

2. Because students frequently employ idiomatic expressions containing verbs, further research into this area may yield important information.

3. Because this study focused solely upon the use of verbs in fictional narrative discourse, future investigations may profit from the analysis of verbs in other written discourse modes.

4. Because samples of students' writing for this study were taken from natural classroom settings, the application of an experimental design may support or extend this study's conclusions.

5. Because this study was exploratory in nature, particularly in the development of instrumentation, future research may focus upon one or two aspects of the verb analysis presented. Furthermore, future investigations may

wish to refine particular analytical procedures.

6. The Living Word Vocabulary (Dale and O'Rourke, 1976) as a method of analyzing verb maturity and verb intensity contained limitations. Thus, future researchers will need to utilize a more current lexicon of common English usage.

7. Because the current study investigated the written discourse of grades 8 and 12 only, future research could expand the analysis to other grade levels.

8. Because the current study found virtually no examples of total ellipses during the analysis of verb form, a focus upon partial ellipses may reveal important conclusions.

9. Gender, as an independent variable, may be a critical factor in verb analysis.

10. Because this study focused solely upon students' written discourse, verb usage in oral language may produce significant empirical results.

#### Implications for Instruction

This study lends support to the notion that the investigation of verb usage in students' written language will yield valuable implications for the classroom teacher. The purpose of this section is to synthesize the findings of this study with certain features of past research, and

language instruction at the secondary level.

It is obvious to the classroom teacher that students come to learning situations with their own knowledge of the world. This is true, as well, for their knowledge of verbs. The purpose of any sound language arts curriculum is to build upon the existing network of linguistic information. By adding new dimensions, the teacher expands and extends specific chunks into more useful language components.

How does the classroom teacher make verb study an integral part of the language arts curriculum? An awareness of the complexity of the English verb system is crucial. The verb has form, function, and intensity. Each, in its own right, adds a new dimension to what otherwise may be perceived as a rather simple aspect of English grammar. It is not sufficient to say, for example, that an infinitive fits into the syntactic scheme of a sentence. The teacher must convey the fact that this infinitive serves a functional purpose in the sentence; that is, it may relate logical items, it may express a transition in thought, or it may convey some cognitive relationship. In addition, this verb may have a further feature to it which depicts a certain intensity, or metaphorical sense. Awareness of these distinct components of the English verb system will most certainly assist the teacher in the attempt to instruct

written language expression.

Much of past research has concluded that language processes are developmental. Verb usage in written language is no exception. The variety of verbs used, the increasing use of non-finite verbs, the number of errors, the use of extended verbs, and the level of verb maturity follow developmental trends. Thus, the classroom teacher's knowledge of these acquisitional processes can assist profoundly in the long-term planning of composition lessons.

The written language instructor must focus upon vocabulary development in verbs. Combining a knowledge of the verb system with an awareness of developmental trends, and acknowledging students' prior experiences, the teacher should create well planned units of vocabulary development. However, as many past researchers have agreed, such a plan must not consider the verb in isolation, for a specific verb has little value if it is not studied within the context for which it was intended.

Thus, a theory of verb usage that is applicable to the teaching of composition consists of four dimensions: the students' prior experiences with verbs, a knowledge of the English verb system itself, an awareness of the acquisitional processes of verb learning, and the design of

a composition curriculum which concentrates on verb instruction. To paraphrase Chinn (1979), a verb-oriented composition course would improve the communicative efficiency of students' written language.

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**APPENDIX A**

**LETTER TO SCHOOL DISTRICT TEACHERS**

Susan Pye

John Russell

Box 330

Chemainus, B. C. V0R 1K0

83-05-09

Attention: Language Arts Teachers/English Teachers

re: Collection of Students' Written  
Compositions for M.A. Thesis,  
University of Victoria.

Dear Colleague:

As part of our M.A. Thesis requirements, we need to collect written compositions from students in Grades 4, 8 and 12.

The main purpose of our research study will be the analysis of verb form and function, and its resulting effect upon the quality of students' written language. The research findings will hopefully provide instructional suggestions to composition teachers.

We are seeking your assistance in the collection of written compositions in the following modes of discourse:

1. Description - written depictions of people, places, things and/or events through the detailed creation of sensory images;
2. Factual Narration - the narration of actual sequences of events without additional interpretive and/or imaginative comments by the author;
3. Fictional Narration - the creation of a composition from real or imagined sequences of events. The writer uses interpretive and/or imaginative thought to intentionally entertain the audience;
4. Exposition/Argument - the written explanation of a procedure or an experience with the intended purpose of informing the audience; or the persuasion of the reader to the writer's point of view concerning an issue. Argument may also be a defence of a position; or the emotive expression with regards to the issue.

Would you please observe the following guidelines during the collection of written compositions:

1. Samples are to be a minimum of 300 words in length. No maximum length.
2. Label each assignment or bundle of compositions as Grade 4, 8 or 12. Label each composition as



We will be grateful for any written compositions you can gather. We will be pleased to share the research findings with you upon completion of the study.

Yours truly,

**APPENDIX B**

**VALIDATION PROCESS**

### Validation Process

For the purposes of this study, the researcher conducted a validation procedure for the verb form and verb function interactive table (see Table 5).

1. Criteria for the selection of validators:
  - no particular background in linguistics.
  - varying professional histories.
  - known competent users of the English language.
  
2. The validation materials:
  - excerpt from Ernest Hemingway's novel, The Old Man and the Sea. This passage was used in the training session.
  - excerpt from John Steinbeck's novel Of Mice and Men. This passage was used for the actual validation and verb function tables.
  - definitions of verb forms and verb functions.
  - verb form and function cell examples.
  
3. Instructions for validators:
  - training session. Introduction to purpose of the study, and the verb form and verb function table. Reading of the Hemingway passage, followed by a joint analysis of the verbs. Verbs were

identified by cell numbers with the assistance of the researcher.

- independent validation. Validators read the Steinbeck passage and recorded on the provided tally sheet, the cell numbers identifying each listed verb.

4. Results of the validation process:

- researcher counted total verb phrases in passage.
- researcher calculated the percentage agreement of validators' verb tally to that of the researcher's.
- eighty percent or better agreement on verb tally was considered acceptable for the validation purposes of this study.
- both validators correctly identified 27 verbs from the total of 28 verbs. Thus, the resulting 96 percent accuracy rate was deemed acceptable for the study.

Validation Process Excerpt <sup>1</sup>

He started to work his way back to the stern on his hands and knees, being careful not to jerk against the fish. He may be half asleep himself, he thought. But I do not want him to rest. He must pull until he dies.

Back in the stern he turned so that his left hand held the strain of the line across his shoulders and drew his knife from its sheath with his right hand. The stars were bright now and he saw the dolphin clearly and he pushed the blade of his knife into his head and drew him out from under the stern. He put one of his feet on the fish and slit him quickly from the vent up to the tip of his lower jaw. Then he put his knife down and gutted him with his right hand, scooping him clean and pulling the gills clear. He felt the maw heavy and slippery in his hands and he slit it open. There were two flying fish inside. They were fresh and hard and he laid them side by side and dropped the guts and gills over the stern. They sank leaving a trail of phosphorescence in the water. The dolphin was cold and a leprous gray-white now in the starlight and the old man skinned one side of him while he held his right foot on the fish's head. Then he turned him over and skinned the other side and cut each side off from the head down to the tail.

He slid the carcass overboard and looked to see if there was any swirl in the water. But there was only the light of its slow descent. He turned then and placed the two flying fish inside the two fillets of fish and putting his knife back in its sheath, he worked his way slowly back to the bow. His back was bent with the weight of the line across it and he carried the fish in his right hand.

<sup>1</sup> Hemingway, Ernest. The Old Man and the Sea. New York: Charles Scribner's Sons, 1952, pages 78-79.

Validation Process Verb List<sup>1</sup>

1. started
2. to work
3. being
4. to jerk
5. may be
6. thought
7. do (not) want
8. to rest
9. must pull
10. dies
11. turned
12. held
13. drew
14. were
15. saw
16. pushed
17. drew
18. put
19. slit
20. put
21. gutted
22. scooping
23. pulling
24. felt

25. slit
26. were
27. were
28. laid
29. dropped
30. sank
31. leaving
32. was
33. skinned
34. held
35. turned (over)
36. skinned
37. cut
38. slid
39. looked
40. to see
41. was
42. was
43. turned
44. placed
45. putting
46. worked
47. was bent
48. carried

<sup>1</sup> Hemingway, Ernest. The Old Man and the Sea. New York:  
Charles Scribner's Sons, 1952, pages 78-79.

Validation Process Excerpt<sup>1</sup>

Crooks, the negro stable buck, had his bunk in the harness room; a little shed that leaned off the wall of the barn. On one side of the little room there was a square four-paned window, and on the other, a narrow plank door leading into the barn. Crook's bunk was a long box filled with straw, on which his blankets were flung. On the wall by the window there were pegs on which hung broken harness in process of being mended; strips of new leather; and under the window itself a little bench for leather-working tools, curved knives and needles and balls of linen thread, and a small hand riveter. On pegs were also pieces of harness, a split collar with the horsehair stuffing sticking out, a broken hame, and a trace chain with its leather covering split. Crooks had his apple box over his bunk, and in it a range of medicine bottles, both for himself and for the horses. There were cans of saddle soap and a drippy can of tar with its paint brush sticking over the edge. And scattered about the floor were a number of personal possessions; for, being alone, Crooks could leave his things about, and being a stable buck and a cripple, he was more permanent than the other men, and he had accumulated more possessions than he could carry on his back.

Crooks possessed several pairs of shoes, a pair of

rubber boots, a big alarm clock and a single-barreled shotgun. And he had books, too; a tattered dictionary and a mauled copy of the California civil code for 1905. There were battered magazines and a few dirty books on a special shelf over his bunk. A pair of large gold-rimmed spectacles hung from a nail on the wall above his bed.

<sup>1</sup> Steinbeck, John. Of Mice and Men. New York: Penguin Books, 1937, pages 65-66.

Validation Process Verb List<sup>1</sup>

1. had
2. leaned
3. was
4. leading
5. was
6. filled
7. were flung
8. were
9. hung
10. being mended
11. leather-working
12. were
13. sticking (out)
14. split
15. had
16. were
17. sticking (over)
18. were scattered
19. being
20. could leave
21. being
22. was
23. had accumulated
24. could carry

25. possessed

26. had

27. were

28. hung

<sup>1</sup> Steinbeck, John. Of Mice and Men. New York: Penguin  
Books, 1937, pages 65-66.

**APPENDIX C**

**PILOT STUDY**

### The Description of the Pilot Study

The researcher conducted a pilot study in order to examine the appropriateness of the instrumentation. Five measures of verb usage were involved in the pilot study: verb frequency (the type-token ratio), verb maturity (The Living Word Vocabulary, Dale & O'Rourke, 1976), verb form, verb function, and verb intensity (basic or core meanings and metaphorical extensions).

For the purposes of the pilot study, the basic or metaphorical use of a particular verb was determined by referring to The Living Word Vocabulary. A verb was considered basic when it was used in context with the highest percentage paired with the lowest grade level recorded. For example, the verb "scrape" was listed in The Living Word Vocabulary as:

06	69%	scrape - drag noisily
08	71%	scrape - remove by shaving

The first meaning of the verb was considered the basic or core use because it was more familiar to the lower of the two grade levels.

The pilot study sampling consisted of one Grade 4 high ability student, one Grade 4 low ability student, one Grade 8 high ability student, one Grade 8 low ability student, and

Ernest Hemingway, a recognized adult writer. The five samples were written in the fictional narrative mode of discourse.

### The Results of the Pilot Study

The results of the pilot study are recorded on the accompanying tables.

Table C-1  
Mean Verb Frequency of High and Low Ability  
Students at Different Grade Levels

Written Language Ability	Grade		
	4	8	Adult Writer
High	.82	.84	.76
Low	.59	.65	

Table C-2  
 Mean Verb Maturity of High and Low Ability  
 Students at Different Grade Levels

Written Language Ability	Grade		
	4 <sup>a</sup>	8	Adult Writer
High	.85 (4)	.85 (4)	
	.78 (6)	.75 (6)	
	.83 (8)	.76 (8)	.83 (4)
		.68 (10)	.73 (6)
		.72 (12)	.67 (16)
Low		.56 (13)	
	.87 (4)	.82 (4)	
	.67 (6)	.71 (6)	
		.72 (8)	
		.71 (12)	

<sup>a</sup> Numbers in parentheses indicate the grade level at which the ratio occurs.

Table C-3  
 Mean Verb Forms of High and Low Ability  
 Students at Different Grade Levels

Written Language Ability	Grade		
	4	8	Adult Writer
High			
Finite Verbs	.77	.73	.81
Non-finite Verbs	.12	.23	.19
Missed Verbs	.12	.02	-
Low			
Finite Verbs	.89	.88	
Non-finite Verbs	-	.88	
Missed Verbs	.11	-	

Table C-4  
 Mean Verb Functions of High and Low Ability  
 Students at Different Grade Levels

Written Language Ability	Grade		
	4	8	Adult Writer
High			
Activity	.64	.40	.67
Process	-	.06	.04
Bodily Sensation	-	-	.02
Transitional Event	.05	.13	-
Momentary	-	-	-
Inert Perception	.14	.21	.06
Relational	.14	.16	.21
Low			
Activity	.70	.64	
Process	-	-	
Bodily Sensation	-	-	
Transitional Event	-	.07	
Momentary	-	.02	
Inert Perception	.07	.07	
Relational	.22	.21	

Table C-5  
 Mean Verb Intensity of High and Low Ability  
 Students at Different Grade Levels

Written Language Ability	Grade		
	4	8	Adult Writer
High			
Basic	.72	.68	.77
Metaphoric	.28	.32	.23
Low			
Basic	.81	.71	
Metaphoric	.19	.29	

#### Conclusions of the Pilot Study

1. As indicated by the type-token ratio, there was an increase in verb types with the high ability language user.

2. There was little difference in verb maturity (as measured by The Living Word Vocabulary, Dale & O'Rourke, 1976) between high and low ability language users at all grade levels.

3. A developmental trend was evident in verb maturity. The Grade 8 writer employed some words indexed as Grade 10, 12 and 13 in The Living Word Vocabulary. These grade level

indices were not evident at the Grade 4 level.

4. There was little difference between the verb maturity level of the adult competent writer and younger student writers. This may be due to the fact that Hemingway's prose is noted for its basic syntactic and semantic simplicity.

5. The majority of verbs occurred in the finite verb form.

6. The majority of verbs occurred in the activity and relational function categories. The relational category included the "be" verb and all its forms.

7. Language users appeared to require a high level of concreteness (as indicated by the high percentage of activity verbs) in order to convey meaning in a passage.

8. A low percentage of missed verbs was evident in student writing at both grade levels.

9. A trend was evident in the measurement of verb intensity. As writers mature they employ fewer basic sense verbs in favor of more metaphorical extensions.

#### Implications of the Pilot Study

1. Teachers of written language should concentrate on vocabulary development, since verb types appear to be an indication of language development.

2. Instruction in verbs, especially for young writers

should focus largely upon the use of finite verbs. Non-finite verbs appear more manageable for older students.

3. Vocabulary instruction in verbs should reflect the high percentage use of activity and relational (and, to a lesser extent, inert perception and cognition), evident in English prose. Activity verbs seem to satisfy the need to be more concrete, and to express the "alive" component in writing.

4. Instruction in verb usage will benefit from an awareness of the distinction between the basic sense of a verb and the potential metaphorical extensions of the same verb. As students mature, they are more able to recognize and use metaphorical extensions of verbs.

APPENDIX D

GENERAL IMPRESSION HOLISTIC RATING

## Introduction

General impression holistic rating occurred when a trained judge decided where a written sample fitted within a predetermined range according to established criteria. In the present study, the ratings occurred along a 2, 4, 6, 8, and 10 continuum. The judge recorded the general impression of each paper by circling the appropriate number on the record sheet provided (see Table D-1).

### General Impression Holistic Rating Criteria

#### General Statement

The writer uses words in sentences to transmit meaning effectively in the fictional narrative mode of discourse. The fictional narrative mode of discourse is the creation of a composition from real or imaged sequences of events, in which the writer uses interpretive and/or imaginative thought to entertain the audience.

#### Specific Criteria for General Impression Holistic Rating

The following specific criteria were given to judges prior to the holistic rating procedure:

### 1. Vocabulary

- Is the vocabulary varied and unique?
- Does the vocabulary reflect word maturity?

### 2. Fluency

- Does the writer exhibit control of the language?
- Does the writer use connectives (for example, words and phrases such as "more over", "in addition to", "consequently", etc.)?

### 3. Sentence structure

- Does the writer exhibit knowledge of variations in sentence structure (for example, subject/predicate inversion, use of coordination, subordination, etc.)?

### 4. Appeal to audience

- Does the writer compose an appealing story?

### Additional Comments to Judges

Judges were to disregard the mechanical aspects, that is spelling, punctuation, paragraphing and capitalization, of the written samples during holistic evaluation. Similarly, judges were to ignore any existing evaluative markings occurring on written samples.

TABLE D-1

Grade \_\_\_\_\_

Judge's Record Sheet

Paper Number					
1	2	4	6	8	10
2	2	4	6	8	10
3	2	4	6	8	10
4	2	4	6	8	10
5	2	4	6	8	10
6	2	4	6	8	10
7	2	4	6	8	10
8	2	4	6	8	10
9	2	4	6	8	10
10	2	4	6	8	10
11	2	4	6	8	10
12	2	4	6	8	10
13	2	4	6	8	10
14	2	4	6	8	10
15	2	4	6	8	10
16	2	4	6	8	10
17	2	4	6	8	10
18	2	4	6	8	10
19	2	4	6	8	10
20	2	4	6	8	10
21	2	4	6	8	10
22	2	4	6	8	10
23	2	4	6	8	10
24	2	4	6	8	10
25	2	4	6	8	10
26	2	4	6	8	10
27	2	4	6	8	10
28	2	4	6	8	10
29	2	4	6	8	10
30	2	4	6	8	10
31	2	4	6	8	10
32	2	4	6	8	10
33	2	4	6	8	10
34	2	4	6	8	10
35	2	4	6	8	10
36	2	4	6	8	10
37	2	4	6	8	10
38	2	4	6	8	10
39	2	4	6	8	10
40	2	4	6	8	10



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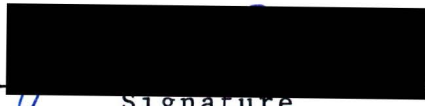
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Title of Thesis

The Development of Methods for Assessing Verb Usage in  
Written Language at Grades 8 and 12

Author



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August 28, 1984.

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