Discourse Grammar for Academic Reading: Textual Relationships

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Abstract
The purpose of this paper is to propose a method of reading instruction from a discourse perspective. The current practice of reading instruction is usually confined to explanation of vocabulary and sentence structure. This kind of instruction neglects the communicative nature of reading, which entails that readers not only passively decode the meanings of words and sentences but also actively work on the identification and understanding of the main ideas of the text. The present study does not dismiss the importance of language forms in reading; however, it is not confined to sentential grammar. This paper moves a step further to explore the roles of words and sentences in relation to the whole text. In the approach, reading instruction involves both top-down global and bottom-up local analyses. The global level instruction presents the hierarchical structure of a text by describing how sentences are strung together by textual relationships to form the text. At the local level, this approach, on the other hand, teaches the function of discourse-organizing words in understanding textual relationships. With such two-way instruction, EFL students know what linguistic clues they should look for and how they may interpret the meanings and functions of the clues as they tackle the reading task.

Key Words: reading instruction, discourse grammar, textual relationships, discourse-organizing words
INTRODUCTION

The teaching of reading has not received due attention since the prevailing of the communicative approach in Taiwan. First, with the purpose of helping students to communicate appropriately and effectively in daily life, the approach itself implies a focus on spoken language listening and speaking in English learning and teaching. Further, the policy of extending English teaching to the elementary school level leads to an emphasis on the primary oral language skills so as to create contexts for the children to use English in daily communication and to maintain their interest in learning English. Second, a lack of efficient reading instruction methods leads to questions about the effectiveness and necessity of reading instruction (Tsai, 1999; Tsao, 2004). Even though less noticed, literacy used to and still does retain its role in language learning; yet how to conduct effective reading instruction seems to be always the problem of English programs here in Taiwan. This problem results from different factors at different times. In times when the grammar translation method and the audio-lingual method prevailed, both of which methods actually are still used in many classes now, reading instruction basically involved grammar explanation and practice. The development of reading skills was not the focus of the class. This situation has improved when it comes to the current communicative language learning approach. The requirements for fluency and accuracy in the approach, when applied to reading activities, lead teachers to notice skills such as skimming, scanning, and making inferences, which are reading skills used in real communication. This attention to reading skills is a great leap in pedagogy.

However, an awareness of these skills is not enough for foreign
language learners. Linguistic knowledge about the functions of language forms is equally important. For example, when performing the skimming skill, if readers know what language forms, including vocabulary and structures, tend to be used for main ideas, they will read effectively by focusing on the sentences that carry the important information. At the same time, a lack of such knowledge may result in barriers to the practice of reading skills. Students will have difficulty distinguishing main ideas from supporting ideas, tracing the development of topics, or deciding the structure of the passage.

It is thus the point here that the importance of reading skills should be recognized, and with this understanding, we should spare no efforts in developing effective pedagogical methods. As reading is to reach the correct interpretation of the points in the whole text, reading instruction is not confined to sentence grammar. Instead, readers need to move one step further to understand the grammar of text or discourse. In this paper, we propose a teaching method that incorporates discourse grammar into reading instruction. The rationale is to teach students the links between language forms and their functions. By doing so, we may show students what language forms to look for when they perform reading tasks. The relevant topic in discourse grammar for this study is the understanding of textual relationships, an effective tool for attacking texts from both the macro/global and micro/local viewpoints in analyzing the organization of a text.

LITERATURE REVIEW

There has been a long history of research on reading from
different views. One of the major approaches attempts to provide a psychological explanation of the reading process. Before researchers argued for the need to develop reading theories in the mid-1970s, the methods used in the teaching of reading were grammar analysis and vocabulary learning. Under the influence of psychological behaviorism and linguistic structuralism in the 1940s and 1950s, reading was said to be a bottom-up process. In the bottom-up process, the reader relies on the linguistic forms to figure out the meanings conveyed by words, phrases, clauses, and sentence patterns. In other words, this process starts from the analysis of concrete linguistic forms, with the final aim being the general understanding of the ideas carried by the composite of the sentences—the text (Alderson, 2001; Silberstein, 1987). This approach toward the reading process was challenged by Goodman (1967) and Smith (1971). Goodman (1967) regards reading as “a psychological guessing game,” in which readers not only depend on the language forms but also their world knowledge to generate their goals and expectations at the top level of the reading process. Based on the top framework, readers confirm their prediction by the messages conveyed by the linguistic forms at the bottom level. To be more specific, the top-down process appeals to the background knowledge of the reader in relation to the passage, such as what they already know about the topic, the people, the places or the events mentioned in the passage. All such information constitutes a framework, based on which readers predict the content of the upcoming text and decide the best interpretation of the words, phrases, clauses, sentences, and their combination. Both the bottom-up and the top-down approaches show that reading is a very complex psychological process, in which readers may start from the point of local, concrete language forms or from the point of the
global, abstract frame to reach a full comprehension of the text. Both approaches actually represent different aspects of the reading process. Researchers thus propose that the reading process can be described as one where the reader uses an interactive approach to understanding the text. They point out that effective readers usually integrate both top-down and bottom-up approaches to interpret texts (Murtagh, 1989; Stanovich, 1980).

At the same time, another group of researchers has attempted to identify the specific skills underlying the reading activity. This branch of study has contributors not only from language teaching but also from language testing. Unlike speaking and writing abilities, in which language learners produce more concrete outcomes, the reading process as a psychological process can not be observed directly. However, there is always the need for teachers to know what their students are doing, and what they have achieved. Descriptions of reading ability based on different considerations are thus provided. Based on related studies, we propose a description of what fluent readers can do (Grabe, 1991; Heaton, 1990; Munby, 1978):

1. Recognize words.
2. Understand relations between words or phrases within a sentence.
3. Understand relations between sentences.
4. Skim for main ideas.
5. Scan for specific information.
6. Tell facts from theories.
7. Make inferences.
8. Anticipate the content of the following parts.
9. Generalize the conclusion.
10. Read critically.
The description explains the results of the use of reading skills, which can be taken as the goals of teaching or the targets of assessment. In fact, similar descriptions have long been used as a basis for textbook writing, curriculum design, and measurement development.

Another well-received approach relates reading skills to communicative language abilities (Bachman & Palmer 1996; North & Schneider, 1998). In this approach the descriptions of reading ability are classified into four categories:

1. Strategic competence in reading: using different speeds and resources flexibly for different tasks
2. Linguistic competence in reading: having knowledge of vocabulary, idioms, and grammatical structures
3. Discourse competence in reading: recognizing discourse organization and argument development
4. Sociolinguistic competence in reading: appreciating culture-bound elements in a reading

This approach, without referring to the specific can do’s, provides a more comprehensive description of the reading tasks in real life, all of which involve cognitive and social aspects.

The studies on reading reviewed thus far involve the description of general reading ability. However, what concerns us more is the situation of English reading instruction for EFL learners in Taiwan. As mentioned in the introduction, reading instruction in Taiwan is far from satisfactory. Research points out the fact that Taiwanese students are not adequately taught to read independently outside class (Liaw, 1998; Wu, 1990), and they do not read for interest or fun (Tsai, 1999). There is even a prediction that it may take more than fifty years for Taiwanese people to attain the same English proficiency as
Singaporean learners (Her, 2002). To solve these problems, researchers have proposed options regarding the selection of teaching material, the design of reading activities, and the assessment of reading ability from a pedagogical perspective. However, for academic reading in an EFL context, an applied linguistics approach toward teaching reading may be what we need now. As academic readers are also adults, the reading tasks they perform usually require real-world knowledge as well as language knowledge to analyze, synthesize, and evaluate the texts in reading tasks (Tsao, 2004). In the case of academic reading, linguistic knowledge about words, idioms, and sentence structures will not suffice. It is discourse grammar that matters in the interpretation of texts (Huang, 2002; Mackay, 1979).

DISCOURSE GRAMMAR IN THE ACADEMIC READING CLASS

Discourse grammar, from the perceptive or the interpretive perspectives of language communication, is a set of principles that helps readers interpret the relationships between sentences. From the viewpoint of spoken and written production, the same set of discourse principles serves as guidelines that language users can follow when they are making choices among language forms to produce appropriate and coherent sentences or utterances. In its definition, discourse grammar is more concerned with appropriateness than correctness (Hughes & McCarthy, 1998; Widdowson, 1983). In real communication, correct sentences do not guarantee effective communication; whether a sentence fits the context plays no less an important role (Celce-Murcia, 1980;
McCarthy, 1991; Östman, 1999; Van Dijk, 1985). For example, the following three sentences are all grammatically well-formed sentences:

(1)  
   a. There is a flower bed in the middle of the lawn.  
   b. A flower bed is in the middle of the lawn.  
   c. In the middle of the lawn is a flower bed.

The three sentences denote a similar meaning. However, if a context is provided, we find that not all of them match the communication need. Imagine a person writes to his or her friend and the letter begins as follows:

Dear Joan, I am sitting at my desk writing to you. Outside my window is a big lawn, and ____. It was full of daffodils and tulips in the spring… You’d love it here. You must come and stay sometime… (McCarthy, 1991, p. 53)

In this context the best or the most appropriate sentence to fill the gap is (1c), because in a description of a place, an orientation expression like “in front of me,” “to the left,” or “next to the door” should go first to have readers be prepared for information about locations. As for the “There” insertion structure of (1a), it is usually used at the beginning of a discourse unit to introduce something for the first time. (1b) has “a flower bed” as the subject, a position usually preserved for given or old information, which is not the status of the flower bed.

The above definition of discourse grammar reveals not only the nature but also the function of discourse grammar in language learning. Awareness of discourse grammar facilitates the acquisition of the four skills of listening, speaking, reading, and writing. In the
scope of the present study, we will narrow down our goals and focus on applying the notions of discourse grammar to reading. In particular, the concept of textual relations is a useful instrument for readers to solve the problems they encounter. Textual relationship is defined by Hatch (1992) as “the type of connection between two portions of text” (p. 189). The concept of textual relationship is realized and reflected by linguistic forms (McCarthy, 1991). Therefore, if readers are equipped with the discourse concepts, they will be sensitive to the signals that indicate textual patterns when utilizing the interactive top-down and bottom-up processes. It is easier to read a passage if readers have a clear picture of how it is organized. With knowledge of the structure of the text, the reader can easily grasp the main ideas, distinguish the major and supporting ideas, and locate specific points.

Textual Relationships

When we are reading texts composed of stretches of sentences, we deal with not only linear intersentential relationships but also the hierarchical structure of the sentences, in which the neighboring sentences at the lowest level are connected to form a larger unit at the next level; and then several units of the same level further constitute even larger units at the next higher level. It is in this way that individual sentences are woven into a text. This hierarchical structure is established when multiple sentences are strung together. Take the following short string of sentences as an example:

(2) ¹Dinosaurs from the distant past! ²Space battles from the distant future! ³There has been a revolution in special effects, and it has transformed the movies we see. (Richards, Hull, & Proctor, 2001, p. 91)
Text (2) is composed of three sentences, and the relationships among them differ. To be more specific, Sentence 2, though in the middle of the sequence, does not hold an equal distance between the previous and the following sentences. First, Sentences 1 and 2 are more closely related to each other: they both provide examples of the results brought about by special effects. Then Sentence 3 represents a statement that generalizes the common feature of the events described in the previous two sentences, which are both the products of new special effects. Thus, by analyzing the closeness of the meanings represented by the sentences we may obtain the hierarchical discourse structure of the text. At the same time, we find that this structure is also reflected by the linguistic forms of the sentences. The first two sentences, both of which end with an exclamation mark, are in parallel form, a device often used to carry parallel meanings. Thus, both the form and the meaning of the three sentences show that the sentences are connected to each other with a two-level hierarchical structure: Sentences 1 and 2 at the first level form a unit, and this composite unit is connected to the third sentence at the higher second level.

In Text (2), it is observed that the relationships between sentences in a unit can be the one between examples (Sentences 1 and 2) and a general statement (Sentence 3). There are actually many other textual relationships or patterns existing between discourse sentences or units. It is thus important for reading teachers to analyze the semantic relationships in a text and present them to learners. To make the model operationally feasible, the relationships taught should be comprehensive enough to cover all kinds of text patterns, and also be representative in a general way so that learners will not be caught up in details and fail to catch the whole picture.
With this rationale in mind, we collect and analyze rhetoric patterns described in discourse grammar research and reading/writing instruction textbooks (Arnaudet & Barrett, 1990; Langan, 2004; McCarthy, 1991; Morenberg & Sommers, 2003). The finding is that the textual relationships of English texts can be exemplified by eight patterns: 1. General-example(s), 2. General-specific(s), 3. Group-member, 4. Problem-solution, 5. Question-answer, 6. Cause-effect, 7. Time sequence, 8. Claim-counterclaim. Each pattern requires two parts for the relationship to be established. The patterns of General-example(s) and General-specific(s) describe texts which start with a general statement about an idea or a subject. This statement of points is usually general or abstract since it is unlikely to fully explain an idea or describe one subject in a single sentence. After the general statement, it takes more sentences to develop the idea. Thus, in the General-example(s) pattern the sentences which follow may provide examples to illustrate the nature of the idea. Or in the General-specific(s) pattern, they may describe specific details that characterize the features of the general idea or subject.

The third pattern of the Group-member relationship is usually found in texts where writers intend to introduce members of a general category. One example is the brochure of a museum or library. The text usually starts with a general description about the collections or materials they own; then the brochure introduces, one by one, each type of collection.

The next two patterns, Problem-solution and Question-answer, correspond to the cognitive process human beings use to deal with life. We always have problems first, and then find the solutions; we ask questions about something we do not know or are not sure about, then search for answers to the existing questions. Writers make use of
this process, too. In most cases, even though the single purpose for them to write is to propose a solution or an answer, they still have to point out the problem or raise the question in the beginning; otherwise no readers would understand them.

Other patterns frequently found in exposition essays are Cause-effect and Time sequence. Like the Problem-solution and the Question-answer patterns, the Cause-effect pattern also follows the sequence of events in life. However, instead of providing answers, this pattern is used when the author explains causal relationships between events. Many scientific reports are composed in this pattern. The Time sequence pattern is found in narration or storytelling. Narrators describe events or develop the story line by representing things in the order of their occurrence.

The last pattern, Claim-counterclaim, is used mostly in argumentation. In order to convince readers, authors have to represent the pros and cons first before explaining their own stances. The Claim-counterclaim relationships are found between the sentences carrying different or opposing ideas.

The sequences of the two parts in the textual relationships given in (3) represent the preferred order of the components because these sequences correspond to conventional English rhetoric relationships. The basic notion of writing that learners of English need to acquire is the distinction between topic sentence and supporting sentences. There is usually one topic sentence in an English paragraph. This topic sentence indicates the main idea of the paragraph. The other sentences of the same paragraph are supporting sentences that develop the main idea. And because of the requirement for unity, the supporting sentences are all about the same idea and nothing else. Furthermore, it is also a principle of English paragraph writing that
the topic sentence be placed at or very near the beginning of the paragraph, and then the supporting sentences come after to develop the idea. Comparing the paragraph structure to the textual relationships, we find a correspondence where the topic sentence is just like the general statement of the General-example(s) and General-specific(s) textual patterns with the supporting sentences providing examples or specifics which come afterwards. It is a global top-down approach that provides a frame first then the flesh. However, the sequence is not fixed and can be changed. Just as many skillful writers choose to put the topic sentence in the middle or at the end of the paragraph to emphasize special considerations, the general statement of the General-example(s) and General-specific(s) patterns may come after examples or specific details. Text (2) is an example. In this short text, the examples go first in the first two sentences; then the author gives the general statement in Sentence 3. Examples of this pattern are frequently found in advertisements to attract viewers’ attention.

Thus far, the study has presented types of textual relationships and their functions. In the following two sections, we will further discuss the application of textual relationships to instruction in reading English.

**Textual Relationships in Reading Comprehension**

This section will provide a way to approach the reading task from the discourse perspective. Many studies and reading textbooks provide abundant resources on teaching reading. However, when people refer to reading skills, they usually talk about successful comprehension by the way of getting main ideas, finding supporting details, telling fact from theory, or making inferences. Few of them
refer to the linguistic knowledge required to perform these tasks. Yet, for foreign language learners, that knowledge actually is equally important as the skills. They need to know how English writers organize information, and what kind of language forms are used to signal text organization. Below is an example showing how students can benefit from the knowledge of textual relationships in reading comprehension.

The reading passage and comprehension question are from a reading-skill textbook:

(3) 1Who talks more—men or women? 2Most people believe that women talk more. 3However, linguist Deborah Tannen, who has studied the communication style of men and women, says that this is a stereotype. 4According to Tannen, women are more verbal—talk more—in private situations, where they use conversation as the “glue” to hold relationships together. 5But she says, men talk more in public situations where they use conversations to exchange information and gain status. 6Tannen points out that we can see these differences even in children. 7Little girls often play with one “best friend”; their play includes a lot of conversation. 8Little boys often play games in groups; their play usually involves more doing than talking. 9In school, girls are often better at verbal skills; boys are often better at mathematics. (Kirn & Hartmann, 2002, p. 143)

This passage may be analyzed by adopting both top-down and bottom-up methods to obtain the overall organization or textual relations of the sentences. There are nine sentences in the text and they can be further grouped into three major parts that constitute the complete passage. The first unit includes Sentences 1, 2, and 3. The first two sentences are related to each other by the question-answer textual relationship: Sentence 1 raises a question and Sentence 2 provides a possible answer, which is, however, not the intended
answer. The author’s real stance is indicated in the third sentence, which is connected to the second sentence by the claim-counterclaim relationship denoted by the adverbial conjunction “However.” Since what comes after “however” usually represents a counterclaim which differs from the preceding claim and introduces an even more important point, Sentence 3, as led by “however,” thus has the potential of being the topic sentence of the passage, saying that people have a stereotypical idea about the style of communication of men and women that actually does not reflect the real situation.

Unit 2 covers Sentences 4 and 5, which begin with either a phrase or a subject referring to Tannen: “According to Tannen” in Sentence 4 and “But she says,” in Sentence 5. This device is used to signal that the author is going to explain Tannen’s ideas about the point stated in Sentence 3. Furthermore, the adversative connector “But” between the two sentences indicates that the sentences are going to represent the opposing situations of the two genders: men and women talk more in different occasions. Thus, the second unit is related to the third sentence by the General-specific(s) textual relationship.

So far, the focus of the passage has been placed on the communication styles of men and women. However, in the third unit, the author shifts to a related topic with a different focus: the communication style of boys and girls. This topic does not directly pertain to Sentence 3 as Sentences 4 and 5 do, but it does provide supportive evidence for the difference between men and women. This indirect connection is indicated by a dotted line linking Unit 3 and Sentence 3 in Figure 1. The third unit covers four sentences which are connected to Sentence 3 by the General-specific(s) relationship. As for the internal structure of Unit 3, the General-specific(s)
relationship is again applied. The first sentence, Sentence 6, is a
genral statement that points out that differences exist between boys
and girls. Then, Sentences 7 and 8 give specific explanations of girls’
and boys’ communication behaviors respectively. The unit ends with
a conclusive remark in the last sentence, Sentence 9, which says that
girls perform better at verbal skills. The textual relationships between
sentences of the passage are summarized in Figure 1. The textual
patterns in Figure 1 do not represent the only way to analyze the text.
For example, other readers may choose to identify Sentence 3 as the
first sentence of the second unit, since it begins with a connector
“however,” which usually serves as a demarcation marker of
discourse units. The point is that readers should be aware of the
textual patterns underlying strings of sentences.

![Figure 1]

**Textual Patterns of Text (3)**

The above passage is used as an example of practice by which
students learn to locate main ideas and to distinguish main and
supporting information. The passage is followed by a reading
comprehension question in the textbook that asks readers to choose the main idea of the passage from among five sentences:

(a) Women talk more than men.
(b) It’s a stereotype that women talk more than men.
(c) Men and women have different styles of talking, which may begin in childhood.
(d) Little girls and little boys have different ways of playing.
(e) Women talk more in private, and men talk more in public.

(adapted from Kirn & Hartmann, 2002, p. 143)

To see how college students perform in this task, the researcher incorporated the reading comprehension question into the mid-term exam of twenty Commerce College Freshmen at a national university before they were taught the textual relationships. No students chose (a) or (d), and only one chose (b). The number of the students that chose the correct answer was also quite small: only seven students chose (c), the correct answer. However, twelve students chose (e). The fact that Option (e) has a strong distractive power could be owing to the failure of the students to identify the textual relationships in the text and thus being misled by the nature of the first sentence. The passage starts with a question at the beginning: “Who talks more—men or women?” and since most students have been taught about the concept of the topic sentence in their high school English class, they might simply take the question as the representation of the main idea. Among the five options, Option (e) is related to the question as it provides the answer to the first sentence. Therefore, most students chose (e) as the sentence stating the main idea of the passage. If the students applied text analysis skills, they would see that Option (e) only covers the content of the first two units of the passage and the point of Unit 3 is left out. Option (c), on the other hand, presents a more comprehensive statement of the main
idea. Thus, the problems with finding the main idea can be solved with the aid of textual analysis.

**Reading to Learn and to Integrate**

This section will take examples from the reading items of the new TOEFL, TOEFL Internet-based testing (iBT), to illustrate how the knowledge of textual relationships may facilitate academic reading. For decades, the TOEFL has commonly been used by universities across the USA as a tool to decide whether foreign students will be able to demonstrate a satisfactory performance in an English-medium academic curriculum. However, it has also been criticized in that the scores test-takers attain do not have predictive validity; in other words, the scores do not necessarily accurately predict a test-taker’s performance in the curriculum. In response to this criticism, Educational Testing Service (ETS) commenced a series of studies, and presented three major directions of reform. The first change is to include performance tasks requiring integrated skills. The second is to design test materials that are close to the materials used in an academic context. The other change is to make the interpretation of the test scores more transparent to test users (Enright, 2004). The first two moves are related to the design of test items, which is also an indication that ETS has redefined the constructs of language skills in an academic setting. Reading itself does not stop at the comprehension of texts. It can provide input for writing or speaking, and this kind of function is closer to the role of reading in a real academic setting, where students read for a purpose. To demonstrate that they have learned from the reading, students at least need to take notes, or write reports and summaries on what they have read. The new TOEFL, thus, assesses the performance of test-takers
through the use of integrated skills. This new type of item will result in better predictive validity and will cast a positive backwash effect.

On the basis of the new directions, the TOEFL research report (Enright, Grabe, Koda, Mosenthal, Mulcahy-Ernt, & Schedl, 2000) delimits the goals of reading as: (1) finding information, (2) achieving basic comprehension, (3) learning from texts, (4) integrating information. Among these purposes, the last two are newly proposed and are beyond the scope of the traditional TOEFL. The goals conform to the new directions of TOEFL that emphasize the evaluation of actual task performance in an authentic context. Accordingly, two new types of tasks are presented in the new TOEFL: completing charts and writing synthesis.

The first new task, chart completion, is for examinees to demonstrate how they can learn from texts, the third goal for reading in the TOEFL report. The chart is about the structure of a text. Here is one example of the reading-to-learn task: In Trites and McGroarty’s (2005) research on the validity of the new tasks, the participants were given 12 minutes to read a passage of about 1,200 words. Then, four more minutes were given for note-taking. Next, the participants were asked to complete a chart within 15 minutes. At this stage, the examinees could refer to their notes but the passage was removed. To successfully complete the chart, the participants needed to list relevant ideas, categorize the ideas, identify the main idea, and finally decide the relationships among the ideas. The chart may be a summary chart, or a chart of textual patterns. In a summary chart, examinees may be given a topic sentence. Then they are asked to

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1 In actual practice, examinees may be given 40 minutes to read two passages each containing about 600 words, to answer 12 multiple choice comprehension questions for each passage, and to complete a summary chart for each passage.
choose three or four sentences from six or more choices that indicate the major ideas of the text. As for the chart of textual patterns, examinees may be required to identify the problems, solutions, causes, effects, or examples in the text and put them in the right boxes of the chart. In either case, the task of chart-completion requires discourse knowledge of textual relationships.

The second new task is writing synthesis. It aims at the integration of information, the fourth reading goal in the TOEFL report (Enright et al., 2000). The task is for the test-takers to identify the macro structures of texts, find the connection of ideas from different texts, and finally produce a synthesis based on the analysis of the texts. According to Trites and McGroarty (2005), the task has three parts. In the first part, test-takers are given 12 minutes to read two passages each of about 600 words which are both about similar topics; next, four minutes are allowed for note-taking; finally, the examinees have 15 minutes to write an essay about the information indicated in the two passages. At the final writing stage, the passages are removed, so the examinees may only refer to their notes. But they are not just expected to repeat the points of the passages. Instead, they are expected to connect and integrate the ideas or arguments of the original texts and explain how they are related to each other.2

Although the item belongs to the writing component, reading skills are involved in providing resources for writing. In order to synthesize the ideas of the texts, readers need to be able to identify textual relationships first. Based on the textual structures, readers can further locate where main ideas occur, identify what they are, and figure how they are connected to each other.

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2 The input of the synthesis writing task of the new TOEFL consists of a written passage of 250-300 words, and a spoken lecture for 1-2 minutes on the same topic.
INSTRUCTION IN TEXTUAL RELATIONSHIPS

In the previous sections, we have demonstrated the nature and the importance of textual relationships for the reading task in the academic context. This section will explain how textual patterns are realized through language forms. It is proposed that two major categories of discourse-organizing words, discourse connectors and other discourse-organizing words, can be used to provide ways of identifying the linguistic clues in textual patterns.

Discourse Connectors

Studies on discourse structure have established general relationships among discourse units. For example, in a study on the structural relationships of texts, Stalter (1978) found that discourse units are connected to each other with four basic relationships represented by four types of connectors: “and,” “but,” “and then,” and “therefore.” These four types of relationships are similar to the findings of another study on semantic categories of conjunctions by Halliday and Hasan (1976). According to them, the conjunctions used to link discourse units are divided into four categories according to the semantic relationships they represent: additive, adversative, temporal, and causal. Figure 2 depicts the correspondence between Stalter’s (1978) structure relationships and Halliday and Hasan’s (1976) semantic categories of conjunctions. Figure 2 shows that the abstract conceptual ideas of textual relationships can be understood through the use of concrete language forms (i.e., conjunctions). Thus, the conjunctions do not connect sentences or clauses only. They also perform a connecting function in texts where conjunctions link discourse units together to form a text.
<table>
<thead>
<tr>
<th>Structure Relationships</th>
<th>Conjunction Categories</th>
</tr>
</thead>
<tbody>
<tr>
<td>And</td>
<td>Additive</td>
</tr>
<tr>
<td>But</td>
<td>Adversative</td>
</tr>
<tr>
<td>And then</td>
<td>Temporal</td>
</tr>
<tr>
<td>Therefore</td>
<td>Causal</td>
</tr>
</tbody>
</table>

**Figure 2**

**Correspondence Between Structure Relationships and Conjunctions**

Following the idea that each textual relationship has its corresponding conjunction type, teachers are suggested to introduce the discourse functions of conjunctions and make it the point of departure for instruction in structure relationships. The present study adopts Halliday and Hasan’s (1976) framework to classify conjunctions into four categories and define their discourse functions. However, two modifications are made to serve the purpose of this study. First, Halliday and Hasan’s treatment of conjunctions is still confined to their roles of sentential level connection. In the present study, however, the focus is on the linking function among discourse units. Furthermore, as the term “conjunction” has long been used in the expression of “sentence conjunctions” and as the connecting words extend beyond the traditional conjunctions to include prepositional phrases like “in addition” and adverbial words like “consequently,” the present study uses the term “connectors” instead to name the connecting words and phrases.
Additives. The first class of connectors is the additives. The additives are used to connect units talking about the same point, and representing similar, parallel, and mutually supportive ideas. Connectors belonging to this group are frequently used to organize texts that explain one general idea by providing specific features, members, or examples for the idea. The following text illustrates the use of additives:

(4) There are several solutions to the problem of sick-building syndrome, among them cleansing the building. First, of course, experts must determine the specific cause in any one building. Then workers probably need to take out carpets, wallpaper, and ceiling tiles in order to remove mold and bacteria. Also, they need to clean out the air conditioning system and completely rebuild the system of ventilation. They should remove synthetic products and bring in natural products, instead, if they are available. (Kirn & Hartmann, 2002, p. 30)

This text contains three additives which describe three specific jobs relating to “cleansing the building.” With this class of connectors in mind, readers may easily decide the main idea, presented in the beginning before the details, as that of solving the problems of a sick-building by cleaning the building, which is also the general statement for the three details. In other words, in the General-specific(s) textual pattern, the general statement represents the main idea; the other sentences, led by the additives, serve as supporting sentences.

Adversatives. The adversatives represent another group of connectors that are used to introduce a discourse unit representing a point different from or opposite to that made in the foregoing unit. Members of this category include “but,” “however,” “yet,” “actually,”
and many others. With such a nature, adversatives are usually found in the Claim-counterclaim textual pattern. And they frequently serve as discourse boundary markers which often lead units carrying important information or major ideas. Text (5) demonstrates the typical function of adversatives.

(5) People have worried about smog for many years, and the government has spent billions of dollars to try to clean up the air of big cities. But now we find that there is no escape from unhealthful air. Recent studies have shown that air inside many homes, office buildings, and schools is full of pollutants: chemicals, mold, bacteria, smoke, and gases. These pollutants are causing a group of unpleasant and dangerous symptoms that experts call “sick-building syndrome.” First discovered in 1982, sick-building syndrome most often includes symptoms similar to the flu (watering eyes, headaches, and so on) and respiratory infections such as tonsillitis, bronchitis, and pneumonia. (Kirn & Hartmann, 2002, p. 29)

In this text, the sentence/unit before “But” points out the fact that smog has long been a concern of both ordinary people and the government. The content of this statement or claim, however, is not the real problem. According to the author, the “unhealthful air” inside buildings is a greater threat to health. The warning is presented in the unit led by “But” and all the following sentences concentrate on the sick-building problem. In other words, in this Claim-counterclaim pattern, the main idea is presented in the counterclaim part and the adversative “but” links the counterclaim to the claim. The Claim-counterclaim pattern is one of the most common textual patterns in expositions. When this pattern is used, the main idea or point is always put in the second part, the counterclaim. This principle finds support in both text (5) and text (3), where the authors’ points are given in the units introduced by “but” and “however”
respectively. The pedagogical implication is that students can effectively locate the main idea of a passage if they have been taught this particular feature of adversatives.

**Temporals.** Temporals indicate the sequence of stages or steps of a procedure, an event, or a story. Sequential temporals include “first,” “next,” “after that,” “finally,” etc. Some temporals are used to show the time when the event happens. Temporals which serve this function include “when,” “from now on,” “now,” and “just then.” By setting the time frame of events, temporals perform a connecting role in a discourse to link the units together. Below is a text for illustration:

(6) These days, urban lifestyles seem to change very fast. It is more than just clothing and hairstyles that are in style one year and out of date the next; it's a whole way of living. One year people wear sunglasses on top of their heads and wear jeans and boots; they drink white wine and eat sushi at Japanese restaurants; for exercise they jog several miles a day. However, the next year everything has changed. Women wear long skirts; people drink expensive water from France and eat pasta at Italian restaurants; everyone seems to be exercising at health clubs. Then, suddenly, it has changed again. Men shave their heads and wear earrings; people wear only natural fabrics (safe for the environment); they drink gourmet coffee and eat Thai food; for both leisure and exercise, they go inline-skating. (Kirn & Hartmann, 2002, p. 85)

Text (6) contains four temporals. Each temporal introduces a unit describing a particular stage when major changes of lifestyle happen. The temporal phrase “These days” leads sentences describing a phenomenon that lifestyles change rapidly, which actually is the main idea of the paragraph. In order to convince readers of this point, the author provides details and examples to illustrate the changes over
time. The temporals like “One year,” “the next year,” and “Then” set the time frames of three different periods. Referring to the temporal connectors, readers are able to follow the evolution of lifestyles.

**Causals.** The causal connectors can be divided into two subcategories: a group of cause connectors and a group of effects. It is quite interesting that the group of causes actually has far fewer members than the group of effects. For the former group we find only “because” and “for” to be used at or above the sentence level. There are other phrases for causes like “owing to” or “due to,” but they are used within sentences rather than at the discourse level. On the other hand, we find many connectors of effects used at the discourse level: “consequently,” “therefore,” “as a result,” “hence,” “for this reason,” etc. Further research is needed to examine the significance and implication of this observation. In the following text, we see the function of causals as discourse connectors.

(7) Instead of firing workers at times of hardship, some companies slice a few hours off everybody’s workweek and pay. Sharing work in this manner has positive effects on workers and the company. Workers are less anxious about being unemployed and feel they are part of a community of people working together. In addition, quality remains high because the company retains all of its experienced workers, rather than firing them to save money. Consequently, because they are fully staffed, companies that have instituted work sharing are better equipped to meet increased demand when business recovers. Also, when times get brighter, workers are more willing to put in long hours for a company that helped them through a tough spell. (Langan, 2004, p. 253)

In Text (7), we can see that the whole passage is divided into two parts, with the first part focusing on the company’s policy in hard times, and the second part on the effects of such a policy. The two
parts are connected by the causal word, “consequently.”

**Other Discourse-organizing Words**

In addition to discourse connectors, there are groups of discourse-organizing words that are used in different textual patterns. They are all content words belonging to grammatical categories of nouns, verbs, adjectives, adverbs, etc. In a particular text, words carrying similar textual relationships occur repeatedly in different parts of sentences to organize the discourse (McCarthy, 1991). If readers recognize those words, they can identify the textual relationships accordingly. Below is an example of the use of discourse-organizing words:

(8) Islands are geographical formations that are completely surrounded by water, yet many islands are covered with a rich assortment of plant life. It may seem surprising that so much plant life exists on many islands, yet there are surprisingly simple explanations as to how the vegetation has been able to establish itself there. **Some** islands were formerly attached to larger bodies of land, while others were created on their own. Islands that were created when flooding or rising water levels cut them off from their neighbors often still have the plant life that they had before they were cut off. **In cases** where islands formed out of the ocean, they may have plant life from neighboring lands even though they were never actually attached to the neighboring lands. Winds carry many seeds to islands; some plants produce extremely light seeds that can float thousands of feet above the Earth and then drift down to islands where they can sprout and develop. Birds **also** carry seeds to islands; as birds move over open stretches of water, they can serve as the transportation system to spread seeds from place to place. (Phillips, 2006, p. 94)

Text (8) is a reading exercise for chart completion used in the new TOEFL. Test-takers are asked to choose three among six choices that
tell the supporting ideas of the topic. The main idea statement is given first as, “This passage discusses the ways that plant life is able to develop on the island.” Then six choices follow:

1. Some seeds are able to float great distances in the air.
2. Some plant life existed before islands were cut off from larger bodies of land.
3. Some islands have many different varieties of plants.
4. Birds sometimes carry seeds to islands.
5. Some islands were created when rising water cut them off from larger bodies of land.
6. Some plant seeds are carried to islands by the wind.

(Phillips, 2006, p. 94)

As the readers may have found, all the choices are mentioned in the text. But only three of them are important ideas. In order to complete the task, readers have to identify the structure of the text. The phrase “discusses the ways” appearing in the statement of the main idea implies the passage to be of an additive structure. However, in the passage, only one additive connector—“also”—is used. To establish the text structure, other organizing words are used—the determiner “some,” and the prepositional phrase “in cases.” The two words/phrases, though belonging to different grammatical categories, carry the similar meaning of “addition.” And by examining the sentences after the three organizing words, readers immediately identify the three specific ways for the plants to survive: they were already existing on the island before it was cut off; the spreading of the seeds by the wind; and the transporting of the seeds by birds. In other words, this additive structure is developed by way of the General-specific pattern.

Let’s take another example to see how discourse-organizing words operate:
Vitamins are powerful substances, as seen when people consume too little or too many. A deficiency of vitamin A can lead to blindness. A lack of the B-vitamin niacin can cause symptoms of mental illness, and an absence of the B-vitamin thiamin can eventually produce nerve, heart, and brain abnormalities. Doing without vitamin C can lead to scurvy, and failing to take in vitamin D can retard bone growth. The consequences of deficiencies are so dire, and the effects of restoring vitamins so dramatic, that people spend billions of dollars every year on vitamin pills. They are advised to remember that many vitamins hold the potential for toxicity if taken in amounts that far exceed recommended dietary allowances. (Langan, 2004, p. 237)

This passage is obviously of the Cause-effect structure. Again, we find no connectors in the text. But the repeated nouns and verbs denoting the “effects” show that the passage is mainly about the effects of “too little or too many” vitamins.

The above two examples demonstrate that groups of words associated with certain meanings can also perform the task of establishing textual relationships as connectors. In addition to the General-specific and Cause-effect text organizing words, several other groups of words have been proposed in different studies (Francis 1986; Hoey, 1983; Jordan, 1984; Winter 1977). Below are lists of organizing words for some textual relationships:

1. Problem-solution: problem, dilemma, difficulty, demand, issue, hamper, prohibit, solution, answer, outcome, measure, method, tackle, cope with, solve

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3 The discourse-organizing words are referred to by different terms by researchers with different concerns. They are referred to as “vocabulary 3,” because of the mixed nature of function and content vocabulary (Winter, 1977). They are called “anaphoric nouns” because the interpretation depends on other parts of text (Francis, 1986). They are named “procedure vocabulary” because they do an organizing job (Widdowson, 1983). We adopt the term used by McCarthy (1991) because it most directly reflects the discourse function of the words.
2. Claim-counterclaim: opposition, viewpoint, argue, against, different, in contrast, rather, still
3. General-example: illustration, specifically, in particular, illustrate, explain, such as, like

The word lists of textual relationships are endless. As students learn more, their lists expand accordingly. Teachers only need to inform students of the discourse-organizing function of vocabulary, to remind them to be sensitive to these words, and to ask them to collect their own lists of organizing words. Gradually, they will become sensitive to structure relationships, too.

Textual Relationships, Structure Relationships, and Organizing Words

So far, the correspondence between the four structure relationships and the four categories of connecting words has been presented and explained. However, it is not clear how the eight textual relationships fit in with the four structure relationships. Comparing the eight textual relationships presented earlier with Stalter’s (1987) structure relationships, we find the former represents more specific textual patterns which can be further grouped under the more general structures in Stalter’s model. Also, there is no one-to-one correspondence between the structures and the textual relationships. One basic structure may be developed by the use of more than one textual relationship. For example, the General-example(s), General-specific(s), and Group-members can all be grouped under the “And (additive)” category, since all three patterns support one single idea by giving one or more specific features, members and examples which can be added up to reinforce the idea. At the same time, one textual relationship may be available for different structures.
To take the Problem-solution pattern as an example, after the statement of a problem, the author may adopt the “And (additive)” structure and list several solutions to the problem one by one. Or if the solutions form a chain and are to be worked out one after the other, the author could fit the Problem-solution pattern in with the “And then (temporal)” structure.

In short, the relationships among the three ideas can be interpreted in terms of abstractness or generalness. The basic structures are at the top of the ladder of abstractness. They are intended to cover all the relationships among the discourse units in the most general way. Then, at the next lower level comes the textual relationships. Textual relationships show ways to understand the structure. For instance, in a passage that aims to explore the greenhouse effect, the basic structure would likely be the “Therefore (causal)” structure, since the explanation of the causal relation is the main idea. However, in the process of actually representing the effects, the author has alternative patterns from which to choose to construct the causal structure. He or she may use the General-example(s) pattern by offering example(s) of the effects. Or he or she may use the Question-answer pattern by raising the question of what the greenhouse effect may bring in the beginning and then making the rest of the passage describe the phenomena to answer the question. Finally, a further step down the ladder to the solid earth, are the concrete linguistic forms, the connectors and other organizing words that translate the abstract relationships into language.
CONCLUSION

The importance of reading skill can never be overemphasized. In particular, in the academic context, English reading is the major route to the temple of knowledge since English is the most prevalent language of communication among scholars and researchers around the world. Important publications and textbooks are usually written in or translated into English. However, for most EFL students, reading in English is never an easy job, not to mention enjoying reading or learning from reading. In order to improve the situation, English educators need to develop effective teaching methods for EFL students.

The present study proposes a discoursal approach to reading instruction for EFL students. This approach adopts a two-way model to tackle the reading task. First, readers are suggested to resolve the texts with a top-down method. They analyze the textual relationships among sentences from a global perspective. The analysis of the macro structure of a text can achieve two purposes of reading: one, to identify the main idea and its supporting ideas in the text; the other, to see how the main idea is developed and how the supporting ideas are generated and connected to each other in forming the text under a unified central idea. However, the top-down process itself does not fulfill the reading task. EFL students need a tool to resolve the textual relationships. The tool is the knowledge of the discourse-organizing devices in English. Thus, the bottom-up method comes into play. This method requires readers to look for linguistic clues that indicate textual relationships. In the discoursal approach, two types of linguistic forms are brought into the students’ view: connectors
and other discourse-organizing words. The former type is well-known and is more obvious as they usually occupy noticeable positions at the connections of discourse units. The latter covers a large amount of content words which are used frequently to organize discourse; however, the function of these organizing words is barely mentioned in reading instruction. It is proposed that attention be paid to the organizing words as well as connectors in analyzing discourse structure.

The method of reading instruction proposed in the present study is effective in two ways. First, it advocates reading for a purpose. The top-down method encourages readers to read for the main ideas the author intends to communicate. In this way, readers do not just stop at understanding the meaning of each word and each sentence without coming to understand the author’s point, as many EFL students so often do. Consequently, readers can broaden their knowledge by reading, which is the ultimate goal of academic reading. Furthermore, this approach to reading instruction is operational. Instead of just providing a general description of reading skills, the bottom-up method of this approach points out specific linguistic forms and brings them into conscious learning. Therefore, when students want to parse a discourse, they can search for connectors which manifest unit boundaries. When students want to identify the relationships by which sentences are connected to each other, they can examine categories of connectors or organization words. In other words, they know exactly what to look for and how to interpret the meanings or the functions of the words.
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篇章語法於英文閱讀之應用：論文章結合關係

摘要
本文旨在介紹篇章語法於英語閱讀教學上的應用。目前多數英文老師都知道教授閱讀技巧的重要性，相關技巧如掌握要點(Skim)、尋找重要細節(Scan)、進行推論(Infer)等，都會在課堂提及。但是老師們同時面臨的困難是，不知如何指引學生從文章中的詞彙或句構來尋找線索。其實，在這問題上篇章語法的教授有助於達到有效閱讀的目的。本文以篇章語法中的文章結合關係(Textual relationships)為主題，解釋它在閱讀上的應用。首先，我們闡明文章有層級性架構。而文章中的單句必需透過文章結合關係，才能連結組成這個架構。其次我們指出讀者可以由兩種語言成份來一窺文章結合關係：連結詞彙(Connectors)及篇章結構詞彙(Discourse- organizing words)。作者將舉例說明經由文章結合關係的分析，學生可以充份掌握文章的結構及論點之鋪陳，進而瞭解全文要旨。

關鍵詞：閱讀教學 篇章語法 文章結合關係 篇章連結詞彙