

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

ACCEPTED

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#### ABSTRACT

This study investigated the use of the English verb, and its effect upon the quality of students' written language at Grades Four and Eight. The development of verb usage instrumentation which specifically measured verb frequency, verb maturity, verb form, verb function, and verb intensity in students' written language was accomplished through a survey of verb theory and semantic theory.

Samples of students' fictional narrative writing were collected from natural classroom settings in the Cowichan and Lake Cowichan School Districts, British Columbia, Canada. The classroom teachers labelled individual samples as written by either low or high achievers in written language. These samples were used to develop and validate the effectiveness of instrumentation. The quality of the samples was determined by three independent judges employing a holistic rating device.

The independent variables in this study were grade (Four and Eight) and ability (low and high achievers in written language). The dependent variables were verb

frequency, verb maturity, verb form (finite, non-finite, errors), verb function (dynamic, stative), and verb intensity (basic, extended). Two statistical tests were applied: a multivariate analysis of variance, which showed significant differences between dependent variables, and a stepwise multiple linear regression, which indicated the best predictors of writing quality.

The MANOVA yielded significant differences for verb frequency (grade, ability), non-finite verb forms (grade, ability), verb errors (ability), and extended verb intensity (grade). The stepwise multiple linear regression demonstrated that verb frequency (Grade Eight), finite verb forms (Grade Four), verb errors (Grade Four), and stative verb function (Grade Four) are significant predictors of writing quality. Verb maturity, verb function (dynamic) and verb intensity (basic) showed no significant results.

This study concluded that there are developmental trends in specific components of verb usage in students' written language. Likewise, it concluded that verb usage affects the quality of students' written language. It also concluded that the instrumentation developed was effective in varying degrees for measuring verb usage in students' written language.

As a result of surveying extant research, and analyzing this study's findings, a theory of verb usage applicable to the teaching of written composition at the elementary level was proposed. Four dimensions of verb usage were identified: knowledge of the verb system, students' prior experiences, the acquisitional nature of verb learning and the development of a verb vocabulary.

This study was developed in conjunction with John Russell. Therefore, the collaborative nature of the research has resulted in tables and appendices which appear both in this thesis, and in Mr. Russell's (1984) thesis.



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teacher.

Finally, to my Father - thanks for your assistance in the validation and holistic rating procedures, for caring during those intense summer sessions, and for your wisdom - this thesis is dedicated to you.

## CHAPTER I

### THE PROBLEM

#### The Context of the Problem

Criticism of the educational system is perennially focused on literacy issues. Both the public and educators question why students cannot effectively communicate in writing. These concerns have led to the development of diverse written language studies, and specifically in British Columbia, to the provincial-wide assessment of students' writing skills.

The written language problem has been investigated by researchers in education, linguistics, philosophy and psychology. These varying perspectives have resulted in a body of knowledge seeking to explain the writing process.

Loban's (1976) longitudinal study has prompted exploration into particular aspects of the writing process. For example, Loban suggested the practical value of examining the effect verb usage has upon students' writing. Loban acknowledged the significance of verbs, "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). However, Loban was unable to determine the nature of the relationship between verb usage and written language. Loban lacked instrumentation designed specifically for the investigation of verb usage in writing.

The present study is a consequence of the literacy issue, of Loban's (1976) suggestion that theoretically the verb may be essential to the quality of writing, and of the need for instrumentation to assess verb usage in written language.

#### The Problem

The primary purpose of this study was to develop and validate instrumentation which would assess verb usage in students' written language at Grades Four and Eight. The dependent variables, verb frequency, verb maturity, verb form (finite, non-finite, errors), verb function (dynamic, stative), and verb intensity (basic, extended) were the measurable dimensions of verb usage.

The study also explored the predictive effect the five

dimensions of verb usage had upon the quality of students' written language. Utilizing a holistic rating device, judges determined the quality or effectiveness of the transmission of meaning in written samples. The researcher then ascertained the predictors of writing quality according to verb usage.

In addition, the study proposed a theory of verb usage applicable to the teaching of elementary composition. Through the analysis of the study's findings, and by surveying extant verb and semantic theory, the researcher formulated a verb theory of practical value to the classroom teacher.

The verb usage variances between the independent variables; that is, grade (Four and Eight), and ability (low and high achievers in written language) were also investigated.

In summation, this exploratory study had four central purposes: (a) the development and validation of instrumentation for assessing verb usage in students' written language, (b) the determination of the predictors of writing quality according to verb usage, (c) the proposal of a theory of verb usage applicable to the teaching of composition, and (d) the investigation of verb

usage variances between grade and between ability.

### The Research Questions

The exploratory and theoretical nature of this study is reflected in the following research questions:

1. Can instrumentation, which measures verb usage in students' written language, be developed from extant verb theory, semantic theory and written discourse theory?
2. Are there relationships between verb frequency, verb maturity, verb form (finite, non-finite, errors), verb function (dynamic, stative), and verb intensity (basic, extended) and: (a) the grade of students (Four, Eight), (b) the written language ability of students (low, high), and (c) the quality of students' written language (as measured by a holistic rating device)?
3. Can extant verb theory, semantic theory and written discourse theory be synthesized into a theory of verb usage applicable to the teaching of written language at the elementary level?

Responses to the research questions were determined by developing and validating instrumentation, by analyzing the resultant statistics, and by relating the findings to extant research.

### The Definition of Terms

The following definitions of important terms found in this study are arranged according to their order of appearance within the text:

1. Written language literacy. The ability of a writer to compose passages which are syntactically correct, cohesively organized and clearly written.

2. Writing quality. The effectiveness of a written passage to convey meaning to the intended audience, as measured by a holistic rating scale. The assessment of writing quality includes acceptable syntactic structures, as well as effective semantic features.

3. Verb frequency. The variability or frequency of verbs in a composition, as measured by the type-token ratio.

4. Type-token ratio. The type-token ratio, or T.T.R., is a variability measurement for specific aspects of language. For example, the number of different verbs (types) divided by the total number of verbs (tokens) would give the T.T.R. for verbs in a written passage. In order to standardize the T.T.R. instrument for this study, from the first 300 words of a composition, only 30 verbs were selected: the first 10 verbs, the middle 10 verbs and the final 10 verbs.

5. Verb maturity. The level of sophistication of verbs used in a composition, as determined from an analysis

of the entries in The Living Word Vocabulary (Dale & O'Rourke, 1976). The grade level index was determined for each verb within the context of a passage.

6. Verb form and verb function. The tabulation of a verb's form and function on the verb form and function table (see Table 3). This tabulation was accomplished through the contextual analysis of verbs in a written passage.

7. Verb forms. The syntactic classification of verbs into the following forms:

7.1. Finite verbs. (Quirk, Greenbaum, Leech, & Svartvik, 1972) A finite verb requires a subject from this list: I, we, he, she and they (for example, I write, we could write). A finite verb may occur as the verb phrase of a main clause, it has tense distinction, and it has mood which shows the writer's attitude to the predication; that is, indicative, imperative or subjunctive. (p.71-75)

7.2. Non-finite verbs. (Quirk et al., 1972) A non-finite verb phrase lacks tense distinction and imperative mood. It cannot occur in conjunction with a subject of a main clause. Infinitives, participles and gerunds (for example, to write, writing) are classified as non-finite verbs. (p.75-76)

7.3. Ellipses. A verb phrase in which part of the construction is not expressed because of its proximity to another verb phrase (for example, We ran faster than they [ran].).

7.4. Errors. The non-conventional use of a verb in a

written passage, either syntactically and/or contextually.

8. Verb functions. The classification of the use of verbs into the following functions:

8.1. Dynamic verbs. (Quirk et al., 1972) A dynamic verb, which naturally occurs in a dynamic situation, may have change and development. The situation may be complete or incomplete with a beginning, middle or end depending on the use of the simple form or progressive aspect (p.93-97).

Dynamic verbs are classified into five sub-categories:

8.1.1. Activity verbs. For example, beg, as, run, swallow, eat, teach, listen, fix, read, say, throw, ride, write.

8.1.2. Process verbs. For example, deteriorate, change, grow, slow down, mature, widen.

8.1.3. Bodily sensation verbs. For example, felt, ache, hurt, itch, sting.

8.1.4. Transitional event verbs. For example, depart, arrive, die, born, land, fall, lose, leave.

8.1.5. Momentary verbs. For example, bang, jab, tap, jump, nod, knock.

8.2. Stative verbs. (Quirk et al., 1972) Stative verbs, which usually occur in the simple form, remain constant from one moment to the next because they describe the quality or property of something (p.93-97). Stative verbs are classified into two sub-categories:

8.2.1. Inert perception and cognition verbs. For example, adore, believe, astonish, doubt, feel, guess, hate, know,

hear, like, love, recognize, realize, think.

8.2.2. Relational verbs. For example, sound, be, belong, contain, concern, include, cost, have, need, possess, seem.

9. Verb intensity. The quality of meaning possessed by verbs used in a composition, as measured by the distinction between basic meanings or extended meanings. The most common definition of a verb is its basic meaning (for example, the basic meaning of "run" is to move at a rapid gait). However, the extended meaning of a verb refers to its less common associations (for example, an extended meaning of "run" is to publish or print a story).

10. Fictional narrative mode of discourse. Using interpretive and/or imaginative thought, the writer creates a written passage which is intended to entertain an audience. Sequencing within the composition is a result of real or imagined events.

11. Written language ability. The classroom teacher's identification of a student's ability in written language. Utilizing informative and summative evaluation, the teacher rated students as low, middle or high achievers in written language.

### The Design of the Study

The exploratory and theoretical nature of this study is

reflected in specific aspects of its design. Because collected samples were used to develop and validate instrumentation techniques, students' compositions were gathered from natural classroom situations. The provision of lesson plans to control the production of compositions was eliminated by providing cooperating teachers in the Cowichan and Lake Cowichan School Districts, British Columbia, with guidelines for selecting extant samples (see Appendix A). The researcher then restricted the analysis of samples to fictional narratives, and to passages written by low and high achievers in written language.

The development of instrumentation to assess verb usage in students' written language was the central purpose of this study. Therefore, the application of the verb frequency, verb maturity, verb form, verb function and verb intensity instruments to the samples created the data base for analysis. The analysis of data included both descriptive and inferential statistics. Chapter III provides a thorough description of this study's design.

#### The Limitations of the Study

The following limitations in this study are acknowledged by the researcher:

1. Experimentally controlled aspects of the study's design were limited. For example, the sampling technique employed the collection of extant compositions.

2. The development of instrumentation was limited to the assessment of five dimensions of verb usage; that is, verb frequency, verb maturity, verb form, verb function and verb intensity.

3. The analysis of verb usage was restricted to students' compositions. Therefore, the proposed verb theory is applicable only to the teaching of written language. The theory did not relate verb usage to other forms of communication; that is, speaking, listening and reading.

4. The analysis of verb usage was further restricted to fictional narrative compositions. The other recognized modes of discourse; that is, description, factual narration and exposition/argument, were not included in the analysis of data.

5. Empirical and methodological support for this study was limited in quantity, and peripheral in nature.

6. Grade and geographical limitations were evident because sampling procedures involved only Grade Four and Eight students in the Cowichan and Lake Cowichan School Districts.

7. Gender variances in verb usage was not explored.

8. This study did not consider cross-cultural factors.

## The Significance of the Study

The development of instrumentation for assessing verb usage in students' written language may lead to findings which add to education's knowledge of the composing process. The relationship between verb usage and writing quality may increase awareness of the significance of one essential feature of our language - the verb. The proposal of a theory of verb usage applicable to the teaching of written language may prompt the revision of instructional strategies. This exploratory and theoretical study may also encourage further research into verb usage and written language. In summary, the primary significance of the study is that the theoretical basis of verb usage in students' written language may be of practical value to the classroom teacher.

## Organization of the Study

Chapter I has outlined an introduction to this study. The remaining chapters are organized as follows:

Chapter II: Review of the Literature

III: The Design of the Study

IV: Analysis of the Data

V: Discussion, Conclusions and Implications

## CHAPTER II

### REVIEW OF THE LITERATURE

#### Introduction

This review of the literature relates theory and relevant research to the present study. The establishment of the theoretical framework is achieved through a discussion of verb theory, semantic theory and written discourse theory. Empirical and methodological support for the study are summarized through a survey of related research.

#### Theoretical Framework

##### Introduction

The theoretical framework for the current study synthesizes the ideas of the verb theorists (Joos, 1964; Palmer, 1974; Quirk et al., 1972), the semantic theorists (Norman, Rumelhart & the LNR Research Group, 1975; Paivio,

1971) and the written discourse theorists (Britton, 1971; Gibson, 1969; Hirsch, 1977; Kinneavy, 1971; Lloyd-Jones, 1977; Moffett, 1968). Because the central purposes of this study are the proposal of a verb theory that is applicable to the teaching of written language, and the development of instrumentation, it is critical that relevant theory be thoroughly discussed.

### Verb Theory

For the purposes of this study, the verb theorists (Joos, 1964; Palmer, 1974; Quirk et al., 1972) generate a rationale for studying the verb specifically. Their theoretical position also allows the present researcher to construct an instrument which assesses the use of verb form and verb function in written language.

Joos (1964), a descriptive linguist, believed that language is finite; that is, its elements could be counted. He maintained 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). Joos delineated a complex syntactic description of the English verb system. He assumed, "all languages are equally easy, taken as wholes; but each has its greatest difficulties located in its own place" (p.vii). In the English language, Joos

suggested it was the verb system that posed the greatest difficulties. His verb classification scheme, which distinguished finite and non-finite verb forms, was a way of explaining the most syntactically complex part of our language.

To summarize, Joos states an explanation of the syntactic component of the English verb system. Thus, his two-way classification of finite and non-finite verb forms establishes a base for the development of the present study's instrumentation which measures verb form and verb function.

Palmer (1974) was interested not only in the syntactic structure of the verb, but also in the way it transmits meaning. He supported the theoretical position of Joos, but depicted verb function, or the semantics of the verb, in his classification. Palmer contended that verb patterns of all languages differed in two ways, "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).

In a similar manner to Joos, Palmer categorized the verb phrase into two forms: finite and non-finite. Palmer further analyzed the verb into functions: voice,

progressivity, non-progressivity, tense, modal auxiliaries, marginal verbs and compound verbs.

Palmer's attempt to convey completely the total organization of the verb into form and function is important to the current study. This practical information is needed to create the research instrument. However, Palmer's ideas only approximate the concept of the functional attributes of the verb. His function categories are descriptive of the verb's syntactic use; they do not adequately illustrate the semantic component of the verb.

In contrast to Palmer and Joos, Quirk et al. (1972) compiled a comprehensive text of descriptive grammar by combining traditional grammar theory with several contemporary linguistic theories. Quirk et al. devised an intricate analysis of the verb system which consisted of verb form (finite and non-finite) and verb function (dynamic and stative). The function aspect of the classification scheme was subdivided into distinct 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. Quirk et al.'s categorization of verb functions gives the present study a technical foundation for the development of an instrument sensitive to verb function as

used in written language.

Quirk et al. emphasized the importance of contextual analysis when classifying verbs, "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). Thus, the meaning of a specific verb is dependent upon its contextual use. This use theory has direct implications for the current study. Through the contextual analysis of verb form and verb function in students' writing, the researcher deduced how the transmission of meaning is affected by verb usage.

The verb theories of Joos (1964), Palmer (1974), Quirk et al. (1972), originating from both traditional and contemporary schools of thought, enabled researchers to map the syntactic aspects of the verb system. Although the verb theorists recognized the influence of the verb system on meaning, their theoretical position was limited to the function, or use of the verb. Quirk et al., for example, defined momentary verbs as those having little duration, and suggestive of repetition (p.96).

The functional approach to the semantics of the verb is innately linked to the syntax of the verb. Unfortunately, the approach fails to connect verb meaning with how people

send and receive verbal information. However, recent semantic theorists (Norman et al., 1975; Paivio, 1971) attempt to describe the underlying cognitive processes involved in effective communication. Their theories give the present study a framework for the qualitative or subjective assessment of verb usage in written language.

### Semantic Theory

Researchers in education, linguistics, philosophy and psychology have attempted to answer the complex question, "What is meaning?". These different perspectives have resulted in semantic theories which explain properties and relations, which seek the essence of meaning and which interpret how people communicate information. Fodor (1977) contends:

The question "What is meaning?" has too often been misconstrued as a request for a simple, direct answer (eg., "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)

The development of current semantic theories thus has its roots in many disciplines, and its foundations based on early semantic theories.

Historically, semantic theory began as a way of partially describing semantic properties and relations. These identity theories were based on three hypotheses: the meaning of an expression is what it refers to (the referential theory); the meaning of an expression is the association of an idea in an individual's mind (the ideational theory); and the meaning of an expression is the stimulus that evokes it and/or the response it elicits (the behavioral theory) (Fodor, 1977; Lyons, 1981). Fodor summarizes both a problem, and the value of 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 limited scope of the identity theories eventually evolved into less simplistic semantic theories which further endeavored to describe the properties and relations of expressions, and how people communicate information. The semantic use theories of verification, speech acts and truth conditions were characterized by the belief that the meaning of an expression or a word is its use in language. Use theories also emphasized the role of language in human life.

theories also emphasized the role of language in human life.

Fodor elaborates:

Language is integrated into our behaviour 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)

The verification theory viewed the meaning of declarative sentences as the way in which they could be proven true or false. Because the method of verification was the primary concern of the researcher, the relationship between the sentence and its existence (or non-existence) in the world became a statement of abstract true-false conditions.

The theory of speech acts expanded the narrow range of the verification theory to include the kinds of acts caused by imperative and interrogative sentences. Through a description of a speaker's intentions and the specified use of a sentence, the speech acts theorists determined the meaning of sentence types.

By integrating the basic concepts of verification

theory and speech acts theory, the truth conditions theorists explained meaning through the logical reference to conditions which would make a sentence true.

The philosophical ideals of reference and truth were used to determine semantic properties and relations, and to seek the essence of meaning. In contrast to the unstructured approach of philosophers, linguistic semanticists assigned semantic components to existing generative grammars. The interpretive semantic theory, the extended standard theory and the theory of generative semantics explained meaning with a framework of generative grammar (Fodor, 1977). The theories differed in the way they related semantic and syntactic structures. Fodor comments:

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)

For example, the interpretive semantic theory, which specified the meanings of items in a sentence in relation to the "recursive rules operating over syntactic structures" (Fodor, 1977, p.64), did not stress sentence transformations to the extent that extended standard theory did. The interpretive semantic theorists accounted for the meaning of

a sentence through the illustration of its deep structure, while the extended standard theorists also included surface structures in their interpretation of meaning.

In comparison, the generative semanticists gradually developed syntactic transformations which related abstract deep structures to a sentence's surface structure without the semantic rules which governed the interpretation of the lexical items.

The preceding survey of both early and current semantic theories emphasizes the complexity of understanding meaning. These theories create the background for the discussion of specific semantic theory relevant to the present study. The work of Norman, Rumelhart, and the LNR Research Group (1975) and Paivio (1971) is particularly influential in the development of a verb theory which applies to instruction in written language.

The fundamental hypothesis of Norman et al.'s research is that "information within human memory can be represented by means of an active structural network" (p.35). The active structural network consists of the decomposition of the semantic deep structure into a "labeled, connected network or graph [with] nodes interconnected by a set of relations" (p.35). This process of decomposition allows the

researcher to understand the cognitive act of comprehension which "involves a large variety of cognitive processes, all working together to integrate new information into the structures that already exist in a person's mind" (p.32). The existing structural framework or schema is based on the individual's knowledge and experience of the world. As newly acquired information is introduced, the schema guides active interpretation, and also initiates the "search for new information to fill gaps left in the structure" (p.7).

Kaplan, one of the associates in the Norman et al. (1975) research group, provides a rationale for the structural network:

A common way to approach a phenomenon or system as complicated as language comprehension is to find some way of decomposing it into less complicated, more manageable subdomains, to study these in isolation from one another, and then, when the separate components are well understood, to study their interactions. The success of this kind of enterprise depends, of course, on discovering the "right" decomposition, one whose components are individually simpler than the total system, and combine in relatively simple ways. (p.117)

Using a decomposing procedure, the present researcher

designed a method to determine the effects of verb usage on the transmission of meaning in student's written language. Specifically, the method analyzed the verb's basic meaning and its related extensions. The analytical classification of verbs, which Norman et al. formulated, was adapted to suit the needs of the present study.

Norman et al.'s semantic classification consisted of four classes of primitive verb components, each associated with a different aspect of meaning:

1. Static - the simplest component of a verb which communicates information that a particular state of the world holds for some specified period.
2. Change of state - the component of a verb which denotes a change from one state to another, but the cause of the change remains unspecified.
3. Causatives - the causal component of a verb identified when a change of state takes place. It is the source, or reason for, the change.
4. Actionals - the component of a verb which describes the behavior involved in the performance of the action specified by the verb. (p.47)

These researchers intended the classification scheme to act as a possible framework for the semantic analysis of the verb system. For the purposes of the current study, the semantic analysis of verbs used in students' written

language was accomplished through the identification of the basic meanings, which correspond to the static component of Norman et al.'s classification, and of their related extensions. By decomposing the verb system into a two-component classification, the researcher may discover evidence of the underlying psychological processes involved in the transmission of meaning in students' written language.

Gentner, another member of the Norman et al. (1975) research group, lent support to the theoretical justification for using basic meanings and their extensions in the semantic analysis of the verb. Concentrating on verbs of possession, Gentner delineated the basic possessive sense and the verb's metaphorical extensions by analyzing the primitive components of the verb's semantic structural network within the syntactic framework of the sentence. Gentner argued that, "to understand the meaning of a sentence, it is necessary to expand the lexical items to their semantic components and to link these components in the way specified by the sentence" (p.227).

Gentner hypothesized that verbs are stored as inter-related sets of "chunks" (p.228), which semantically consist of the basic sense and metaphorical extensions of the verb. She further hypothesized that the development of word

meanings, specifically possession verbs, progresses through a series of stages, whereby new chunks are added to existing representations. Gentner 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 features of the adult meaning" (p.233).

Gentner and her colleagues in the Norman et al. research group promoted the decomposition of the sentence into semantic components. In a similar manner to the generative semanticists, they created a framework within which the verb could be analyzed semantically. Inferences were then made concerning how the individual processes language effectively.

Evans (1981) also explained language processing in his "model of assumed relation of semantic space to verbal stimuli" (p.1), which illustrated that, "meaning is an active and growing process occurring within the individual's cognitive functioning" (p.1). During the construction of semantic concepts, an individual requires several psychological processes (perception, symbolization and abstract thinking), as well as the influence of experience, social values and customs.

According to Evans' theory, individuals attach meaning to a verbal stimulus when it enters their semantic space, which is defined as a multidimensional reservoir serving to process words. The meaning assigned to a word, therefore, depends upon the dimensions that make up the 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, a particular word may have only selected meaning dimensions, the nature of which determines the meaning of the word. These dimensions also vary in relation to the complexity of the cognitive processes required to develop them. Hence, Evans acknowledged that individual differences determine the availability, and even the existence of specific dimensions.

In contrast to the theoretical viewpoints of Norman et al. and Evans, Paivio (1971) hypothesized that a dual coding system, existing within the individual, is responsible for the effective transmission of meaning. This symbolic representational system consists of nonverbal imagery and

verbal processes, which are developmentally related to concrete experiences and abstract language. Paivio believed that as individuals mature, they become more capable of dealing with abstraction; that is, understanding information which is temporally and spatially remote. Thus, Paivio's theory emphasized "the psychological meaning of stimuli, which, theoretically, refers to the capacity of words and nonverbal objects and signs consistently to arouse covert and overt reactions" (p.51).

According to Paivio, nonverbal imagery and verbal processes could be functionally differentiated on the basis of three dimensions:

1. Concrete/abstract dichotomy - Both symbolic modes are readily aroused and can be functionally useful when the situation is relatively concrete, whereas verbal processes will be differentially favored when the situation is relatively abstract. (p.9)
2. Parallel/sequential processing systems - Visual imagery is regarded primarily as a parallel processing system, specialized for the storage and symbolic manipulation of information concerning spatially organized objects and events. The verbal system, on the other hand, is specialized for sequential processing, as in serial memory tasks, by virtue of its auditory-motor nature. (p.9)

3. Static/dynamic distinction - imagery [is] viewed as the more dynamic process, capable of flexible and swift symbolic transformations. (p.9)

Paivio also stresses that there is continuous interaction between nonverbal imagery and verbal processes, and that neither functions independently. He elaborates:

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)

Relating particularly to the focus of the current study, Paivio acknowledged the abstractness of verbs compared to the concreteness of nouns. The meaning of a verb is dependent on the contextual nature of the sentence. Paivio comments that verbs "can evoke images only by being concretized as an action involving an imagined object" (p.61). With regards to the static/dynamic distinction, Paivio recognized the representational or static function of concrete nouns and noun phrases because "they symbolize objects and situations" (p.31), and the dynamic function of verbs or verb phrases because they "effect transitions in

the stream of thought by virtue of their capacity to represent movement and change" (p.31).

As a psychologist, Paivio explains the phenomenon of meaning through the illustration of structures within the individual. This experimental approach is a departure from the generally accepted method of explaining meaning by decomposing the sentence into a semantic framework. For the purposes of the present study, Paivio's theoretical position may give additional psychological reasons why a writer selects specific verbs during the writing process. By interpreting both external evidence (the semantic decomposition of the sentence), and internal evidence (what happens within the writer), the present researcher investigated how verb usage affects the transmission of meaning in students' written language.

A discussion of verb theory and semantic theory establishes the theoretical framework for the development of this study's instrumentation. The following explanation of written discourse theory forms the rationale for the selection of fictional narration as the mode of writing in the study, and relates the concept of effective written communication, or writing quality, to verb usage.

## Written Discourse Theory

Initially, a discussion of written discourse theories must acknowledge their diverse natures, and the complexity of the writing process. Thus, Cooper and Odell (1978) state that "there is no single set of terms and no single well-established, widely shared body of knowledge that constitutes modern discourse theory" (p.2). However, the development of the theoretical framework for the current study is dependent upon the beliefs of three distinct schools of written discourse thought: the purpose of discourse theorists (Kinneavy, 1971; Lloyd-Jones, 1977); the relation of speaker, subject and audience theorists (Britton, 1971; Cooper & Odell, 1978; Gibson, 1969; Moffett, 1968); and the psychological bases of effective communication theorist (Hirsch, 1977).

Recent theory on written discourse has placed much emphasis on the purpose of writing. Kinneavy (1971) maintained that "purpose in discourse is all important. The aim of discourse determines everything else in the process of discourse" (p.48). As a result, Kinneavy divided discourse into four categories of purpose:

1. Reference - the purpose of which is to provide scientific, exploratory and informative discourse.
2. Persuasive - the purpose of which is to prompt

physical, intellectual or emotional action.

3. Expressive - the purpose of which is to express the writer's personality or point of view.

4. Literary - the purpose of which is to create a structure of language possessing its own aesthetic worth. (p.39)

To further clarify his theoretical position, Kinneavy hypothesizes that the four purposes involve varying cognitive processes, and produce discourse with distinctive styles and patterns of organization. Hence, as Kinneavy and Lloyd-Jones (1977) suggest, a writer who is skilled in one mode of discourse may not necessarily have comparable skills in another mode. Lloyd-Jones elaborates, "the writer of a good technical report may not be able to produce an excellent persuasive letter to a city council" (p.37).

For design efficiency, the present study required a mode of discourse that would provide a sufficient quantity of writing from each subject. Therefore, because the samples came from students in two grade levels and with varying written language ability, the selected mode was adapted from what Kinneavy calls the expressive purpose. In particular, students were requested to write fictional narrative passages, because this task is within the cognitive abilities of all subjects, and produces

statistically acceptable quantities of writing.

Theory based on the topic of speaker (or writer), subject and audience has concentrated less upon discourse purpose because of the belief that the relation of the writer to the intended reader is central to all discourse types. Gibson (1969) and Moffett (1968), in describing the various relationships of speaker to audience, assumed that it is distance between speaker and audience that dictates shifts in the relationship between the two.

Specifically, Gibson established a continuum of this speaker-audience relationship. His continuum, which was vaguely defined as intimate to formal, suggests that a metaphorical space "helps account for the relative intimacy or formality of a speaker-audience relationship" (p.53).

Moffett expands Gibson's theory of metaphorical or physical space by combining it with distance in time. As reported in Cooper and Odell (1978), Moffett proposes another speaker-audience continuum:

That begins with interior monologue, in which 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 drew an intriguing parallel when he compared the changes in speaker-audience relationship with human intellectual development. This development proceeded from egocentric to decentered functioning. Cooper and Odell explained:

Egocentric discourse, Moffett says, is characterized by a speaker talking to him or herself or an immediate audience - a friend, say - about phenomena that presently exist. As one becomes more decentered, one is able to address remote audiences about subjects that are not part of one's present, firsthand experience. (p.5)

Britton (1971) extends Moffett's speaker-audience continuum into six stages, consisting of record, report, generalized narrative or descriptive information, analogic (at a low level of generalization), analogic (at a higher level of generalization), and tautologic. Each stage involves an increased degree of space between the speaker and audience.

Although differing in terminology, Gibson (1969), Moffett (1968) and Britton (1971) delineated parallel theories of discourse. Each researcher recognized the theoretical distance between speaker and audience, and connected this concept with the intellectual development of the individual. To summarize, the less skilled writer is egocentric and appeals to an immediate audience; whereas, the skilled writer is more decentered and can thus appeal to a broader, more distant audience, both in time and space.

This discussion of the speaker (or writer) - audience relationship lends support to the choice of fictional narration as an appropriate mode of discourse for the current study. Relating to the theories presented, fictional narration lies approximately in the middle of the egocentric-decentric continuum. Thus, the subjects are not involved in totally self-oriented discourse, and conversely, are not speculating or providing an argument to a distant audience. They are combining Moffett's firsthand experience with material of a more generalized nature, as described by Britton.

Recently, researchers in psychology have entered the realm of language study. A comparison can be drawn between these psycholinguists and researchers who have been labeled theorists on speaker-audience relationships. The two

schools of thought, in contrasting oral language with written language, assert that the former possesses a precise situational context, whereas the latter derives its meaning from imprecise and varied situations. Hirsch (1977) 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).

It is important for the purposes of the present study to examine further Hirsch's theoretical foundations. His concept of communicative efficiency, which is explained in terms of semantic intention, relates directly to the question of the effect of verb usage on the transmission of meaning in students' written language.

Hirsch made a strong case for the holistic study of discourse, proposing that individual sentences in isolation, possess semantic uncertainty. In defining meaning, as it relates to the whole discourse, he added that the relative readability of prose, which is synonymous with communicative efficiency, is determined by psychological principles. Hence, there is a distinct difference between the logic of thought and the logic of writing. Hirsch explained that, "the clarity of a piece of writing is not the same as the clarity of its thought" (p.88).

A crucial element of Hirsch's research is its advocacy of the importance of clauses which "are more directly perceived than their constituent individual words" (p.108). By definition, a clause must contain some form of predication, a verb. A clause, whether independent (that is, able to stand alone and possessing semantic closure) or dependent (likewise possessing semantic closure, but reliant upon another aspect of the sentence for syntactic completeness) is viewed as the "minimal unit of semantic determinacy" (p.109). Psychologically then, the mind is able to achieve semantic completeness or closure, only after it has perceived the relation between individual words and phrases within the clause.

Hirsch based his theory of the communicative efficiency of writing on the clause. The problem for the writer is to ensure that there is semantic integration in the clause; that is, it must contain within itself semantic closure. In addition to the necessity to maintain this semantic unity within the clause, there is the necessity to create effective links between clauses. Sequential verbal elements must be accommodated easily into nonsequential, abstract meaning. Therefore Hirsch suggests two methods by which this linking process can take place, both of which are intended to assist the limited capacity of short-term memory. The methods are called thematic tags and proleptic

devices.

Hirsch defines a thematic tag as "the visible part of the iceberg...the explicit verbal representation of many implicit meanings" (p.124). For example, the phrase "short-term memory" describes a "complex system of verbal functions" (p.124), which, once understood by the reader, need not be further elaborated every time it is mentioned. Hirsch justifies the importance of these tags on psychological grounds, "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).

Hirsch does, however, provide a caveat in the writing of clause sequences by suggesting that effective writing contains only a limited number of thematic tags. This limitation on tag use serves two purposes in the integrative functioning of clauses. As stated above, it reduces the strain on short-term memory by creating unity for the reader, and it also links successive clauses by repeating explicit tags.

The second method hypothesized by Hirsch to link clauses semantically is the use of proleptic devices, or what traditionally have been called transition words. Such

words as nevertheless, but, and, similarly, and thus aid semantic integration in two ways. Hirsch explains, "Such words function prospectively for the clause being processed and also retrospectively for the clauses already stored" (p.128).

The purpose of the current study is to determine how verb usage influences the overall effectiveness of students' written discourse. Even though Hirsch's thematic tags would occur to the greatest extent in the form of nouns, as suggested earlier, the verb is the major component of the clause. Hence, it would appear that the verb contributes to the semantic intention of the clause, by providing action or transition to the words within it.

The discussion of the psychological impact of thematic tags and proleptic devices is connected to the theoretical framework of this study. The clause is the basic unit of meaning within discourse, therefore the verb must, like its thematic tag and proleptic counterparts, play an integral role.

#### Summary of the Theoretical Framework

The purposes of the present study were the development of instrumentation, which measures verb usage in written

language, the validation of this instrumentation and the proposal of a verb theory that is applicable to the teaching of written language at the elementary level. In order to achieve these objectives, a supportive theoretical framework, derived from verb theory, semantic theory and written discourse theory has been established. The intention of this summary is to review the influential theoretical concepts.

The verb theorists (Joos, 1964; Palmer, 1974; Quirk et al., 1972) consistently acknowledge the vital and dynamic function of the verb system in our language. They reveal evidence of the acquisitional difficulties of mastering the English verb system. A written discourse theorist (Hirsch, 1977) also stresses the integral role the verb plays in the semantic intention of the clause. Thus, the present research of verb usage in students' written language gives valuable information to educators.

Both verb theory and semantic theory provide the bases for the development of objective and subjective methods of measuring verb usage. The creation of new instrumentation emanates from the verb theorists' delineation of verb form and verb function, the generative semanticists' (Norman et al., 1975) decomposition of the sentence, and the psycholinguists' (Evans, 1974; Hirsch, 1977; Paivio, 1971)

description of underlying cognitive processes.

In addition to the explanations of the psychological reasons for selecting specific verbs, semantic theory also outlines developmental patterns in verb usage. These observations reinforce the conclusions of the verb theorists, and indorse this study's hypothesis that verb usage variances may be evident between grade levels, and between high and low achievers in students' written language.

#### Empirical and Methodological Support

Empirical and methodological support for the current study's analysis of verb usage as it relates to the quality of written language is noticeably limited. The supportive research reported in this part of the literature review concentrates on language development (Loban, 1976), modes of discourse (Prater & Padia, 1983; Zamel, 1982), practical applications of verb theory (Richards, 1981), semantic theory (Norman et al., 1975; Paivio, 1971), and written language studies (Chinn, 1979). With the exception of Chinn's study, the other research is relatively peripheral to the present study. However, specific methodological

ideas assist the development of instrumentation, and isolated empirical evidence support the theoretical foundations of this study.

In Loban's (1976) longitudinal study of language, the discussion of verbs concentrated on oral use. However, some conclusions were made concerning verb usage in written language. Loban's observations of non-finite verb use in high and low language ability groups demonstrated that the high group, in direct contrast to the low group, made conscious efforts to employ non-finite verbs in writing. Loban states that non-finite verbs are "a way of simplifying, and they are forceful; they help us to express and to subordinate thought effectively and directly" (p.69).

Loban's emphasis on the use of non-finite verbs, the comparison of high and low language achievers, the concern for developmental language patterns, and the use of verb frequency give the current study empirical and methodological support. The distinction between finite and non-finite verbs is an integral part of an instrument which tabulates verb form and verb function. The verb usage variances between high and low achievers in students' written language is recorded. According to Loban's findings, the high group should use a greater number of non-finite verb forms. Questions are answered about

developmental trends evident in verb usage. Loban's implementation of the type-token ratio to determine verb frequency is a method utilized in this study.

Loban's research has prompted further studies in language. Specifically, he suggested:

The search for strategies in which proficient users of language handle verbs more effectively than those not proficient will need to continue. Aspects of effectiveness with verbs other than verb density and the use of non-finite verbs should be investigated. 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)

Thus, in the present study, the analysis of verb usage includes both syntactic and semantic aspects.

Prater and Padia (1983) examined the effects of three modes of discourse on elementary students' writing performance. Their theoretical base contended that, "Such factors as purpose and audience guide a writer in his/her organizational pattern, word choice, syntax, and even the length of the writing sample produced" (p.127). The results of this research demonstrated significant variation in performance in three distinct modes of discourse: expressive, explanatory and persuasive. The ego-centered

nature of expressive discourse produced the most effective writing of the three modes. Persuasive writing, on the other hand, was the most difficult, because it required the writer to appeal to a distant audience.

This emphasis on modes of discourse has implications for the current study because subjects wrote in one mode. The choice of fictional narration is appropriate, as it appears that such a mode is easier for students, thereby producing sufficient material to make judgments about verb use as it relates to the transmission of meaning in students' written language.

Perl, as reported in Zamel (1982), also found that writing was influenced by the choice of discourse mode, "Students wrote more and with greater fluency and satisfaction when their writing involved them personally, while they wrote with less facility when the writing was more objectified" (p.197).

In discussing E.S.L. students, Zamel contended that both the quantity and quality of writing improved when they were composing about topics of personal interest. Both Perl and Zamel generate further support for the choice of fictional narration as the discourse mode in this study.

Based on the theories of Quirk et al. (1972), Richards (1981) suggested that teachers should devise detailed instruction in the progressive aspect of verbs. Richards emphasized that the progressive is not a tense, but rather an aspect. He explains, "The basic meaning of the progressive is rather its depiction of an activity or event as incomplete, changing, temporary" (p.399). This viewpoint substantiates the dynamic/stative dichotomy of verbs. In the present study, the analysis of verb function is achieved through the differentiation of dynamic and stative verbs.

Citing numerous related studies and utilizing a variety of methodological approaches, Paivio (1971) empirically supported his hypothesized dual coding system of nonverbal imagery and verbal processes. His experimental strategies do not pertain to that of the current study; however, his conclusions do provide empirical support. The major strength of Paivio's two-process approach is:

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)

For the purposes of the current study, this approach stresses the importance of "knowledge of the world" which the subject brings to the writing situation. Existing knowledge and prior experiences may have an effect upon verb usage and upon the quality of writing.

Paivio was able to show that in a developmental sequence, imagery precedes verbal processes, and that eventually, "The two modes continue to develop concurrently (and interactively) once verbal skills have begun, and that both processes become increasingly capable of representing and manipulating information not present in the here-and-now as the individual matures" (p.437). Thus, in the present study, the older subjects should be more effective in their ability to compose in the fictional narrative mode of writing. The subjects' writing effectiveness is reflected partially in verb usage; that is, the concreteness or abstractness of the vocabulary selected. Paivio summarizes this point, "The grammars first learned by children will be "tied to" the syntax of concrete objects and events, presumably via the medium of imagery, and only later will more abstract grammars emerge" (p.438).

Focusing on verbs of possession, Gentner (in Norman et

al., 1975) conducted a series of experiments to show how these verbs are processed and stored. Using methods such as triads of sentences, two stories which differed in their metaphorical sense, and dolls, which could be manipulated to act out statements, Gentner researched the developmental nature of the basic sense of possession verbs and their metaphorical extensions. The central feature of all of Gentner's investigations was the expansion of verbs into contextual semantic components. In a modified form, this particular methodology is used in the present study to explore verb usage in written language.

Gentner also provides empirical evidence for verb usage variances between subjects of different ages. Gentner discovered 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). Thus, in the current study, the number of ellipses and errors, and the comparison of basic verbs to extended verbs may show developmental trends. Younger subjects may have more verb errors in their writing, and may use a greater number of basic verbs. Related to this probability, Gentner summarized her findings in the following statement: "The order of acquisition and the pattern of the errors were explainable in terms of

sequential acquisition of the semantic chunks" (p.246).

In two separate research studies, Chinn (1979) proposed that a correlation exists between verb choice and the overall effectiveness of students' compositions. Departing from methodology which primarily employed verb frequency, verb structure and types of verbs used, Chinn designed an innovative composition curriculum which concentrated on verb instruction. This lexical approach to improving a writer's effectiveness was used in the first study.

Utilizing a pretest - posttest experimental procedure, Chinn investigated the outcome of a verb instructional unit on the writing effectiveness of Grade Five subjects. She analyzed the relationship between verb choice and the general effectiveness of a composition as measured by a holistic marking scale. Specifically, Chinn examined aspects of verb choice (for example, the total number of forms of "to be" and "to have" used as main verbs), syntax (for example, the total number of words in a composition), and "details" (for example, the total number of nouns used in a composition) in each composition (p.6-7). The holistic evaluation technique, which was derived from a school district's Grade Twelve composition assessment program, was implemented by experienced teachers. Correlations were calculated between the holistic evaluation score and verb

usage. Chinn summarizes her findings:

The study yields two main conclusions, first, verb vocabulary can be improved by means of a verb-oriented composition course, and second, 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 study, which researched the relationship between judges' holistic marking scores and specific aspects of compositions; that is, verb choice and length of composition, used extant written language samples from senior high school students. Chinn 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). Thus, Chinn's original hypothesis was reinforced. Communicative effectiveness in written language is related to the quality of verb choice.

Chinn's research generates both methodological and empirical support for the present study. The correlation of holistic evaluation scores with different aspects of verb usage gives the researcher a more complete picture of a composition's quality. In particular, this study's use of a holistic marking device is reaffirmed by Chinn's application of one. The utilization of extant compositions in Chinn's

second study verifies the value of such a practice. And, despite the limitations of uncontrolled conditions, similar results were obtained from Chinn's non-experimental study as compared to her first study's experimental design. Thus, the current study's analysis of writing samples, which were gathered from a natural classroom situation, is justified.

The findings of Chinn's research studies indicate concrete empirical evidence for the relationship between verb usage and the effective transmission of meaning in written language. In both studies, there was a positive correlation between verb choice and the general impact of a composition upon a reader. Therefore, the present study's hypothesis that verb usage may be related to the quality of students' written language, is substantiated.

#### Summary of Chapter II

Chapter II has presented a review of the pertinent literature. It surveyed verb theories, semantic theories, and written discourse theories, in the belief that these areas of study offer a theoretical foundation for the formulation of a verb theory related to students' written language. This chapter also provided a summary of empirical and methodological support, with emphasis upon the areas of

language development, modes of discourse, practical application of verb theory and semantic theory, and studies of written language. Consequently, Chapter II provides the background for the design of the study, as well as the results, which are presented in Chapters III and IV, respectively.

## CHAPTER III

### THE DESIGN OF THE STUDY

#### Introduction

The conceptual framework for this study and the research questions were presented in Chapter I. A review of the pertinent literature in Chapter II provided the study with both theoretical background and methodological support. In Chapter III, the significant features of the research design are described. As stated in the abstract, the collaborative nature of this study has resulted in tables shared with Russell (1984).

#### The Subjects and Participants

This study's subjects were Grade Four and Grade Eight students registered in the Cowichan (#65) and Lake Cowichan (#66) School Districts, British Columbia, Canada. The grade selections were deemed suitable for three reasons: (a) students in Grade Four and Eight can produce fictional narrations of statistically sufficient length, (b) Grade

Four and Grade Eight may be considered the culmination of the primary and intermediate grades, and (c) the chosen grades corresponded to those included in a recent written language assessment program implemented by the British Columbia Ministry of Education. Furthermore, the selection of the Cowichan and Lake Cowichan School Districts as the sampling source was appropriate because the researcher was familiar with the regions.

The school districts registered the following grade totals as of June, 1983: (a) in the Cowichan District, there were 504 Grade Four students in 19 schools, and 650 Grade Eight students in four schools; and (b) in the Lake Cowichan District, there were 93 Grade Four students in four schools, and 97 Grade Eight students in one school. Descriptions of participating classrooms, subjects' I.Q. levels and socio-economic information were not included because of the exploratory and theoretical nature of the study.

A letter (see Appendix A), which stated guidelines and procedures for the collection of students' written compositions, was sent to each Grade Four and Grade Eight teacher in the Spring of 1983. Acceptable quantities of samples were thus gathered from cooperating classroom teachers.

Permission to proceed with this research study was granted by Cowichan School District's Superintendent on May 17, 1983, and by the Board of Trustees from the Lake Cowichan School District on May 9, 1983.

### The Task

The collection and submission of extant compositions by cooperating teachers allowed the researcher to verify the effectiveness of instrumentation developed for the assessment of verb usage in students' written language. Therefore, the task was non-experimental because the focus for the study was the exploration of assessment methods.

The task, which may be described as the gathering of extant samples of students' written language, was controlled by the researcher. During the collection process, teachers adhered to the following guidelines (see Appendix A):

1. Only those compositions written in the descriptive, factual narrative, fictional narrative, and/or expository modes of discourse were collected.

2. Samples were to have been written during the period from January, 1983 to June, 1983.

3. Compositions less than 300 words were not of satisfactory length. There was no maximum length stated.

4. Samples were labelled by grade (Four or Eight) and gender.

5. Compositions were further identified by written language ability; that is, composed by low, average or high achievers.

The original request for samples from the five modes of written discourse was modified to include only fictional narrations because: (a) theoretically, subjects were more capable of producing compositions of adequate length in the fictional narrative mode of discourse, and (b) the majority of collected samples were fictional narrations. In addition, the classification of samples by gender was eliminated, because gender was excluded as an independent variable in the analysis of data. Furthermore, the verification of instrument effectiveness was accomplished by using only those samples composed by low and high achievers in written language.

#### The Instrumentation

Instrumentation which assessed verb usage in students' written language consisted of four methods:

1. Verb frequency. A modified version of the type-token ratio was used to measure the frequency of verbs in a

passage. For the purposes of this study, the total number of different verb phrases (the types) was divided by thirty (the tokens; a result of selecting only the first 10, middle 10 and final 10 verbs from the first 300 words of each sample). By selecting verb phrases in this manner, the researcher standardized the assessment procedures measuring the variability of verbs. A data analysis form for verb frequency is presented in Table 1.

2. Verb maturity. Verb maturity, or the level of a verb's sophistication, was determined by contextually analyzing individual verbs in a passage according to the grade level indices for entries in The Living Word Vocabulary (Dale & O'Rourke, 1976). Consequently, each part of a verb phrase was identified as either a grade 4, 6, 8, 10, 12, 13 or 16 maturity level. A data analysis form for verb maturity is presented in Table 2.

3. Verb form and verb function. Utilizing the verb form and verb function table (see Table 3), verb phrases from each passage were assigned to the appropriate cell. Thus, verbs were contextually classified according to the dimensions of form and function. Ratios were calculated for individual cells, as well as for the sub-categories of finite, non-finite, errors, dynamic and stative. Because there were no examples of ellipses in students' written language, it was excluded as a dependent variable.

4. Verb intensity. Verb intensity, or the quality of



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		

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

the meaning conveyed by a verb, was measured by recording whether a verb had a basic or extended meaning. Using The Living Word Vocabulary (Dale & O'Rourke, 1976), verbs were contextually identified as either basic (the most common definition, "B") or extended (the less common associations, "E"). Verbs were also listed under the appropriate function category on the data analysis form (see Table 4).

For each measure of verb usage in students' written language, means were computed for low and high achievers in both Grades Four and Eight.

In order to determine the predictors of writing quality according to verb usage, samples were assessed by a panel of trained judges. A holistic rating scale (see Appendix D), devised specifically for the needs of this study, measured the quality, or effectiveness of a passage to transmit meaning.

#### Development of Objective Instrumentation

The assessment of verb form and verb function provided both a quantitative and qualitative measure of verb usage in written language. The process of developing this objective instrument involved the synthesis of the verb classification schemes of Joos (1964), Palmer (1974) and Quirk et al.

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		

(1972).

The form and function instrumentation initially included more aspects of verb form (see Table 5); that is, the finite categories of simple, complex (modal/periphrastic, perfective, progressive and passive), and combinations of complex; and the non-finite categories of simple (simple infinitive and simple participle), complex (complex infinitive and complex participle), and combinations of complex.

Modifications were introduced following the implementation of the initial verb form and function instrument. The cumbersome nature of recording verb form was condensed into four categories with no sub-categories (see Table 3): (a) finite, (b) non-finite, (c) errors, and (d) ellipses. Errors were identified as the non-conventional use of a verb in a written passage, either syntactically and/or contextually. Ellipses were defined as the intentional omission of a verb.

The classification of a verb function into dynamic (activity, process, bodily sensation, transitional event and momentary) and stative (inert perception and cognition, and relational) categories remained constant throughout the development of objective instrumentation. Quirk et al's. .

TABLE 5  
Initial Verb Form and Verb Function  
Interactive Chart

		DYNAMIC VERBS				STATIVE 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

(1972) scheme for identifying the functional aspects of verbs proved to be effective.

#### Development of Subjective Instrumentation

The development of subjective, or qualitative, instrumentation to assess verb usage in students' written language posed a challenging problem. Ideally, a subjective instrument should be sensitive to the processes evident during the writer's choice of verbs, and ultimately to the effectiveness of the passage to convey meaning. For the purposes of this study, a verb's intensity of meaning became a subjective method for assessing verb usage.

During its developing stage, the subjective instrument assumed three possible forms: (a) a test of word associations, (b) a list of connotative meanings scaled to particular verbs, and (c) a semantic differential. The unmanageable characteristics of the proposed methods, and their lack of semantic precision led the researcher to devise a different subjective instrument.

Based on the theoretical position of Gentner (in Norman et al., 1975), the intensity of a verb was hypothesized as a more accurate method for measuring intended meaning. Gentner's concept of meaning, derived from her research of

possession verbs, delineated the core or basic sense of a verb, and its metaphorical extensions. Therefore, a writer's use of a specific verb was indicative of the level of verbal processing the individual had attained. The less skilled writer would use more basic verbs, whereas the skilled writer would use metaphorical extensions.

In the present study, the assessment of verb intensity involved the identification of each verb in a passage as either basic (the verb's most common definition) or extended (the less common associations of a verb). This method paralleled Gentner's concept of core meanings and metaphorical extensions. The resultant analysis of the intensity of verbs was then related to the overall effectiveness of the composition, thereby determining whether verb intensity was a predictor of writing quality.

### The Pilot Study

The pilot study (see Appendix B) allowed the researcher to check the appropriateness of methods developed for assessing verb usage in students' written language. The dimensions of verb usage; that is, verb frequency, verb maturity, verb form, verb function and verb intensity were initially analyzed in the compositions of students, and of competent adult writers. The findings of the pilot study

indicated that the dimensions of verb usage were in fact measurable variables, but methodological changes were necessary in order for instrumentation to be more effective. Therefore, the researcher made the following adjustments to instrumentation:

1. The procedure for determining verb frequency was standardized by controlling the number of verbs selected from the first 300 words in a passage. The type-token ratio was calculated from a passage's first 10, middle 10 and last 10 verbs.

2. A verb's maturity was derived from the grade level index listed in The Living Word Vocabulary (Dale & O'Rourke, 1976), not the percentage index originally used in the pilot study.

3. The verb form and verb function interactive table was altered to include the form categories of errors, rather than missed verbs, and ellipses. The sub-categories for finite and non-finite verb forms were eliminated, thus simplifying the final version of the instrument.

4. The method for assessing verb intensity remained constant, however terminology was changed. Gentner's (in Norman et al., 1975) reference to core meanings and metaphorical extensions were replaced with the terms basic and extended meanings..

### The Validation Process

The development of methods for assessing verb usage in students' written language also incorporated the validation of instrumentation. Consequently, during the pilot study, the instruments measuring verb frequency, verb maturity and verb intensity were tested for their effectiveness to measure their intended purposes. The verb form and verb function interactive table (see Table 5) demanded a more rigorous validation. As a result, a validation process specifically for form and function (see Appendix C) was conducted. The researcher stated the guidelines for validation, and selected both the validation materials and the participants. The validation process yielded acceptable results, however the interactive table was modified to include the verb form categories of finite, non-finite, ellipses and errors (see Table 3).

### The Analysis of Data

The exploratory and theoretical goals of this study influenced the nature of the analysis of data. Descriptive statistics recorded the effectiveness of instrumentation developed for the assessment of verb frequency, verb maturity, verb form, verb function and verb intensity in

written language. In addition, inferential statistics established the significant predictors of writing quality according to the dimensions of verb usage, and yielded the variances in verb usage between grade and between ability.

The initial analysis of data consisted of the following procedures:

1. A total of 80 fictional narrations were selected from the corpus of samples originally collected by classroom teachers. Four distinct groups of 20 compositions each were then formed: (a) Grade Four, low ability; (b) Grade Four, high ability; (c) Grade Eight, low ability; and (d) Grade Eight, high ability.

2. The first 300 words in each passage were counted, thus controlling the length of samples.

3. The verbs in a passage were identified. Each word in a verb phrase was underlined separately. The total number of verbs per passage was recorded.

4. Verb frequency was determined by first listing the first 10, middle 10 and final 10 verbs on the appropriate form (see Table 1). The type-token ratio was then computed.

5. Verb maturity was calculated by first recording the grade level index (from The Living Word Vocabulary, Dale & O'Rourke, 1976) above each underlined verb in a passage. Then, the total number of verbs for each grade level was divided by the total number of verbs in the passage (see

Table 2).

6. Verb form and verb function for a passage was measured by first locating verb phrases in the appropriate cell on the form and function table (see Table 3). A ratio was computed for each cell, and for the main categories of finite, non-finite, errors, dynamic and stative.

7. Verb intensity was assessed by first listing verb phrases under the appropriate heading on the data analysis form (see Table 4). Using The Living Word Vocabulary (Dale & O'Rourke, 1976) as a guide, each verb was labelled as either basic or extended meaning. Finally, ratios were calculated for both aspects of verb intensity.

The initial analysis of verb maturity, verb form, verb function and verb intensity occurred within the context of a passage. For example, determining the maturity index for a verb was only possible when the verb was considered within the passage; not in isolation.

In order to establish the significant predictors of writing quality according to verb usage, trained judges recorded an overall quality score for each sample by using a holistic rating device (see Appendix D). Inter-rater reliability correlations, generated from the Faculty of Education, University of Victoria's SPSS-X program, indicated a moderate to high agreement between judges:

(a) Judge 1 and Judge 2 (0.7291), (b) Judge 1 and Judge 3 (0.6739), and (c) Judge 2 and Judge 3 (0.7020). Writing quality was then utilized as the criterion variable in a subsequent stepwise multiple linear regression analysis.

### Statistical Analysis

Following the coding of this study's variables, the raw data from the analysis forms was transferred to General Purpose - NCS - Answer Sheets. This information was then keypunched into the SPSS-X program.

F-ratios and levels of significance for the dependent variables; that is, verb frequency, verb maturity, verb form (finite, non-finite, errors), verb function (dynamic, stative), and verb intensity (basic, extended), were produced from a multivariate analysis of variance program (MANOVA). The independent variables were grade (Four and Eight) and ability (low and high achievers in written language). In addition, levels of significance between cells were derived from Scheffe's test.

In order to determine the significant predictors of writing quality according to verb usage, a stepwise multiple linear regression analysis was generated. The predictor

variables were the five dimensions of verb usage; that is, verb frequency, verb maturity, verb form (finite, non-finite, errors), verb function (dynamic, stative), and verb intensity (basic, extended). The criterion variable was writing quality. Grade Four and Grade Eight were analyzed separately on the program.

The results for MANOVA and for the stepwise multiple linear regression analysis are presented in Chapter IV. The level of significance accepted for the statistical tests was  $p < .05$ .

## CHAPTER IV

### ANALYSIS OF THE DATA

#### Introduction

Chapter IV presents the analysis of the data resulting from the research design outlined in Chapter III. The findings are reported in response to the research questions stated in Chapter I.

#### Statistical Analysis of Data

In order to answer the research questions, the SPSS-X program from the University of Victoria's Faculty of Education generated means, standard deviations, multivariate analyses of variance, Scheffe tests and stepwise multiple linear regressions. For all statistical tests, the level of significance accepted was  $p < .05$ .

## The Findings

### Question 1.

Can instrumentation, which measures verb usage in students' written language, be developed from extant verb theory, semantic theory and written discourse theory?

The answer to this general research question is inherent in the significant results of the following specific research questions. Therefore, effective instrumentation can be developed from extant verb theory and semantic theory. In particular, verb form and verb function instrumentation is based upon verb theory, and verb maturity and verb intensity instrumentation is derived from semantic theory. Written discourse theory is not an integral part of the development of instrumentation. However, it substantiates the focus of the study, the verb, as well as the selection of fictional narration as an appropriate mode of discourse for student writing.

### Question 2.

Are there relationships between verb frequency, verb maturity, verb form (finite, non-finite, errors), verb function (dynamic, stative), and verb intensity (basic,

extended) and: (a) the grade of students (Four, Eight), (b) the written language ability of students (low, high), and (c) the quality of students' written language (as measured by a holistic rating device)?

Due to the complexity of this question, the results are presented in one corpus by statistical test. A descriptive commentary follows individual tables. Finally, the responses to Question 2 are provided through a discussion of the significant dependent variables.

#### MANOVA

The collected data, which included Grade Eight and Grade Twelve from Russell's (1984) study, was submitted for analysis in total. Therefore, the multivariate analysis of variance tables are based upon Grades Four, Eight and Twelve. The resultant Scheffe tests isolate significant differences in means at Grade Four and Eight, for the following dependent variables: verb frequency, verb form (non finite), and verb intensity (extended).

Table 6 presents a multivariate analysis of variance for grade and ability as the independent variables, and verb frequency as the dependent variable. Cell means, standard deviations and a Scheffe multiple comparison of means are

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	

also provided.

Table 7 presents a multivariate analysis of variance for grade and ability as the independent variables, and verb form (non-finite) as the dependent variable. Cell means, standard deviations, a Scheffe test of comparison of means and a Scheffe multiple comparison of means are also provided.

Table 8 presents a multivariate analysis of variance for grade and ability as the independent variables, and verb form (errors) as the dependent variable. Cell means and standard deviations are also provided.

Table 9 presents a multivariate analysis of variance for grade and ability as the independent variables, and verb intensity (extended) as the dependent variable. Cell means, standard deviations and a Scheffe test of comparison of means are also provided.

#### Stepwise Multiple Linear Regression

The stepwise multiple linear regression analyses indicate, in descending order, the significant predictors of quality in written language according to verb usage. The analyses are organized by grade; that is, Grade Four and

TABLE 7

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

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

MANOVA: Mean Verb Intensity (Extended)  
in Written Language

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	

## Grade Eight:

### 1. Grade Four

Table 10 presents means, standard deviations, a correlation matrix for all dependent variables and quality combined for the three judges, and a stepwise multiple linear regression for verb function (stative), verb form (finite), and verb form (errors).

### 2. Grade Eight

Table 11 presents means, standard deviations, a correlation matrix for all dependent variables and quality combined for the three judges, and a stepwise multiple linear regression for verb frequency.

To answer Question 2, which investigates the relationships between the dependent variables (verb frequency, verb maturity, verb form, verb function, and verb intensity) and the independent variables (grade, ability and quality), tables and brief commentaries have been presented. Responses to the question are arranged according to the significant dependent variables:

#### 1. Verb Frequency

From Table 6, the MANOVA indicates that there are statistically significant differences in the mean number of verbs used in written language between grade ( $p < .042$ ) and

TABLE 10

Stepwise Multiple Linear Regression: Grade Four  
Written Language

Cell Means and Standard Deviations

<u>Variable</u>	<u>N</u>	<u>X</u>	<u>S.D.</u>
Verb Frequency	40	.82	.09
Verb Maturity	40	.93	.07
Verb Intensity (Basic)	40	.88	.08
Verb Intensity (Extended)	36	.14	.07
Verb Form (Finite)	40	.84	.10
Verb Form (Non-finite)	36	.14	.06
Verb Form (Errors)	21	.07	.09
Verb Function (Dynamic)	39	.77	.10
Verb Function (Stative)	39	.23	.10
Quality Combined	39	16.15	5.08

Correlation Matrix

	V01	V02	V03	V04	V05	V06	V07	V08	V09	JTOT
V01 Verb Frequency										
V02 Verb Maturity	-.024									
V03 Verb Intensity (Basic)	-.070	-.101								
V04 Verb Intensity (Extended)	-.125	-.024	-1.000							
V05 Verb Form (Finite)	.418	.074	-.001	.162						
V06 Verb Form (Non-finite)	-.027	.081	-.138	.177	-.554					
V07 Verb Form (Errors)	-.564	-.507	.358	-.390	-.785	-.147				
V08 Verb Function (Dynamic)	.176	.184	-.114	.249	.083	.151	.092			
V09 Verb Function (Stative)	-.176	-.184	.114	-.249	-.083	-.151	-.092	-1.000		
JTOT Quality Combined	.223	-.132	-.162	-.025	.105	-.124	-.499	-.475	.475	

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 Function (Stative)	.23	.47	3.28	37	2.50	10.77	.0023
Verb Form (Finite)	.46	-.77	-2.61	17	15.46	7.33	.0051
Verb Form (Errors)	.25	-.50	-2.44	18	20.43	5.96	.0252

TABLE 11

Stepwise Multiple Linear Regression: Grade Eight  
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

between ability ( $p < .000$ ). Furthermore, the Scheffe test shows that significant differences occur between Grade Four, low ability and Grade Eight, high ability ( $p < .0109$ ), and Grade Eight, low ability, and Grade Eight, high ability ( $p < .0001$ ).

From Table 11, the stepwise multiple linear regression indicates that, at the Grade Eight level, verb frequency is a significant predictor of quality in written language ( $p < .0009$ ).

## 2. Verb Form

From Table 10, the stepwise multiple linear regression indicates that, at the Grade Four level verb form (finite) is a significant predictor of quality in written language ( $p < .0051$ ).

From Table 7, the MANOVA indicates that there are statistically significant differences in mean verb form (non-finite) used in written language between grade ( $p < .001$ ) and between ability ( $p < .001$ ). However, the Scheffe tests do not show significant differences in means.

From Table 8, the MANOVA indicates that there is a statistically significant difference in mean verb form

(errors) used in written language between ability ( $p < .02$ ). There was no Scheffe test to support this significant difference in means.

From Table 10, the stepwise multiple linear regression indicates that, at the Grade Four level verb form (errors) is a significant predictor of quality in written language ( $p < .0252$ ).

### 3. Verb Function

From Table 10, the stepwise multiple linear regression indicates that, at the Grade Four level, verb function (stative) is a significant predictor of quality in written language ( $p < .0023$ ).

### 4. Verb Intensity

From Table 9, the MANOVA indicates that there is a statistically significant difference in mean verb intensity (extended) used in written language between grades ( $p < .000$ ). However, the Scheffe test does not show significant differences in means.

Question 3.

Can extant verb theory, semantic theory and written discourse theory be synthesized into a theory of verb usage that is applicable to the teaching of written composition?

This question extracts information from diverse fields, which have contributed to the theoretical framework of the current study. Since a theory of verb usage applicable to the teaching of written language must be developed by joining extant theory with specific results of this study, the matter of synthesis is considered a part of the "Implications for Instruction" section of Chapter V.

#### Summary of Findings

Chapter IV has reported the relationships between the dependent variables (verb frequency, verb maturity, verb form, verb function, and verb intensity) and the independent variables (grade and ability) through a multivariate analysis of variance. In addition, a stepwise multiple linear regression analysis indicated the significant predictors of quality in students' written language according to verb usage. The following statements summarize these findings:

## 1. Verb Frequency

1.1. Between Grades Four and Eight, there is a significant difference in the mean number of verbs used in written language.

1.2. Between low and high ability students in Grades Four and Eight, there is a significant difference in the mean number of verbs used in written language.

1.3. The significant differences in the mean number of verbs used in written language occur between Grade Four, low ability and Grade Eight, high ability, and between Grade Eight, low ability and Grade Eight, high ability.

1.4. At the Grade Eight level, verb frequency is a significant predictor of quality in written language.

## 2. Verb Form

2.1. At the Grade Four level, verb form (finite) is a significant predictor of quality in written language.

2.2. Between Grades Four and Eight, there is a significant difference in mean verb form (non-finite) used in written language.

2.3. Between low and high ability students in Grades Four and Eight, there is a significant difference in mean verb form (non-finite) used in written language.

2.4. Between low and high ability students in Grades Four and Eight, there is a significant difference in mean verb form (errors) used in written language.

2.5. At the Grade Four level, verb form (errors) is a significant predictor of quality in written language.

### 3. Verb Function

3.1. At the Grade Four level, verb function (stative) is a significant predictor of quality in written language.

### 4. Verb Intensity

4.1. Between Grades Four and Eight, there is a significant difference in mean verb intensity (extended) used in written language.

At Grades Four and Eight, the following dependent variables produced no significant results:

1. Verb maturity
2. Verb function (dynamic)
3. Verb intensity (basic).

Chapter V discusses the results, and their implications for research and instruction. Furthermore, it presents a theory of verb usage that is applicable to the teaching of written composition.

## CHAPTER V

### DISCUSSION, CONCLUSIONS AND IMPLICATIONS

#### Introduction

Chapter V presents a discussion of the similarities between the significant dependent variables and the findings of extant research. In addition, the effectiveness of this study's instrumentation is discussed in relation to the theoretical framework outlined in Chapter II. The conclusions, the implications for further research and the implications for instruction conclude Chapter V.

#### Discussion

##### Significant Dependent Variables

The findings of this study's significant dependent variables are supported by the empirical evidence presented in Chapter II.

Employing a type-token ratio to assess verb frequency,

Loban (1976) noted a developmental trend in the number of verbs used in students' written language. The older subjects utilized a greater variety of verbs in their compositions. Similarly, in the present study, verb frequency revealed significant differences between ability, as well as between grade.

Loban (1976) also discovered that high ability students used more non-finite verbs than low ability students. This concurs with the current study's findings that low and high achievers in written language at Grades Four and Eight demonstrate significant differences in their use of non-finite verb forms. The high ability student selected non-finite verbs more frequently for use in their compositions.

In Gentner's (in Norman et al., 1975) research of possessive verbs, the developmental trend evident in error patterns was explainable in terms of the sequential acquisition of semantic chunks. Likewise, in the current study, there were significant differences in the number of errors found in the compositions of low and high ability students in Grades Four and Eight. The non-conventional use of verbs was less apparent in the written language of high ability students, and of students in Grade Eight.

Gentner's investigations also yielded a developmental

trend in the use of basic meanings and metaphorical extensions. In a similar manner, the analysis of verb intensity, extended (synonymous with Gentner's metaphorical extensions), in the present study, acknowledged a significant difference between Grades Four and Eight. Grade Eight subjects utilized a higher degree of extended verb meanings in their compositions.

Chinn's (1979) analysis of verb usage in students' written language showed a positive correlation between verb choice and writing quality. This verifies the current study's findings that verb choice, represented by the dependent variables of verb frequency, verb form (finite), verb form (errors) and verb function (stative), were significant predictors of writing quality.

#### Instrumentation

The development of instrumentation that assessed verb form and verb function in written language was a primary goal of the present study. The resultant instrument yielded significant findings in verb form (finite, non-finite, errors) and verb function (stative). Specifically, verb form (finite) was a significant predictor of quality in written language at Grade Four. There were significant differences in mean verb form (non-finite) used in written

language between grade (Four and Eight) and between ability (low and high). Verb form (errors) produced significant differences between ability, and like verb form (finite) and verb function (stative), proved to be a significant predictor of writing quality at Grade Four. Therefore, the significant results, computed from the analysis of verb form and verb function, emphasized the effectiveness of instrumentation.

The verb form and verb function instrumentation was based upon the ideas of several verb theorists (Joos, 1964; Palmer, 1974; Quirk et al., 1972). Joos (1964) believed that in the English verb system, a finite list of its parts and relations existed. Consequently, he delineated verbs into the categories of finite and non-finite, with related subdivisions. Palmer's (1974) scheme for classifying verbs paralleled Joos', but also included a functional aspect consisting of the categories of voice, progressivity, non-progressivity, tense, modal auxiliaries, marginal verbs and compound verbs. This analysis of verbs did not adequately describe their functional or semantic characteristics because the categories were only extensions of a syntactic classification. However, Palmer and Joos' finite/non-finite dichotomy provided the present study with an initial method for assessing verb form.

An effective method for analyzing verb function was suggested by Quirk et al's (1972) decomposition of verbs into dynamic and stative functions. In their contextual analysis of verb function, the dynamic sub-categories of activity, process, bodily sensation, transitional event and momentary; and the stative sub-categories of inert perception and cognition, and relational were identified. By preserving the finite/non-finite dimensions of verb form, and adding to it, Quirk et al's scheme for analyzing verb function, a table was devised which effectively recorded verb usage in students' written language.

Instrumentation developed for assessing another semantic aspect of verb usage; that is, verb intensity, had limited success. The number of extended verbs used in written language was significantly different between grade. Specifically, Grade Eight writers used more extended verbs than Grade Four writers. For the purposes of this study, the concept of verb intensity evolved from the ideas of a semantic theorist.

Gentner (in Norman et al., 1975) hypothesized that the meaning of a verb, which may be identified as a basic sense or a metaphorical extension, is stored as an interrelated chunk. Over time, new chunks of meaning are added to the existing ones, thereby expanding an individual's capacity to

use verbs in unique ways. Therefore, as writers' become more skilled, these interrelated webs of meaning assume greater sophistication.

In the current study, Gentner's concept of basic meanings and metaphorical extensions was modified, by decomposing the verbs in written language into basic and extended meanings. The intensity of meaning was determined from the contextual analysis of verbs in a composition. The non-significant results for ability and verb intensity may be partially due to the complexity of this assessment method. Theoretically, the decomposition of verbs did not relate the individual components; that is, basic and extended meanings, in a simple enough manner to the total system - verb intensity.

The method for measuring verb maturity also yielded non-significant results for the independent variables (grade and ability). This may be partially explained in the dated, and arbitrary nature of The Living Word Vocabulary (Dale & O'Rourke, 1976), the dictionary used to determine the maturity of a verb. However, the analysis of verb maturity is theoretically substantiated by Norman et al. (1975), Evans (1981) and Paivio (1971).

Norman et al. (1975) proposed the existence of a

structural network in human memory, consisting of interconnected meaning relations. The network, which guides both the initiation of new information, and the interpretation of existing information, changes as the individual matures. This is similar to Evans' (1981) concept of a multi-dimensional semantic reservoir. As new features, or dimensions, of words are accumulated, the writer's capacity for mature usage increases. Departing from Norman et al.'s and Evans' positions, Paivio's (1971) dual coding system explained meaning in terms of non-verbal and verbal processes. The abstract nature of verbal processing is more readily available to the mature individual.

### Summary

The instrumentation developed for assessing verb usage in written language is effective in varying degrees. Both the theoretical basis for measuring verb intensity, and the method for analyzing verb maturity, need revision. In summary, the significant findings are indicative of effective instrumentation.

### . Conclusions

The conclusions are a consequence of the findings

presented in Chapter IV, as well as the discussion of the significant dependent variables and of the instrumentation.

1. The variety of verbs used in written language between Grade Four and Grade Eight students; and between low and high ability students in composition shows a developmental trend. Specifically, the differences occur between Grade Four, low ability and Grade Eight, high ability; and between Grade Eight, low ability and Grade Eight, high ability.

2. The variety of verbs used in students' written language is a predictor of writing quality at Grade Eight. Therefore, from this study's results, it appears that communicative effectiveness in written language is, in part, affected by verb frequency.

3. The use of non-finite verb forms in written language between Grade Four and Grade Eight students; and between low and high ability students in composition shows a developmental trend. The older students use more non-finite verb forms. The lower ability students in both grades use less non-finite verb forms.

4. The number of errors in written language between low and high ability students in composition, at Grades Four and Eight, shows a developmental trend. The more skilled writers in both grades, make fewer errors in their compositions.

5. The number of verb errors in students' written

language is a predictor of writing quality at Grade Four. Therefore, from this study's results, it appears that communicative effectiveness is, in part, affected by the number of verb errors.

6. The use of finite verb forms in students' written language is a predictor of writing quality at Grade Four. Therefore, from this study's results, it appears that communicative effectiveness is, in part, affected by the use of finite verb forms.

7. The use of stative verbs in students' written language is a predictor of writing quality at Grade Four. Therefore, from this study's results, it appears that communicative effectiveness is, in part, affected by the use of stative verbs.

8. The use of extended verbs in written language between Grade Four and Grade Eight students shows a developmental trend. The older students use more extended verbs.

9. At Grade Four and Grade Eight, the level of verb maturity, and the use of dynamic and base verbs did not affect the quality of students' written language, nor did they produce developmental trends between grade or between ability.

10. The significant results for the dependent variables of verb frequency, verb form (finite, non-finite, errors), verb function (stative) and verb intensity (extended)

indicate that the methods developed for assessing verb usage in written language were effective in varying degrees.

### Implications for Further Research

The implications for further research are suggested by the conclusions for this study.

1. Future research may focus on specific aspects during the analysis of verb usage in students' written language. The exploratory nature of this study imposed a broad scope for the development of instrumentation.

2. The refinement of methods for assessing verb usage in written language is necessary if further investigation occurs. Instrumentation for this study was effective in varying degrees.

3. The application of an experimental design may support or refute the conclusions for this study. For example, the sampling procedure consisted of the collection of compositions from natural classroom settings.

4. Future investigations may expand the analysis of verb usage to the other modes of written discourse. For the purposes of this study, only fictional narrations were analyzed.

5. Further research could also extend the assessment of verb usage to other grade levels, rather than limiting

the investigation to the written language of Grades Four and Eight.

6. The analysis of verb usage in oral language may yield significant empirical findings that support this study's results for written language.

7. Gender, as an independent variable, may be a critical dimension in the analysis of verb usage in students' written language.

8. The methods for analyzing verb maturity and verb intensity require adjustments because The Living Word Vocabulary (Dale & O'Rourke, 1976) had limitations. A less dated and arbitrary lexicon of common English usage is needed.

9. Furthermore, the method for analyzing verb intensity was theoretically too complex. A more effective semantic decomposition may be achieved by using Paivio's (1971) concrete-abstract continuum.

10. Examples of ellipses in students' written language were non-existent. Therefore, future investigators may want to determine the significance of partial ellipses, a verb form occurring regularly in students' compositions.

11. Similarly, future research into idiomatic expressions containing verbs, may produce important findings because they are frequently used in students' written language.

## Implications for Instruction

The research into methods for assessing verb usage in students' written language has greater value if its findings have practical implications for the classroom teacher. The actual methods for analyzing verb usage would rarely be used in the classroom. However, by surveying extant research, and evaluating this study's results, a theory of verb usage applicable to the teaching of written language in the elementary grades is proposed.

The theory of verb usage consists of four dimensions:

1. Knowledge of the verb system. In order to make the verb an integral part of the language arts curriculum, the classroom teacher should be aware of the complexity of the verb system itself. Different levels of interpretation are offered by each part of the system; that is, form, function and intensity. Therefore, a renewed perception of the verb system as a complex feature of English grammar, would give the classroom teacher the freedom to improve instruction. At the elementary level, it is not necessary for students to be directly taught the verb system. However, the knowledgeable teacher could inductively introduce the concepts of form, function and intensity.

2. Students' prior experiences. Students' prior experiences include both their knowledge of the world, and

their established linguistic patterns. As an individual progresses through the educational system, the existing knowledge and linguistic patterns are expanded. This expansion, when referring specifically to verbs, involves the addition of new dimensions of meaning to the existing linguistic network.

3. Acquisitional nature of verb learning. The developmental trends evident in the variety of verbs used, in the increased use of non-finite verbs, in the number of errors and in the use of extended verbs in students' written language support the conclusions of extant research. Therefore, verb learning may be considered an acquisitional language process. This is especially important to the elementary classroom teacher because the nature of verb learning affects the nature of instructional strategies.

4. Development of a verb vocabulary. By developing a verb vocabulary within the context of written language, the classroom teacher may gradually improve the quality of students' compositions. Vocabulary development, specifically for verbs, may be created from the teacher's knowledge of the verb system, from awareness of students' prior experiences, and from the recognition of the acquisitional nature of verb learning.

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APPENDIX A

LETTER TO SCHOOL DISTRICT TEACHERS

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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

THE 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 Four high ability student, one Grade Four low ability student, one Grade Eight high ability student, one Grade Eight 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 B-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 B-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)
		.56 (13)	
Low	.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 B-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 B-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 B-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 Eight 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 Four 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 verbs in favor of 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 C**

**THE VALIDATION PROCESS**

### The 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 1

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 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



VITA

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Title of Thesis

The Development of Methods for Assessing Verb Usage in  
Written Language at Grades Four and Eight

Author



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