Text linguistics can make significant theoretical and practical contributions for writing teachers. Borrowing from classical rhetoric and cognitive psychology, text linguists investigate defining text, creating text grammars, and identifying communicative aspects of text. To show how these investigations are useful for writing teachers, this report presents two studies that apply two basic issues in text linguistics--Grice's Cooperative Principle and schema theory--to common situations in writing classes. Text linguistics offers ideas on how to integrate the product/text into the process approaches prevalent in composition research and practice, and text linguistics seeks to create paradigms and identify rules about well-formed texts that teachers can appreciate as theoretical constructs and use as teaching aids. Speech act theory extends the ability of writing and communication instructors to analyze and evaluate communication situations and aids the discovery of where, how, and what the language used in instructional comments communicates. Schema theory is an analysis of text processing created jointly by cognitive psychologists and text linguists. The findings of a study involving a four-part writing task, assigned to an experimental class and scored by a panel of writing teachers, indicate that schema transfer from a narrative passage can be used as an effective activity for English as a second language (ESL) students to learn how underlying propositions in a text form an important part of that text's coherence. Further studies based on textual concerns with schema-coherence relationships should be undertaken in all phases of writing research--from native speakers' revision processes to ESL writing. Appendices include: a nine-page list of references; a sample of an English 101 student essay, a student rating sheet, and two sample essays from the schema transfer experiment.
TEXT LINGUISTICS AND COMPOSITION: RESEARCH AND PRACTICAL CONNECTIONS

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Lynn Beene

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."
Many writing teachers assume text linguistics has little relationship to writing theory or has few practical applications. Text linguistics is a complex, interdisciplinary study that is poorly understood because it is unfamiliar: few writing teachers have taken the time to study the present work in text linguistics, and few text linguists have popularized their theories. Nevertheless, the descriptions provided by text linguistics extend rhetorical study and introduce new concepts to the study of the process of communication, making the discipline one of potential interest to writing teachers.

This report examines what text linguistics is, what it can contribute to composition theory, and how insights from text linguistic studies can be applied. Two specific applications of theories from text linguistics are presented. The first investigation uses theories developed by H. Paul Grice to analyze instructors' comments on a student's essay and to correlate this analysis with freshman writers' evaluation of those comments. The analysis indicates that instructors can use Grice's CP Maxims to form a three-part theme/comment structure that they can manipulate to carry explicit and implicit revision strategies to students.

The investigation applies schema theory, specifically a narrative schema, as a means to teach ESL students how to write effective expository prose. Practical applications of schema theory seem to help students grasp rhetorical principles more quickly and use templates for organization patterns more efficiently.

KEY WORDS: composition theory, dialogue, English as a Second Language, Gricean Principles, schema theory, sentence-grammars/text grammars, text, text linguistics.
Most teachers assume that text linguistics studies any unit of language larger than a sentence. While largely correct, this assumption leads most writing teachers to view text linguistics as either a reformation of traditional studies in rhetoric, a type of linguistic jargon used in studies of multi-word units, or a diverse, disorganized study, not identifiable with any specific theory or methodology. Given these sorts of definitions, it's not surprising that many writing teachers believe text linguistics is too repetitive to be interesting, too broad to be usable, too theoretically remote to be understood, or too difficult to be pedagogically useful. Furthermore, text linguists have contributed to this obscurity by failing to popularize their assumptions. Although there is some merit to these complaints, a survey of text linguistics shows it can make significant theoretical and practical contributions for writing teachers.

This brief presentation attempts to explain what text linguistics is and to apply some of text linguistics' basic concepts. It discusses the controversy over the definition of text, outlines some of the connections text linguistics has with rhetoric and linguistics (disciplines familiar to most writing teachers), and indicates some of the directions that teachers interested in text linguistics can pursue. These basic definitions and directions clearly show a symbiotic relationship between writing theories and text linguistics.

Text linguistics adds new perspectives to the disciplines writing teachers already know; its proposed text grammars increase
our knowledge of language structure; and its generalizations about how texts are created and used are potentially powerful tools for improving writing instruction. To indicate how writing teachers can use text theories, this report presents two studies that apply two basic issues in text linguistics, Grice's Cooperative Principle and schema theory, to common situations in writing classes -- writing comments on students' essays and creating writing exercises to teach expository writing. The report suggests that writing teachers can benefit from text linguists' insights and that text linguists can benefit from writing teachers' ability to come to terms with the essential objects of inquiry in text linguistics.

BACKGROUND

Text linguistics' main theorists are Europeans who approach the study of language with a different set of concerns than American researchers but who want to incorporate the rigorous standards that American linguists use in their theories. Basically, text linguists have taken concepts from rhetoric, linguistics, and cognitive psychology and tried to blend them to identify what an oral or written text is, what the basic structural elements of texts are, and how text is created and understood by native speakers of a language.

Connections to rhetoric, linguistics, and cognitive psychology

From classical rhetoric, text linguistics has borrowed an interest in the primary elements used in spoken or written text: the content, structure, and arrangement of ideas. This interest is often discussed in text linguistics as propositional structure or the relationships among micro- and macro-structures. Like
modern rhetoric, text linguistics investigates the diverse processes by which speakers and writers use language to influence human behavior, stresses how effective texts exploit specific linguistic patterns, and tries to define the communicative potential of texts (van Dijk, 1972).

We see the connection between rhetoric and text linguistics when we compare text studies such as Grice's analysis of discourse with traditional rhetorical categories. Grice's Cooperative Principle is "a rough general principle which participants in a speech exchange will be expected to observe for the exchange to be communicative" (Grice, 1975, p. 41). According to Grice, communicative exchanges are ideally characterized by four maxims, the broad predecessors of text linguistics' concepts of intentionality and acceptability:

- speakers should give appropriate amounts of information (quality/sufficiency),
- appropriately supported or truthful (quality/sincerity),
- appropriately focused (relation/relevance), and
- appropriately direct (manner/appropriateness).

Because Grice assumes that participants in any exchange want that text to be communicative, he sees violations of these principles as intentional flouts.

Grice's explanation of discourse at first seems to rely too heavily on linguistics and philosophy of language. However, as Table 1 illustrates, the ideas Grice's explores are familiar to writing teachers from their studies in rhetoric.

Insert Table 1 About Here
<table>
<thead>
<tr>
<th>GRICE'S CP MAXIMS</th>
<th>RHETORICAL TERMS</th>
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<tbody>
<tr>
<td><strong>1. Quality:</strong> Is the amount of information appropriate for the purpose of the discourse?</td>
<td>Development</td>
</tr>
<tr>
<td><strong>2. Quality:</strong> Does the text say what the writer believes to be truthful?</td>
<td>Sensible Content</td>
</tr>
<tr>
<td><strong>3. Relation:</strong></td>
<td>Ideas</td>
</tr>
<tr>
<td>A. Does the focus adequately relate to the purpose of the discourse?</td>
<td>Sensible</td>
</tr>
<tr>
<td>B. Are the features/strategies used for what is said adequate ones?</td>
<td></td>
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<tr>
<td><strong>4. Manner:</strong> Does the text</td>
<td>Focus</td>
</tr>
<tr>
<td>A. avoid obscurity?</td>
<td>Interesting</td>
</tr>
<tr>
<td>B. avoid ambiguity?</td>
<td>Organization</td>
</tr>
<tr>
<td>C. Is the text brief?</td>
<td>Rhetoric</td>
</tr>
<tr>
<td>D. Is the text orderly?</td>
<td>Coherence</td>
</tr>
<tr>
<td>E. Is the social dialect appropriate to the context?</td>
<td>Mechanics</td>
</tr>
<tr>
<td></td>
<td>Cohesion</td>
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<td>Style</td>
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<td>Interesting</td>
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Rhetoric is not text linguistics' only contributor. From descriptive linguistics text linguistics takes concepts such as native speaker competence, generative rules, choice (central to any stylistics' study), register, and pragmatic appropriateness. It seeks to integrate these concepts into a description of text structure that satisfies linguistics' criteria of both descriptive and explanatory adequacy. In the main, linguistic descriptions of text have taken the form of text grammars, structures that try to identify the dynamics of well-formed text. However, in addition to structural issues, text linguistics incorporates other linguistic points of view (e.g., semantic, pragmatic, sociolinguistic, and psycholinguistic) in an attempt to define and describe text.

From cognitive psychology, text linguistics borrows ideas about the particular relations between a text and its participants (i.e., text producers and receivers) to define concepts such as cohesion and coherence. Text linguists argue that cohesion and coherence, mutually dependent aspects of text, must be defined from different perspectives. **Textual cohesion** is the interrelatedness of linguistic elements within a text. However, **textual coherence** arises from the interaction among text participants' cognitive processes, knowledge of their language, knowledge of the world, and the text. To explain this complex interaction, text linguists have applied insights from cognitive psychology and artificial intelligence (a discipline that itself has borrowed heavily from linguistics and cognitive psychology). For example, schema theory is one of the several theoretical views of text processing to emerge from mutual interests of text linguists and cognitive psychologists. As Carrell describes it,
Schema theory maintains that processing a text is an interactive process between the text and the prior background knowledge or memory schemata of the listener or reader [i.e., the participants]. In the schema-theoretical view of text processing, what is important is not only the text, its structure and content, but what the reader or listener does with the text. (Carrell, 1982, p. 482).

Schema theory offers a context for a variety of issues about text (e.g., research in artificial intelligence, sophisticated definitions of text, and explanations of concepts such as coherence).

The most obvious place to see how this blend from rhetoric, descriptive linguistics, and cognitive psychology has influenced text linguistics is to examine three of the central issues text linguists investigate: defining text, creating text grammars, and identifying communicative aspects of text. These representative issues illustrate both the difficulty text linguistics presents and its interdisciplinary nature.

DEFINING TEXT

European researchers have not felt restricted to sentences as their basic units for analysis; in fact, they have made sentence analyses secondary to defining text. On the other hand, American researchers tend to limit themselves to sentence analyses (e.g., descriptive grammars, t/g grammars, sentence-combining exercises, functional sentence perspective).

At best, sentence grammars indirectly address a major issue in text linguistics: the problem of defining text. As writing teachers we know this central issue. We can confidently tell students what a well-formed sentence (i.e., a grammatical sentence) is. On the other hand, we also know how difficult it is to state what a text is, let alone why a text is or is not well-formed. Once a teacher or researcher moves beyond the
sentence, the complexities of explaining and analyzing 
multi-sentence units increase because the linguistic possibilities 
increase exponentially.

How, then can text be defined? It has been naively defined 
as a collection of words, formed into related sentences, that a 
writer purposefully composes for that writer's specific intentions 
(usually undefined). Text is that part of a language unit (also 
vague) that is not the preface or the footnotes, not the greeting 
or the obligatory closing, not the abstract or the coda.

More sophisticated definitions of text center on text as an 
artifact. Text is 
a sequence of words forming an actual utterance in a 
language. Texts may be transcriptions or recorded materials 
or the result of writing down a work of literature or a 
piece of information (i.e., a message). In all of these 
cases the text is considered... as a document containing a 
sample of a particular variety of language, and serves as 
the basis for linguistic analysis and descriptions (Hartmann 

a meaningful whole which may be presumed to express the 
state of mind of a writer in the way a sentence expresses 
the state of mind of a speaker. Its meaning is more than 
what is grasped just by understanding the individual 
sentences in which the text consists: I may understand these 
and miss the meaning of the whole... [T]ext shows 
evidence of being articulated out of parts in the way a 
sentence is articulated out of words. (Pettit, 1977, p. 
42).

in its mass, comparable to a sky, at once flat and smooth, 
deep, without edges and without landmarks; like the 
soothsayer drawing on it with the tip of his staff an 
imaginary rectangle wherein to consult, according to certain 
principles, the flight of birds, the commentator traces 
through the text certain zones of reading, in order to 
observe therein the migration of meanings, the outcroppings 
of codes, the passage of citations (Barthes, 1974, p. 14). 
However, definitions such as these are little more helpful to 
teachers or researchers than the traditional definition of a 
sentence as a complete idea is to understanding that grammatical 
unit.
Definitions from text linguists, however, are somewhat more useful. For example, text has been defined by what it is not: it is not a sentence nor a "sequence of sentences" nor does it exist before being uttered or written (Sgall, 1979, p. 89). It has also been defined as "an elementary unit of speech communication" (Gindom, 1979, p. 126), a coherent set of sentences (Wirrer, 1979, p. 126), or a "conglomeration of sentences" that native speakers empirically recognize as a unit of language by means of some implicit theory of textuality as yet explicity defined by linguists (Langleben, 1979, p. 246). Charlotte Linde sees texts as "units [that] have an internal structure that is as regular and accessible to study as the structure of sentences". Furthermore, she notes that any study of the structure of texts must proceed from the examination of actual texts rather than from intuitions of what might be possible. These units are organized by a number of formal and cultural principles of coherence, including temporal ordering, tree structure, and a whole net of social assumptions about the way things are and the way things ought to be (Linde, 1981, p. 113).

Other researchers define text as a unit of language in use or as a representation of discourse: the verbal record of a communicative event produced in written or spoken language (Brown and Yule, 1983; Halliday and Hasan, 1976). A text has also been distinguished from stretches of language that are not text by "texture" (Halliday & Hasan, 1976) and by elements of "textuality" such as cohesion, coherence, intentionality, acceptability, situationality, intertextuality, and informativity (de Beaugrande & Dressler, 1981).
For other theorists text is an entity that exists independently of the perceptions of linguists, writers, readers, speakers, or hearers. By this definition, text as a term defines a concept not an actual "piece" of language. This concept is realized as a discourse of indeterminate length that is formed by a number of sentences (more than one) that together have completeness and structure (Gopnik, 1979, p. 161). Thus, under scrutiny, defining text becomes increasingly complex, describing what a text is becomes more vague.

Where is a writing teacher to look for an understandable, usable definition of text? Text linguistics provides at least two possible sources. First, complex definitions of text have been clarified by subsequent investigations of specific aspects of text structure. For example, Shuy (1981), analyzing the problem of intention in text, identifies some of the linguistic markers that imply a definition of text (e.g., topical structure, social and cognitive restraints on structure, definitions of context). Also Holland and Redish (1981) provide additional information on how readers decode texts and what strategies they use to respond to written texts. Investigations such as these propose how the semantic constructs in a text trigger specific cognitive processes people must use to understand text. This relationship between meaning and understanding is a key issue in teaching students the process of writing.

A second source is de Beaugrande and Dressler's proposed definition of text:
A text [is]...a communicative occurrence which meets seven standards of textuality (i.e., cohesion, coherence, intentionality, acceptability, informativity, situationality, and intertextuality). If any of these standards is not considered to have been satisfied [by the text's receiver], the text will not be communicative. Hence, non-communicative texts are treated as non-texts (de Beaugrande & Dressler, 1981, p. 7).

De Beaugrande and Dressler's standards are formalizations of the criteria writing teachers use to evaluate students' essays. Specifically, de Beaugrande and Dressler's criteria describe the components of text are interrelated to achieve continuity and connectivity -- goals every writing teacher espouses. **Cohesion,** the first criterion, depends upon the relationships of lexical and/or grammatical features. It is a phenomenon that is overtly realized in linguistic forms within the surface structure of a text.

For de Beaugrande and Dressler the internal consistency of a writer's or speaker's text (i.e., the completeness of a text producer's conceptual structure) is the text's **coherence;** it is what links the text world to the real world by allowing the reader or listener to see how the text makes sense. Coherence, however, is far more difficult to define. Definitions range from a narrow sense of coherence (Halliday and Hasan, 1976) to broader definitions indebted to cognitive psychology (e.g., de Beaugrande, 1980; Brown & Yule, 1983; van Dijk, 1977; Fodor & Bever, 1965; Freedle & Hale, 1979; Kintsch & van Dijk, 1978).

Generally, researchers agree that textual coherence has two components: an interrelatedness of linguistic elements within a text (i.e., the cohesive elements of text) and a particular relationship between a text and the participants (the writer/speaker and the reader/hearer). (Definitions such as
these could initially cause any teacher to avoid text linguistics! However, to date, linguists do not know the exact nature of textual coherence, the factors involved in recognition of textual coherence, or how these facts interact to assure or defeat textual coherence are known. Text linguists are currently trying to create a vocabulary just to talk about these concepts.

Cohesion and coherence are the two specifically linguistic criteria for text. The remaining five criteria address the social factors of text. **Intentionality** identifies the attitude of a text producer toward both the text and its receiver. If speakers or writers want to communicate (i.e., to create a text), they can select devices that are seemingly non-cohesive and/or incoherent. However, such choices will be intentional (as in detective fiction) or the text will be non-communicative and, by definition, not a text. **Acceptability** is the other side of intentionality: no matter what selections a text producer makes, if receivers do not recognize them, then the text is non-communicative. Whether the participants agree with one another's positions is unimportant. It is their intentions and acceptances that define a language unit as text.

**Informativity** is a criterion that writing teachers will recognize either from their own experience or from previous studies such as M.A.K. Halliday's (1970) theme-rheme analysis, James L. Kinneavy's (1980) discussion of semantic information in discourse, or Joseph M. Williams' (1985) discussions of style. Informativity is the balance of new information to old. How one balances old and new information in a text depends, in part, upon the context one is producing. **Situationality** designates the
relevance of a text to a certain context or situation and, by extension, influences informativity, acceptability, coherence, and cohesion. Finally, intertextuality, a combination of the other six criteria, explores text participants' knowledge of similar texts and how that knowledge promotes communication.

These seven criteria for text are formal descriptions of the knowledge writing teachers are both expected to have when they evaluate students' essays and, more importantly, are expected to impart to their students when they writing and revision strategies. For many teachers, these standards seem obvious but, like text, are difficult to state in practical terms. Successful teachers are those who can translate these criteria for communicativeness into specific suggestions that students can use to re-think and rewrite their essays.

CREATING TEXT GRAMMARS

Text linguists have tried to extend the principles that inform transformational grammars to paradigms that describe texts. Initial attempts to create these "text grammars" were imitative of sentence grammars (for more detail, see Reiser, 1978). However, these initial attempts soon gave way to systems that are different in kind from sentence grammars.

Insert Table 2 about here
<table>
<thead>
<tr>
<th><strong>1.</strong> Sentence accepted as basic unit of analysis.</th>
<th><strong>1.</strong> Text accepted as basic unit of analysis.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SENTENCE: generally accepted as a definable unit; finished product; characterized by grammaticalness; may be a minimal text; highly structured; includes one proposition; encodes a text; can have but need not have a context; linguistic structure.</td>
<td>TEXT: incompletely defined not a &quot;super-sentence&quot;; can be finished product or a process; characterized by coherence; may be less than, one, or more than one sentence; may not be highly structured; includes more than one proposition; creates a context of sentences; must have a context (i.e., must be relevant to a situation); linguistic situation.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>2.</strong> S-grammars are elaborately developed paradigms (e.g., traditional, structural, transformational).</th>
<th><strong>2.</strong> T-grammars are partially developed systems.</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-grammars categorize, label and define numerous grammatical levels (e.g., sounds, prepositions, clauses). General agreement on most particulars.</td>
<td>T-grammars distinguish coherent, communicative units from incoherent, non-communicative units. Little general agreement on particulars (except for classification of some cohesive structures).</td>
</tr>
<tr>
<td>S-grammars proceed by analyzing parts of speech and functions in sentences.</td>
<td>T-grammars proceed by analyzing whole texts rather than parts.</td>
</tr>
</tbody>
</table>

| **3.** S-grammars form a component of T-grammars. | **3.** T-grammars are potentially (but infrequently) derivable from some ideas in S-grammars. |
Table 2, continued

4. **S-grammars deal with syntax** and grammaticality.

   **S-grammars frequently exclude** semantic and pragmatic considerations, concentrating their analyses on structure.

   **S-grammars are formed by** rules that operate within sentences (e.g., subject-verb agreement).

5. **S-grammars include** grammatical entities such as noun phrases and verb phrases.

   **S-grammars cannot account for** intersentence relationships such as article distribution, certain pronominalizations, cohesion, relationships between propositions, etc.

6. **S-grammars are limited to** classifying linguistic forms (e.g., phrase, clause verb, subject) and describing structures (e.g., the definition of noun is a word that takes certain inflectional suffixes and fills certain distributional slots).

7. **S-grammars establish** criteria for well-formedness.

(General agreement on what a non-sentence is.)

4. **T-grammars deal with aspects** of textuality and coherence.

   **T-grammars frequently employ** semantic and pragmatic concepts such as the meaning of a text, a text's macro- and/or microstructure to explain coherence, or how a text is used to create coherence.

   **T-grammars are formed by** rules that operate between and among sentences (e.g., consistency of verb tense sequences).

5. **T-grammars include logical entities such as argument, predicate, and inference.**

   **T-grammars must account for** intersentence relationships such as article distribution, pronominalizations, cohesion, relationships between and among propositions, coherence, verb sequences, topic-comment organization, etc.

6. **T-grammars must integrate properties of linguistic objects (i.e., underlying structures of text) and aspects of linguistic communication (e.g., situation, context, register, intentionality).**

7. **T-grammars have not established criteria for how sentences are pragmatically patterned (i.e., how/why sentences follow one another appropriately).**

(No general agreement on what a non-text is.)
Table 2, continued

<table>
<thead>
<tr>
<th>S-grammars use linguistic intuition to check for grammaticalness.</th>
<th>T-grammars use linguistic intuition to check for acceptability of text. Linguistic intuition will not identify text components.</th>
</tr>
</thead>
<tbody>
<tr>
<td>8. S-grammars explain language users' grammatical knowledge as a structure of available phonemes, morphemes, and syntactic structures.</td>
<td>8. T-grammars explain language empirical knowledge of actual occurrences of text.</td>
</tr>
</tbody>
</table>

(*Based on information from de Beaugrande, 1979, 1980; de Beaugrande & Dressler, 1981; Dascal & Margalit, 1974; van Dijk, 1972, 1973, 1979; Garcia-Berrio, 1979; Gindom, 1979; Itkonen, 1979; Langleben, 1979; Rieser, 1978; Schveiger, 1979; Suleeman, 1981; and Wirrer, 1979.*)
As Table 2 indicates, sentence grammars are highly developed classification systems that define grammatical structures (i.e., products) although grammarians frequently try to include in their models explanations of how sentences are created (i.e., processes). With a sentence, grammaticalness is defined by word choice and position: are the words in the string structured and positioned in accordance with the grammar of the language? With texts, grammaticalness is more difficult to define because there is less agreement on a definition of text and because the rules that define well-formedness for text are partially known. Thus, text grammars, while yet incomplete and still debated, include aspects of sentence grammars but attempt to go beyond sentences to describe the "grammaticalness" of texts, that is, the conditions created by participants in their texts. These conditions are not necessarily encoded in the individual words, phrases, or sentences of a text. In fact, these conditions must include concepts not overtly found in texts. Text grammars try to reflect this complex interaction of the words and sentences of a text with the text participants' cognitive processes, knowledge of language, and knowledge of the world in defined contexts.

Text grammars have not been widely accepted nor have their explanations of well-formed texts been influential because they are difficult to understand. In fact, reading a text grammar such as van Dijk's 1972) or Petofi's (1977; 1979) is a time-consuming exercise. Nevertheless, if we as writing teachers look at these proposed grammars, we find much we recognize. Text grammars may be the paradigms Shaughnessy urges us to find because they will help us define effective writing and writers.
The mature writer is recognized not so much by the quality of his individual sentences as by his ability to relate sentences in such a way as to create a flow of sentences, a pattern of thought that is produced, one suspects, according to the principles of yet another kind of grammar -- a grammar, let us say, of passages (Shaughnessy, 1976, p. 226).

IDENTIFYING COMMUNICATIVE ASPECTS OF SPOKEN AND WRITTEN TEXTS

Text linguists are interested not only in how to define text but also in what the appropriateness conditions are that make a text a text and what dynamics allow the writer/speaker and reader/hearer to recognize an exchange as text. These communicative aspects of text have been of interest to sociolinguists (such as Dell Hymes, 1972) and philosophers (such as John Austin, 1962; H. Paul Grice, 1975, 1978; and John Searle, 1970; Searle, Kiefer, & Bierwisch, 1980). This interest includes a traditional sub-field of linguistics, pragmatics, in that text linguists want to know about text aspects such as

1. why certain sentences in combination create texts but other sentences in combination will not and
2. why some sentences can be paired to others in certain contexts while some other sentences cannot.

In an effort to describe these pragmatic features of text, text linguists have used theories from cognitive psychology and artificial intelligence to identify the complex process participants employ when they recognize an exchange as a text. Text linguists believe that text participants must create networks to understand and produce text. In order to provide a network for the text they're producing, the participants combine information stored in both long-term and short-term memory with the text they're creating. Text participants build text propositions from the information they're presented, from the
immediate contextual information they perceive, and from the information they have stored in their long-term memories. In essence text participants fuse in their working memories text-presented knowledge with world-knowledge to make the exchange (spoken or written) a text.

Text-presented knowledge is primarily the information participants share because the speaker/writer structures given and new information into a text. World-knowledge includes all the information that language users unconsciously know and share such as beliefs, assumptions, commonsense identification, and experiences. Research on artificial intelligence suggests that language users organize world knowledge into patterns, variously called frames (our background knowledge of the world in general), schemata (our experiences ordered by time or causality), plans (our experiences structured in terms of intended goals), and scripts (our experiences organized as episodes) (e.g., Brown & Yule, 1983; Minsky, 1975; Rumelhart & Ortony, 1977; Schank & Abelson, 1977; Winograd, 1972). Although theories identifying why and, more importantly, how text-presented knowledge is fused with world-knowledge are tentative, the potential for writing teachers is obvious. If we can better understand how to facilitate this fusion, we may be able to help our students compose more sophisticated prose.

CONNECTIONS FOR WRITING TEACHERS

Despite its diversity, seeming difficulty, and obvious lack of specific or conclusive answers, text linguistics is a valuable field for composition teachers to examine for several reasons. First, text linguistics asks many of the same questions asked by
teachers. For example, What is text? What is it to be communicative? What are the strategies, schema, frames, plans, goals that govern text and its creation? How can one best explain the answers to these questions to language use -- in our case, students?

Second, text linguistics is not another means of exposing product. This discipline doesn't seek to substitute texts for sentences in order to diagram texts as artifacts. Instead, text linguistics studies what texts are (i.e., texts as products) and, more importantly, how they are recognized (i.e., texts as process). It offers ideas on how to integrate the product/text into the process approaches now so important in composition research and practice.

Finally, text linguistics seeks to create paradigms and identify rules of well-formedness of texts that teachers can appreciate as theoretical constructs and use as teaching aids. The suggestions about text grammars in Table 2 are interesting theories to explain what texts are. At the least, these ideas can spark our investigations. But they can also imply to us ways to explain to students concepts such as what participants in a communicative text expect, what sorts of knowledge these participants may have of certain contexts, and what certain concepts such as textual coherence actually are. In brief, one of the benefits that writing teachers can gain from text linguistics and the paradigms it proposes is the ability to analyze and evaluate communication situations that heretofore we have not be fully able to examine either rhetorically or pedagogically.
This brief introduction defining text linguistics, outlining the disciplines it depends on, indicating its major issues, and suggesting its connections to our concerns is just that -- an overview of the theoretical connections text linguistics has to our work as writing specialists. The logical question is can any of these theories improve our practices or suggest new directions for our research? Obviously, applying all the accumulated knowledge of text linguistics to student writing is a Sisyphian task. Nevertheless, we believe that applying specific insights from text linguistics to writing problems can open new areas for research and improve our ability to teach writing. To show how text linguistics' concepts can be applied to practical writing problems, the following two sections of this review present preliminary reports on research projects that use theories from text linguistics. Specifically, the next sections discuss

1) how Grice's CP Maxims increase our ability to write instructive evaluations of student papers and

2) how schema theory helps instructors teach ESL students to write more effective expository essays.

Frustrated with the limitations of traditional linguistic and rhetorical principles, we evaluated Grice's Cooperative Principle and Maxims as means to analyze instructors' comments. According to this analysis, Grice's CP Maxims clearly explain the dynamics of theme/comment, the dialogue initiated between an instructor and a student when the instructor writes comments on the student's paper. This report illustrates how a text-based analysis of instructors' comments on students' essays can help
instructors evaluate their own comments and provide clear strategies for revisions.

The final section investigates ways to get ESL students to exploit narrative schema to write effective expository essays. Again the emphasis is having ESL students create communicative texts. The investigations are pilot studies: one explores improved techniques for commenting on student papers; the other explains a unique application of schema transfer from narratives to expository prose.

TEXT LINGUISTICS AND TEACHING COMPOSING: THEME/SPEECH COMMENTS

Speech Act theory, one aspect of text linguistics, extends our ability as writing or communication instructors to analyze and evaluate communication situations more completely than rhetorical or pedagogical studies have. One place that this extended ability is obvious is in how our comments on students' papers create dialogues, special speech acts only incompletely analyzed by rhetoric. For example, few if any of us now teach writing courses without at some time marking comments on students' papers -- even if we do not adhere rigidly to the assign-assess pattern of teaching. In many, if not most, writing courses commenting on student papers remains a primary pedagogical tool that deserves the attention we have given it in our journals and books. Our marks on students' papers are viewed by our students as either positive comments that recognize the communicative text they seek to create or negative comments that fail to create a necessary dialogue. Wayne Booth notes the
importance of this theme/speech as a way to create a dialogue between the teacher and the student, a "realistic" writing situation beyond the assigned writing topic: "a good teacher can convince his students that he is true audience, if his comments on the papers show that some sort of dialogue is taking place" (1975, p. 76).

Booth's insight is only the beginning (see also Flower, 1980, 1981; Flower & Hayes, 1977; Griffin, 1982; Harris, 1978; Sloan, 1977; Sommers, 1980; Ziv, 1982). We have examined the rhetorical points in typical college freshman expository essays that might need to be commented on (Brodkey & Young, 1979; Diederich, 1974; Irmscher, 1979; Lindeman, 1982). Studies have shown us why our comments on content and style need to be acceptable to students (e.g., a balance of positive and negative statements, a balance of comments on mechanics and content) (Judine, 1965; King, 1980). We have provided model comments to guide teachers (Brannon & Knoblauch, 1982; Najimy, 1981). As writing teachers we know that, by using taped evaluations of student papers (e.g., Wilkens, 1979; Yarbro & Angevine, 1982) or giving verbal comments to students on their writing in conferences or in peer evaluations (e.g., Bissex, 1982; Elbow, 1973; Macrorie, 1976; Murray, 1968), we are most effective because we are treating our students' writing as dialogue. Our comments serve as exploratory discourse about the students' work. We have even "outlawed" some forms of comment in "Students' Rights to Their Own Language" (1974; Kelly, 1978).

Published advice such as this is content-based analysis. It is predicated on the rhetorical form of expository essays: it guides teachers on how many comments and which kinds of comments will
help students best apply the rhetorical forms and expectations particular to exposition.

As helpful as these published guides are, they tell us little about how our comments create a dialogue with students and how this dialogue, a dynamic process of communication, can help us teach students to write better essays. Text linguistics, because it addresses questions of communicative competence, can be used to discover what we actually say or imply when we write our comments on student papers. Specifically, speech act theory (SA) explores how communications are ideally structured and how these structures can be purposely or inadvertently violated.

S/A THEORY AS AN ANALYTIC TOOL

In contrast to rhetorical theory, Speech Act theory helps us discover where, how, and what our "language" in teaching comments communicates. Specifically, SA and text linguistics provide us

a. a more flexible definition of text. SA considers any purposeful communication a linguistic text. Because they are a recognizable form of communication responding to a definable situation, theme/speech comments are distinct modes of discourse that can be analyzed using SA techniques. Such analysis, for example, eliminates the problem of rhetorical classification (e.g., are they persuasive? exploratory?) and allows teachers to concentrate on what actually happens in this unique communication situation.

b. a way to examine written and oral texts as communicative forms. Theories that explore the communicative aspects of speech can help us analyze a written text, particularly when the text parallels dialogue, a common oral form.

c. a convenient tool to apply when examining the implications of a specific text. SA analyses provide a general, easily used tool through which we can examine what is implied but not actually stated in a communicative situation.
Many of the basic tenets of SA theory overlap with rhetorical principles because they both deal with goal-based language forms. In fact, other researchers have explored the similarities between rhetorical and SA principles (e.g., Cooper, 1984) and the universal concerns of effective expository writing on any subject (e.g., Halpern, 1978). For this discussion, Table 3, a revised version of Table 1, illustrates rhetorical terms and SA principles with comments to a student essay (see Appendix A) written by various teachers.

In Table 3 Column 1 defines and exemplifies Grice's Cooperative Principle and Conversational Maxims (Grice, 1975, 1978). Column 2 contains the terms used in many texts for writing teachers (e.g., Foster, 1983; Irmscher, 1979; Lindeman, 1982; Neman, 1980; Walvrood, 1982; Wiener, 1981). Column 3 lists some of the instructors' comments made on a freshman's essay that illustrate the CP Maxim and the traditional rhetorical term represented in the first two columns (from Brodkey & Young, 1979; Najimy, 1981; Sunde, 1983).
<table>
<thead>
<tr>
<th>CP MAXIMS</th>
<th>RHETORICAL TERMS</th>
<th>INSTRUCTORS' COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. QUALITY: Is the amount of information appropriate for the purpose of the discourse?</td>
<td>Development Logic/Support Content Sensible Clarity</td>
<td>You don't develop this. Why a disadvantage: you give no explanation.</td>
</tr>
<tr>
<td>2. QUALITY: Does the text say what the writer believes to be truthful?</td>
<td>Ideas Logic Support Sensible</td>
<td>Good point, but tell us why. Logic/you'd have to write an essay to prove this assertion.</td>
</tr>
<tr>
<td>3. RELATION Does the focus adequately relate to the purpose of the discourse?</td>
<td>Focus Organization Interesting Logic</td>
<td>You do not offer us a step-by-step answer to the topic question. You are not to focus on...but on... Connection in ideas? Splice Diction/Too informal One sentence paragraphs may not be clear.</td>
</tr>
<tr>
<td>Are the features/strategies used for what is said adequate ones?</td>
<td>Rhetoric Coherence Style Mechanics</td>
<td></td>
</tr>
<tr>
<td>4. MANNER Does the text avoid obscurity?</td>
<td>Clarity/Coherence Logic Clarity/Coherence Word accuracy Vocabulary</td>
<td>How do you know? Is this an advantage? Label it clearly. Pn. reference Clarify &quot;written word&quot;</td>
</tr>
<tr>
<td>avoid ambiguity?</td>
<td>Redundant Repetitious Irrelevant</td>
<td>Repetition Irrelevant</td>
</tr>
<tr>
<td>Is the text brief?</td>
<td>Style Organization</td>
<td>Confusing. Try to keep your categories separate and clear.</td>
</tr>
<tr>
<td>Is the text orderly?</td>
<td>Style Vocabulary Diction Perspective/Flavor</td>
<td>Wrong word Better word? Diction/Slang Informal.</td>
</tr>
<tr>
<td>Is the social dialect appropriate to the context?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 3: Parallels Among CP Maxims, Rhetorical Terms, and Instructors' Comments
A cursory glance at Table 3 indicates problems teachers encounter and some of the reasons for further analysis. For example, several of the labels in Column 2 fit into more than one communicative category; thus, they are easily misinterpreted particularly by students who have little experience with writing. In addition, since these comments are fundamentally an oral form of discourse that teachers transcribe, SA analysis is a particularly appropriate analytic tool to apply.

When writing teachers look at the content comments that they put on students' papers, they often notice that a student who views "more development" as a positive comment on one paper would view a similar comment on another essay as a negative comment. Although the vocabulary connotations don't seem different to us, they obviously are to students. We have all asked ourselves "What is happening?"

To find out, we conducted a study that analyzed the comments of various writing teachers (teaching assistants, lecturers, and professors) to an in-class essay written for a first semester freshman writing course (see Appendix A for student's essay). (The statistical results of this study have been reported in full at the 1983 Wyoming Conference on Freshman and Sophomore English.) In addition to our analyses of our colleagues' comments, we asked students to evaluate these same comments rating them on a sliding scale of "Helpful - Not Helpful." (For further information on and evaluation of students' responses, see Appendices B, C, and D.) In brief, we found that students preferred comments to be structured into three divisions. Teachers' comments should:
1. Identify the Cooperative Maxim that the student violated.
   a. "You are not to focus. . ."
   b. "You give no explanation. . ."
   c. "...may not be clear. . ."

   Notice in the instructors' comments in Table 3, teachers identified the CP Maxim by describing what was violated rather than by labeling the violated maxim or the rhetorical term. As Column 2 indicates, labels can be confusing because the same label (e.g., "sensible") can refer to several different communication problems. Students typically don't know or understand technical labels. However, since the CP Maxims are part of their communicative competence, a description of the violation is usually immediately recognized by the student and readily accepted as helpful criticism.

2. Reflect the communication back to the student as is done in reflective listening techniques in counseling (see Table 4).
   a. "just on Malcolm X. . ."
   b. "of your cause/effecti assertion. . ."
   c. "One sentence paragraphs. . ."

   When teachers' tape their comments, they automatically reflect the student's communication back to the student (e.g., "here, in paragraph 3 where you say...," "You don't really mean [paraphrased], but....") Although this type of reflection is rarely done on marked papers, it is necessary because what the instructor many times thinks is not always obvious to the student (Ziv, 1982).

3. Suggest a strategy for correction.
   a. "...but on the advantages or disadvantages in general. . ."
   b. "Why is it a disadvantage?"
   c. "...because he may need examples, illustrations..."

   The preferred strategies for correction are describing what or how to focus on the problem using questions the student is expected to answer in the paper or referring to concepts discussed in class that the student needs to consider. Note that the instructor isn't "putting words in the student's mouth" nor striking out the student's syntax and correcting it. The instructor is offering ways for the student to revise her own writing.
As might be expected, these three strategies correspond closely to the guidelines for writing workshop tutors in Steward's handbook (see Appendix E, Steward & Croft, 1982). The obvious overlap between Steward and Croft's procedures and our suggested theme/speech comment structures exists because both are dialogues, both explore writing effectiveness, and both presuppose a desire by the participants to improve a specific communicative performance.

Unfortunately, as we examined our analyses more closely, we found that using this three-part structure did not guarantee producing a positively viewed comment. While all the "helpful" comments were indeed framed with this structure, many of the "not helpful" comments used the same structure. We were back to a problem all teachers face: what is the crucial difference between the way positive, helpful comments and negative, pragmatically inappropriate comments are framed?

The difference between positively framed and negatively framed comments becomes clear if we take a closer look at the implicatures involved in this three-part structure. Gricean CP theory presupposes that any time one of the four maxims is violated, the violation is either unintentional or is done for a communicative purpose. If the slip is unintentional, the text receiver/listener asks for clarification. If clarification is not forthcoming or is unsatisfactory, the text receiver assumes that the speaker does not know what he or she is talking about or that the violation was purposeful. Students do indeed make this inference of instructors who violate the Gricean Maxims in their lectures and in the theme/speech comments. For example, one
lecturer reported to us that he overhead a student clearly
expressing this point: "He may know a lot about Hemingway, but he
sure don't know how to teach!"

If the violation was purposeful -- if the CP Maxim was
flouted -- the text receiver infers possible motivations for that
flouting: was the speaker/writer being ironic, sarcastic, or
humorous? We can see how these implicatures work in theme/speech
comments if we distribute them in a flow chart (see Table 4).

Insert Table 4 about here

Table 4 reproduces the comments made by three different
instructors to the same sentence in an English 101 student's essay
(see Appendix A). None of the instructors knew the student and,
therefore, none understood the student's idiolect. Students
judged only one of the instructors' comments as "helpful" and
positive. Students felt

calendar #1 was demeaning. They were persuaded that the
instructor didn't care about the student nor the writing.
violates quality: no evidence
quantity: label is not enough information
manner: obscure, ambiguous, social dialect
is elevated above the normal oral
student usage;

calendar #2 was patronizing (i.e., the instructor "thinks he's
too good"). They were persuaded that the instructor thought
the student was stupid.
violates quality: "topic" misunderstanding -- no proof
quantity: unbalanced, much more in reflection
section = critical
manner: social dialect elevated;

calendar #3 was helpful.
satisfied quality: lacks labels, uses description,
gives examples/evidence
quantity: balanced, not too much in violation
section so I [student] can under-
stand and finish revision
manner: clear, allows student's definition
of topic.
FLOW CHART ANALYSIS I *

<table>
<thead>
<tr>
<th>I</th>
<th>II</th>
<th>III</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identify Violated Maxim</td>
<td>Reflect Writer’s Response</td>
<td>Offer a Strategy</td>
</tr>
</tbody>
</table>

1. Irrelevant

2. Delete/your reader doesn’t care whether or not this topic is being researched effectively. → Stick to your topic!

3. It is unimportant at this point whether it’s being researched. → Why is the topic important to readers? How does it relate to them?

Table 4: Flow Chart Analysis of Three Comments on the sentence
Many professional educators are surely researching this.

*Analysis assumes that the teacher and the student are new to one another and have not identified one another’s idiolect.
From these comments, some general patterns begin to emerge that show how students draw implications from teacher's uses of Grice's CP Maxims (see Table 5).

Insert Table 5 about here

In the first place, students objected to the use of traditional rhetorical labels such as "logic," saying such labels were unclear, unreasonable, and implied a cavalier attitude. In this survey, students felt the instructor was using the comment "logic" to tell the student writer that his logic was faulty and required additional explanation. They objected to the comment because they felt the writer's sentence did relate to the topic sentence, and they provided the enthymemic premises for this relationship (see Appendix C for statistical samples of students' reactions). Even the instructor who wrote "logic" had to think for quite a while before she could remember exactly what she had in mind when she labeled the sentence. Thus both the students and the instructor recognized that the writer had omitted enthymemic premises and, consequently, had violated the maxim of quantity and had created a violation of the relevance maxim.

Nevertheless, communication between the instructor and the students broke down because the students found the label contradictory: if this sentence does not relate to the topic sentence, why does the writer have to explain it? Why not just delete it? In the students' eyes, the instructor is "illogical" and incompetent for incorrectly identifying the problem. Further, since they could see the logical relationships that the student
FLOW CHART ANALYSIS II

<table>
<thead>
<tr>
<th>I</th>
<th>II</th>
<th>III</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identify Violated Maxim</td>
<td>Reflect Writer's Response</td>
<td>Offer a Strategy</td>
</tr>
</tbody>
</table>
| 1. Logic/
   This does not relate to topic sentence. | Why not? Explain |
| 2. Contrary to popular belief, Malcolm X lived in this century from 1929-1965 and conversation was a well developed skill even at that time. | Are you really referring to time? |
| | do you mean that since Malcolm X was in prison, he didn't have anyone with whom he could discuss his education? |
| Be SPECIFIC! |
| 3. You end in saying something you do not mean. |
| To say "conversation was not present at that time" is not the same as saying "he had no one to talk to." |
| 4. You are not to focus just on Malcolm X but on the advantages or disadvantages in general. |
| 5. You give no explanation of your cause/effect assertion. |
| Why is it a disadvantage? etc. |
| 6. One sentence paragraphs may not be clear to your reader because he may need examples, illustrations. |

Table 5: Flow Chart Analysis of Six Comments to the Sentence Conversation, which is important to a good education, was not present at the time of Malcolm’s self-education.
The writer was implying, the students felt that the instructor had been cavalier with the writer: "She doesn't care."

For students who don't understand the way a particular instructor uses technical vocabulary, such comments violate the maxim of quantity. In fact, in conferences we observed given by three instructors, the instructors most often had to expand and explain their use of a label. In these conferences, the students would demand that the instructor define and describe the specific violation using the specific section of the essay (see also Ziv's experience, 1982). The ability to provide students with comments that meet the maxim of quantity appears to be crucial in teaching writing; however, it is one that is seldom discussed in the literature perhaps because we lack a way to identify its specific nature.

In the second place, students wanted a specific quantity relationship in comments, preferring balanced statements in which violation identification, reflection, and suggestion were roughly equal. According to our analyses (see Appendix D), students never rated a comment as acceptable if the violation identification section was the longest. Students tended slightly to favor comments that gave more information in the reflection and strategy sections. For example, the concepts in the violation sections of comments #2 and #3 are identical, but their implications are very different. Comment #2 uses labels (i.e., BE SPECIFIC) and lacks description -- violations of maxims of manner and quality. Comment #3 puts more emphasis in the reflection and strategy sections, exploiting the maxim of quantity. Comment #4, rated "helpful" by the students, avoids labels by using focus as an infinitive rather than an imperative.
In the third place, students preferred comments adhering to the maxim of relevance. They felt, for example, that the dates in Comment #2 didn't belong. The implication they drew was "the instructor thinks the student writer can't read and is therefore stupid." Although instructors may, at times, want to imply this to students as a kind of ascerbic motivation to pay more attention to what is being written, this was not the instructor's intentions here.

In the fourth place, students demanded that the comments adhere to the quality of relevance (i.e., truthfulness). They felt the instructor's response in the strategy section of comment #2 accurately rephrased what the writer wanted to say. Because they recognized this fact, the students inferred that the instructor knew what the writer meant and intended her comment in the violation section to be sarcastic. For a student writer suffering from writing block, as this student obviously is, sarcasm can be devastating; his peers correctly recognized the affront and responded sympathetically. They preferred the Rogerian technique used in comment #3: clearly state the problem without blame, give the evidence (i.e., reflection), and offer a solution for the problem.

In the last place, students rejected suggestions in the strategy section that were maxims or dictates. They preferred guidelines or, even more, questions that student writers can answer. This approach leaves the essay writers free to generalize, to form their own materials and support, and to tie in concepts that might have been discussed in class in more general terms.
CONCLUSIONS

How, then, does SA theory help us as writing instructors?

Specifically, using SA to analyze theme commentary

1. provides a framework for analyzing important modes of discourse such as theme commentary, modes that formerly we have not been able to analyze fully. SA theory does not identify theme commentary as a general class of speech such as persuasive or exploratory. Instead it sees theme commentary as a dialogue, a unique form of discourse governed by linguistic rules of communicative competence that affect participant expectations.

2. identifies theme commentary as text. Such analyses help us (a) isolate the specific elements of our own communications that are crucial in conveying information to students (e.g., the above three-part structures and their implications) and (b) use these elements effectively, fully conscious of the implications that our communications will carry to students.

3. enables instructors to exploit the communicative competence students already possess rather than relying upon rhetorical concepts and terminology that most students today do not know and do not need to learn.

4. indicates how we can make future instructors aware that they are creating a text when they mark students' papers. If novice instructors understand the framework of the dialogue they create and the implications they set in motion by adhering to or flouting Gricean maxims, they are more likely to be successful writing instructors.

In other words, text linguistics provides us, as specialists in written communication, both a deeper awareness of the dynamics of discourse and an analytic tool with which we can explore the processes of communication.
ACQUISITION OF EXPOSITORY FORMS IN ESL COMPOSITION

Even more frequently than native speakers, ESL students fail to grasp the rhetorical principles and the reader/writer expectations required in regular English composition classes. In order to deal with this problem, ESL instructors have turned to two basic sources: the early works on cultural differences in thought and writing and the research and expertise of English language specialists and composition teachers. Of these two areas, the former has had a longer association with language teaching and ESL writing skills. However, in the main, these studies have not helped ESL teachers in the classroom as much as they had hoped.

Several provocative theories have been proposed by researchers in text linguistics, cognitive psychology, and artifical intelligence. Of these theories, the one that shows promise for ESL teachers is schema theory, an analysis of text processing that has emerged from the joint research of cognitive psychologists and text linguists. As de Beaugrande (1980, p. 163) claims, a "global hypothesis" as schema must exist in order to explain how humans are able to direct and control communication in a text. Accordingly, de Beaugrande and Dressler (1981, p. 4) have argued that memory schema is one type of global knowledge pattern that determines a text's coherence, "the configuration of conceptions and relationship which underlie the surface text."
Freedle and Hale's 1979 pilot study on schema transfer discusses a procedure in which the underlying story schema categories of a narrative passage are used as an aid to the comprehension of expository prose. In this study, children were given a narrative passage written in a way that highlighted a story schema. The narrative passage was followed by an expository passage containing the same categories and semantic content as the narrative. Schema transfer, Freedle and Hale reason, is possible because a narrative schema is strikingly similar to an expository one in semantic content and sequence of schema categories. Furthermore, they assume, as Thorndyke (1977) and Mandler and Johnson (1977) had, that this schema would help the children recall the content of the passage, see the similarities between the two passages, and comprehend the expository passage better because the process required to analyze an expository passage parallels that required to recognize a story schema. Therefore, transfer between the two forms should be facilitated. Freedle and Hale's results appear to substantiate their predictions.

We adapted Freedle and Hale's basic procedure to a writing task for intermediate and advanced ESL college students. We first presented a subject within the domains of a narrative passage's story schema. The narrative passage emphasized certain memorable features of a story schema grammar Mandler and Johnson (1977) discovered in the experiments: setting, beginning, outcome, and causal connections within episodes (see Table 7).
Table 7: Narrative Passage, Schema Categories, and Connectors

<table>
<thead>
<tr>
<th>Schema Story Categories</th>
<th>Narrative Passage</th>
<th>Proposition Connector</th>
</tr>
</thead>
<tbody>
<tr>
<td>Setting</td>
<td>Time is running out for Rafael. He has less than one week to write a report on the Space Shuttle or else he'll fail his science class. The task won't be easy because he isn't exactly sure how to start. Therefore, he calls his science professor and asks for his advice. His professor suggests that he first find important background information on the Space Shuttle by looking in the Reader's Guide. Consequently, after hanging up, he rushes off to the library to begin his research. Once inside the library, he aimlessly wanders around looking for the Reader's Guide, but he can't find it.</td>
<td>Cause</td>
</tr>
<tr>
<td>Beginning</td>
<td>Becoming thoroughly exasperated, he decides to ask a librarian for directions. He finds a librarian and asks for directions, and she also tells him he can find the location of books by checking the library floor plan. He has no problems finding the Reader's Guide from the directions. Next, he looks in the Reader's Guide under &quot;space,&quot; &quot;space travel,&quot; and &quot;transportation.&quot; He finds several articles on the Space Shuttle under these topics and goes dashing off to find them.</td>
<td>Cause</td>
</tr>
<tr>
<td>Prop. 1</td>
<td>But wait a minute! He can't remember the articles' titles or anything about them. He begins to think that he should have jotted down some information about each article instead of relying on his memory, so he returns to the Reader's Guide, pencil and note pad in hand. Writing the articles down, he again sets out. However, he doesn't get very far before an idea strikes him. &quot;What if the library doesn't have the magazine I need?&quot; he says to himself. &quot;I'd better play it safe and check the card catalogue. After that, I'll check the library floor plan, as the librarian suggested.&quot; He pats himself on the back for thinking so brilliantly. After checking the catalogue and floor plan, he finds his articles easily. Then he finds a quiet spot to read them. But after spending an hour reading one article that wasn't very helpful, he's tired of wasting time. The rest of the articles are just scanned quickly and the useful ones saved. Now, he wisely decides to duplicate these articles. Finishing that chore, he packs up his copies.</td>
<td>Time, Cause</td>
</tr>
<tr>
<td>Prop. 2</td>
<td>His first task in writing the report is done. He heads for the Student Union to have a cup of coffee.</td>
<td>Time</td>
</tr>
<tr>
<td>Prop. 3</td>
<td></td>
<td></td>
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<tr>
<td>Prop. 4</td>
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<td>Prop. 5</td>
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<td>Prop. 6</td>
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<td>Prop. 7</td>
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<td>Prop. 8</td>
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<td>Prop. 9</td>
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<td></td>
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<tr>
<td>Ending &amp; Emphasis</td>
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</table>
Our premise seems obvious. Because the narrative passage encodes specific information in a recognizable sequence, students should be able to use this passage as a means to recall and transfer information to an expository writing task.

The premise is based on several interrelated arguments. First, Mandler suggests that story formats are "universally memorable regardless of cultural proclivities (Mandler, 1979, p. 293). The narrative text should, therefore, serve as an effective cultural base for transfer. Second, the underlying connectors within and between episodes are causal and temporal in nature (Mander & Johnson, 1977; Thorndyke, 1977). These connectors and their syntactic realization have been cited as universal cognitive categories in world languages (Clark & Clark, 1978). Third, in rhetorical terms, expository prose often requires careful attention to cultural expectations and inferencing on the part of the writer. Any veteran writing teacher can confirm this argument. Writing teachers know that surface cohesion is frequently insufficient to make connected discourse comprehensible (e.g., Beene, 1981; Thorndyke, 1976; Witte & Faigley, 1981).

METHODOLOGY

With these arguments in mind, we constructed a four-part writing task for an experimental class. The control group did not do the first two tasks for the expository assignment but spent longer on the second two tasks than did the experimental group:

1. narrative passage: introduced and discussed,
2. propositions: extracted and discussed,
3. expository form: introduced and discussed,
4. writing assignment: students complete expository writing assignment based on the 12 propositions.
We presented the narrative passage to the students in the experimental group. This passage, adapted from Smalley and Hank's 1982 ESL text Refining Composition Skills (p. 238), contains 12 identifiable propositions (see Table 8).

Table 8: Propositions extracted from narrative passage

Finding Information on the Space Shuttle in the library

1. Find Reader's Guide or another index
2. If you do not know how to find the guide, ask.
4. Jot down possible articles.
5. Check the library listing of periodicals -- which periodicals are available.
6. Write down the call numbers of the available periodicals; check the library floor plan to find where the periodicals are kept.
9. Find the periodicals.
10. Find the articles.
11. Scan articles to determine if they are helpful.
12. Duplicate the articles if they are helpful.
In order to emphasize the self-discovery and schema activation aspects of the experiment, we typed the individual sentences from the passage on separate strips of paper. The instructor then divided the experimental group into two subgroups and gave each subgroup one of the shuffled sets of sentences. The two groups were to reconstruct the narrative text from the separated sentences. The students were left to work out the passage so that they would discover connections and solve order problems within the set of sentences and without teacher-directed prodding. The discrepencies between their reconstruction and the original passage were discussed. The instructor explained to the class some basic concepts from text linguistics: what a text is, what surface cohesive devices are, and what some aspects of inferencing and coherence are. During this discussion, the class, with the instructor's guidance, identified the 12 propositions underlying the narrative text and discussed them thoroughly. After this discussion, the instructor conducted a cloze test using the original narrative passage. This test later served as a comparison factor in the evaluation of the expository writing task for the experimental group.

Forty-eight hours elapsed before the next stage of the experiment. When the class met again, the instructor outlined the aspects of an expository essay that analyzed and explained a process. Particular attention was paid to linguistic constructions such as the imperative mood and modals (e.g., should, might, must, and can). The instructor explained to the students that readers expect imperatives in process papers and that modals in English indicate subtle meanings that can be
interpreted as expectations and inferences the writer wants the reader to notice (see Smalley & Hank, 1982, p. 238).

At this point the list of the 12 propositions was re-introduced, and the students were instructed to write an analysis by process essay based on these propositions. The instructor told them this exercise was preparatory to an in-class essay they would later write on another process. Although the students had the propositions in a chronological order, they were to follow whatever order seemed logical to them. The instructor encouraged the students to use the imperative mood and modals whenever they thought these forms necessary for clarity. They had 30 minutes to write the expository passage. (For sample passages, see Appendix F.) The propositions thus became the pivotal factor in the transfer schema.

The control group, on the other hand, did not see the narrative passage, did not do the reconstruction activity, and did not receive the cloze test. However, the instructor introduced the propositions and gave the same introductory lectures on analysis by process.

We asked a panel of writing teachers to score the experimental and the control group's papers according to a holistic evaluation, paying particular attention to sentence variety, development of cohesion, and statement of purpose. We were heartened by the data from the experimental group. Overall, the students in this group scored better on the holistic evaluation, used modals more frequently, and showed greater variety in sentence construction. Students in the control group used more redundant structures, relying heavily on
repeated compound or imperative sentence structures. The more varied sentence structure implies that students in the experimental group understood the propositions better and, therefore, were better able to vary sentence structure to reveal inferences. Also, students in the experimental group used cohesive devices judiciously. In contrast students in the control group overused cohesive devices, used cohesive devices poorly, or used cohesive devices incorrectly. For example, students in the control group used unnecessary repetitions of the transitional words _then_ and _next_ when not explicitly needed and often used pronominal references such as _it_ and _this_ ambiguously.

**DISCUSSION**

This experiment is a preliminary, pilot study and cannot serve as conclusive evidence for schema transfer. There is, for example, one obvious objection that can be raised about the analysis: the experimental group may have performed better on the expository writing task simply because of the additional practice they had with the content of that passage. While both groups spent the same amount of time preparing for the essay, the experimental group had more time and practice with the topic before they wrote their expositions. This argument, however, does not explain the experimental group's better control of sentence variety and cohesive devices. The narrative passage cannot account for such an effect since these features were equally discussed in both groups.

Despite these caveats, the positive indications from this preliminary study should not be overlooked. For example, elements in the story schema of the narrative appear to be
transferred and applied in a salient fashion by the experimental group in the writing exercise. For one, this activity indicates that some form of schema restructuring and tuning can be employed and can help ESL students write better essays. To explain the dynamic learning properties of this activity, it is helpful to view the procedure in terms of Rumelhart and Norman's 1978 features of schema learning. In their analysis, they posit that the experimental group in the pilot study could better encode semantic information, embodied in the 12 propositions, from the narrative. When this information was transferred to the new expository form, different requirements for the semantic information were necessary. Quite possibly an inductive learning process was activated. Rumelhart and Norman speculate that "if certain configurations of schemata tend to co-occur either spatially or temporally, a new schema can be created, formed from the co-occuring configuration" (1978, p. 46). As a teaching tool, inductive processes are not the "norms" in ESL teaching. Usually, syntactic or discourse forms are first modelled and patterned -- then imitated and practiced by the students. This deductive process has served ESL methodology well for many years. It may well be that modelling and patternning play important parts in encoding both the narrative passage and the new expository forms before transfer. However, the pilot study suggests that we should explore more inductive teaching processes in ESL writing.
CONCLUSION

This simple exercise holds promise that schema transfer from a narrative passage can be used as an effective activity for ESL students to learn how underlying propositions in a text form an important part of that text's coherence. Indeed, textual coherence has long been ignored in ESL research. Most studies of ESL writing focus on cohesion as textuality; they imply that certain structural ties (such as transitional words, pronoun references, and lexical repetition) are the primary features second language students must learn to become competent writers in English (e.g., Carpenter & Hunter, 1982). However, Witte and Faigley (1981) and Carrell (1982) have questioned the implicit assumption behind a cohesion theory of writing. Witte and Faigley prefer an approach to textuality that analyzes the combined effects of cohesion and coherence because "the quality of 'success' of a text...depends a great deal on factors outside the text itself, factors which lie beyond the scope of cohesion analysis" (1981, p. 199).

Carrell (1982) also supports such an approach and suggests that schema-theoretical concerns with listener-reader contributions to comprehending text are also significant in considering the needs of ESL writers. It therefore is important that further studies based on textual concerns with schema-coherence relationships should be undertaken in all phases of writing research -- from native speakers' revision processes to ESL writing. This paper presents a start in that direction.
REFERENCES


Students' rights to their own language. (1974). College Composition and Communication, 25 (Special fall issue).


Assignment: In the excerpt from his Autobiography in our textbook, Malcolm X describes how over several years he taught himself to read and write, and working alone learned much about people, places, events. Write an essay in which you discuss the advantages and disadvantages of a "homemade education"--of anyone (not just Malcolm X) attempting to acquire an education by working and studying entirely alone.

Homemade educations like the one Malcolm X acquired are interesting because they are rare. Many professional educators are surely researching this. The advantages and disadvantages must be understood to understand Malcolm X's perspective.

Conversation, which is important to a good education, was not present at the time of Malcolm's self-education. It would have been interesting to see how well he could converse with educated people. Would he talk like
the written word, or would he use
the slang he knew before his education.
This is one disadvantage to learning on
ones own.

Malcolm did not have the
opportunity to debate his opinions
with others. This would seem to be
a very frustrating aspect of self-education.
His being prison narrowed his
in studies, after all, how can you be
an anthropologist from a cell.

Because Malcolm X was "entirely
alone" his opinions were entirely
his own. Persuasive speakers and
propaganda would be less likely to sway
him. He probably was a logical thinker
and took time to analyze something
completely.
APPENDIX B: RATING SHEET GIVEN TO STUDENTS

To the Students: Please rate the following comments from graded papers on both the scales provided:

<table>
<thead>
<tr>
<th>COMMENT</th>
<th>A</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subjective &amp; empty -- avoid</td>
<td>1</td>
<td>2 3 A B C</td>
</tr>
<tr>
<td>Perhaps, but what has this observation to do with advantages or dis-advantages?</td>
<td>1</td>
<td>2 3 A B C</td>
</tr>
<tr>
<td>How do you know?</td>
<td>1</td>
<td>2 3 A B C</td>
</tr>
<tr>
<td>Subjective--what is important to one is trite to another.</td>
<td>1</td>
<td>2 3 A B C</td>
</tr>
<tr>
<td>You end saying something you do not mean. To say &quot;conversation wasn't present at that time&quot; is not the same as saying &quot;he had no one to talk to.&quot;</td>
<td>1</td>
<td>2 3 A B C</td>
</tr>
<tr>
<td>What does this mean?</td>
<td>1</td>
<td>2 3 A B C</td>
</tr>
<tr>
<td>Reread the assignment--you are not to focus just on Malcolm X, but on the advantages or disadvantages in general</td>
<td>1</td>
<td>2 3 A B C</td>
</tr>
<tr>
<td>Best word?</td>
<td>1</td>
<td>2 3 A B C</td>
</tr>
<tr>
<td>Why is it a disadvantage: you give no explanation of your cause-effective assertion.</td>
<td>1</td>
<td>2 3 A B C</td>
</tr>
</tbody>
</table>
APPENDIX B, continued

<table>
<thead>
<tr>
<th>COMMENT</th>
<th>OBJ.</th>
<th>SUBJ.</th>
<th>HELPFUL</th>
<th>NOT HELPFUL</th>
</tr>
</thead>
<tbody>
<tr>
<td>10. Diction/ harmful painful distressing, etc.</td>
<td>1 2 3</td>
<td>A B C</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Wrong word</td>
<td>1 2 3</td>
<td>A B C</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. You don't really develop this idea, and this appears to be your thesis sentence.</td>
<td>1 2 3</td>
<td>A B C</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. Be specific—you are vague here—what perspective? The person euphemizing or being &quot;euphemized&quot; about?</td>
<td>1 2 3</td>
<td>A B C</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14. If you persist in using rhetorical questions, learn to use them correctly!</td>
<td>1 2 3</td>
<td>A B C</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15. Mechanical errors are serious here but, more important, you do not offer us a step-by-step answer to the topic question.</td>
<td>1 2 3</td>
<td>A B C</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16. This is not 101 work. You don't develop any paragraph except perhaps the second one.</td>
<td>1 2 3</td>
<td>A B C</td>
<td></td>
<td></td>
</tr>
<tr>
<td>17. There are excessive misspellings and serious punctuation errors. Diction is imprecise. Essay lacks development.</td>
<td>1 2 3</td>
<td>A B C</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18. Unsupported, illogical reasoning, errors in punctuation, spelling, prn. ref., rhetorical and sentence structure.</td>
<td>1 2 3</td>
<td>A B C</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
COMMENT:

<table>
<thead>
<tr>
<th>OBJ.</th>
<th>SUBJ.</th>
<th>HELPFUL</th>
<th>NOT HELPFUL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>A</td>
</tr>
</tbody>
</table>

19. Remember that one sentence paragraphs may not be clear to a reader because he may need examples, illustrations, or further elaboration to comprehend your ideas.

20. This does not seem to be a very complete response to the questions since you neglect the advantages of a homemade education. The essay lacks organization and paragraphs are very underdeveloped. See Chpt. 5 in McCrimmon. This is very short for the time allowed.

21. Excessive mechanical errors, I could have marked more.
APPENDIX C: STATISTICAL ANALYSIS OF STUDENTS' RATINGS TO SELECTED RATING QUESTIONS

Percentage of Students Evaluating Teacher Comment Objective and Useful Based on a Three Point Scale

<table>
<thead>
<tr>
<th>QUESTION</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>3. How do you know?</td>
<td>16%</td>
<td>52%</td>
<td>32%</td>
<td>44%</td>
<td>31%</td>
<td>25%</td>
</tr>
<tr>
<td>4. Subjective--what is important to one is trite to another,</td>
<td>18%</td>
<td>18%</td>
<td>64%</td>
<td>24%</td>
<td>26%</td>
<td>50%</td>
</tr>
<tr>
<td>5. You end in saying something you do not mean. To say &quot;conversation wasn't present at that time&quot; is not the same as saying &quot;he had no one to talk to.&quot;</td>
<td>42%</td>
<td>29%</td>
<td>29%</td>
<td>55%</td>
<td>39%</td>
<td>6%</td>
</tr>
<tr>
<td>7b. Best word?</td>
<td>19%</td>
<td>34%</td>
<td>47%</td>
<td>47%</td>
<td>28%</td>
<td>25%</td>
</tr>
<tr>
<td>9. Diction/harmful</td>
<td>58%</td>
<td>24%</td>
<td>18%</td>
<td>70%</td>
<td>24%</td>
<td>6%</td>
</tr>
<tr>
<td>painful</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>distressing, etc.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Wrong word</td>
<td>50%</td>
<td>21%</td>
<td>29%</td>
<td>58%</td>
<td>15%</td>
<td>27%</td>
</tr>
<tr>
<td>6. What does this mean?</td>
<td>79%</td>
<td>15%</td>
<td>6%</td>
<td>70%</td>
<td>21%</td>
<td>9%</td>
</tr>
<tr>
<td>7. Reread the assignment--you are not to focus just on Malcolm X, but on the advantages or disadvantages in general.</td>
<td>65%</td>
<td>23%</td>
<td>12%</td>
<td>82%</td>
<td>18%</td>
<td>---</td>
</tr>
<tr>
<td>8. Why is it a disadvantage: you give no explanation of your cause/effect assertion.</td>
<td>62%</td>
<td>23%</td>
<td>15%</td>
<td>85%</td>
<td>9%</td>
<td>6%</td>
</tr>
<tr>
<td>15. Mechanical errors are serious here but, more important, you do not offer us a step-by-step answer to the topic question.</td>
<td>56%</td>
<td>32%</td>
<td>12%</td>
<td>76%</td>
<td>24%</td>
<td>---</td>
</tr>
<tr>
<td>16. This is not 101 work. You don't develop any paragraph except perhaps the second one.</td>
<td>---</td>
<td>29%</td>
<td>71%</td>
<td>26%</td>
<td>21%</td>
<td>53%</td>
</tr>
</tbody>
</table>

60  66
Appendix C, continued.

17. There are excessive misspellings and serious punctuation errors. Diction is imprecise. Essay lacks development.

18. Unsupported, illogical reasoning, errors in punctuation, spelling, pn. ref., rhetorical and sentence structure.

19. Remember that one sentence paragraphs may not be clear to a reader because he may need examples, illustrations, or further elaboration to comprehend your ideas.
Sentence: Conversation, which is important to a good education, was not present at the time of Malcolm's self education.

10% of the teachers did not respond; 30% of the teachers commented on sentence grammar (pl. apos.); 60% of the teachers commended on text structure.

Sample Responses:

1. Absurd! (Viewed as a personal attack on the writer.)

2. Contrary to popular belief, Malcolm X lived in this century from 1929-1965, and conversation was a well developed skill even at that time. Are you really referring to time or do you mean that since Malcolm X was in prison he didn't have anyone with whom he could discuss his education? Be specific! (Viewed as a personal attack on the writer.)

3. You end in saying something you do not mean. To say "conversation was not present at that time" is not the same as saying "he had no one to talk to." (Viewed as helpful 55%, not helpful 6%.)

4. Again, subjective judgement. What is important to one is trite to another. (Viewed as helpful 24%, not helpful 50%)

5. Logic--why not? Explain. This doe not relate to topic sentence.

6. How do you know? (Viewed as helpful 44%, not helpful 25%)
Appendix D, continued

Sentence: His being prison narrowed his in studies, after all, how can you be an anthropologist from a cell.

100% of the teachers commented on sentence grammar
60% of the teachers commented on the text structure

Sample Responses: Sentence Grammar
1. His being prison narrowed in his studies, after all, how can you be an anthropologist from a cell.
2. His being prison narrowed his in studies, after all, how can you be an anthropologist from a cell.

Sample Responses: Text Structure
1. . . (how can you be an anthropologist from a cell.) What does this mean?
2. Logic
3. His being prison narrowed his in studies, after all, how can you be an anthropologist from a cell.

COMMENTS VIEWED BY STUDENTS AS EXTREMELY HELPFUL

1. Reread the assignment—you are not to focus just on Malcolm X, but on the advantages or disadvantages in general. (Viewed as helpful 82%, not helpful 0%.)

2. Why is it a disadvantage: you give no explanation of your cause/effect assertion. (Viewed as helpful 85%, not helpful 6%).
APPENDIX E: PROBLEM-SOLVING CONFERENCE*

PROBLEM-SOLVING CONFERENCE

I. Determine type of problem
   nature, clarity, implications
   what is known, unknown
   audience, expectations
   
   Use information from prior diagnostic conference if available;
   if not, follow same procedure insofar as it applies.

II. Analyze student's difficulty with specific problem
    unfamiliarity with form
    lack of information
    trouble handling material

III. Suggest procedures for solution
    (1) Problems with content
        brainstorm for ideas
        list, make notes, do free writing
        do research, take notes
        do further observation
        self-question: "what do I know?"
        "what can I find?" "how can I arrange?"
    (2) Problems with organizing
        determine patterns implied
        examine models
        introduce informal or formal outlines
        formulate thesis
        do free writing draft
        use outline and thesis as tests after draft
        examine paragraph divisions
          (introduce Christensen paragraph analysis, tagmemic
          analysis, determine topic sentences and illustrations to
          develop)
        introduce principles governing rhetorical patterns; for
        instance,
        classification according to single principle, comparison
        of parallel (comparable items)
    (3) Problems with specific format
        offer models: annotated bibliography, analytical paper
        about literature, literature review, etc.
    (4) Problems with revision, editing
        follow plan for revising, editing conference

*Steward, J.S. & Croft, M.K. (1982). The writing laboratory:
   Organization, management, and methods. Glenview, IL: Scott,
   Foresman & Company.
APPENDIX F

Sample Papers from Schema Transfer Experiment

Two of the sample essays from the schema transfer exercise-experiment are reproduced below. The more obvious grammatical errors have been corrected so that the elements creating coherence can be compared.

The first paper was written by an Afghanistan student who was in the control group. The second paper was written by a Bolivian student who was in the experimental group. The Afghan student has been in the United States for about one year. He is training to be a radiologist at the University of New Mexico. The Bolivian student, a music major, has been in the United States for one year also.

The students' entrance examination scores and other scores on relevant tests were not available when this experiment was done. However, the instructor evaluated these two students as being roughly equal in their ability to write Standard English (both are C students in the class). On the cloze test given after the reconstruction activity with the narrative passage, both students' scores were high: the Afghan student scored XXX out of 72 cloze slots; the Bolivian student, 59 out of 72 cloze slots.

Sample Essay - Control Group

This is how you find information on the Space Shuttle in the library, and you don't waste time. First, you find the Reader's Guide or other index books that will help you. If you don't know where [this guide] is, you will ask a librarian. Then look in the Reader's Guide for "space," "space travel," and "transportation." Next, you jot this down. Then check the library listing of periodicals, and you find which periodicals are in the library. The, cross out periodicals that you don't find in the periodical listing. After that, you must write down call numbers of the periodicals that are available. Next, check the library floor plan and know where periodicals are kepts. After that, find the periodicals and then you find the articles in the periodicals, and you should scan the articles. This might be helpful. Lastly, duplicate the articles if helpful.
Don't waste time when you have to write a paper. If you follow a few simple steps, you should save time finding information on the Space Shuttle. First, find the Reader's Guide or some other index. If you do not know where it is, ask a librarian. Next, look in the Reader's Guide under "space," "space travel," and "transportation." You should jot down the possible articles you find. After that, you must check the library list of periodicals and see which ones are available. It is a good idea to write down the call numbers of the periodicals which are available to save time. Now, check the library floor plan. You can't run all over the library and hope to find the periodicals by chance. When you have found them, look up the articles. You might scan them quickly to determine if they are helpful. You're almost finished now. Before you leave, you can duplicate the articles you think are most important, so you don't have to go back to the library.