

# The Design for a Collaborative System of English as Foreign Language Composition Writing of Senior High School Students in Taiwan

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## Abstract

*The authors will propose system integrated mechanisms, a Wiki platform for peer-reviewing, Link Grammar for automatically checking the students' papers, and a RSS reader to periodically retrieve these articles from the platform that is published in the BLOG system. The authors claim that using such a system will have two major advantages. First, the students have a chance to exchange their skills and opinions when writing the article. Second, by the assistance of Link Grammar, the teacher can concentrate on students' higher level skills instead of correcting mechanical problems.*

## 1. Introduction

Although high school graduates in Taiwan have studied English for six or more years, their performance is still far from satisfactory. Seventy-five percent of the examinees get less than 7 points out of twenty in the English composition segment of the college entrance exam [1]. In this study, the authors propose an intelligent and constructivist online English composition community system to remove some of the difficulties in learning and teaching English composition in Taiwan. We propose the system may help students integrate a collective idea and use their writing skills to finalize the weekly writing task. In addition, the teacher could use this system to diagnose the results of the students' weekly work.

## 2. Theoretical Background

### 2.1 Peer Review

English as Foreign Language (EFL) student writers need and deserve responses to the form and content of their writing while they are developing their topic [2]. Reid [2,3] argued that responding to and evaluating student writing are often parts of the same process.

Responding to student writing is a continuing process, not a single act. In the same way that the processes of idea generation and revision are recursive and ongoing, response—written and oral—to student writing by a variety of audiences is essential for successful writing. Reid also indicated that students, teachers, and peers play important roles in the response process: student writers are continuously writing, reading, and revising their own prose; peers offer the social context within which response occurs; teachers identify certain competencies on the part of the learners and intervene appropriately in the process.

Researchers [4,5] of both native English speaking and ESL writing have demonstrated that with carefully designed and implemented peer review groups, the concept of audience provided by peer response allows writers to think not just about readers as readers but also actually to read the text through the eyes of potential readers, trying to judge how the meaning these readers would make sense of the text

### 2.2 Link Grammar.

Link Grammar [6] is a formal system showing how English grammar can be incorporated into a computer program and parsed by it competently. It comprises a set of words, which are the terminal symbols of the grammar, and each symbol has a linking requirement. Link Grammar identifies a sentence by diagnosing links among symbols. It is necessary for these links to satisfy three conditions in the Link Grammar system. First, planarity must exist, which means the links do not cross. Second, connectivity must exist, which means that the links connect all the words of the sequence together. Third, satisfaction must exist, which means that the links satisfy the linking requirements of each word in the sequence[6].

The requirements of each word are gathered in a dictionary. Figure 1 shows parts of the dictionary for the

words “a”, “the”, “cat”, “snake”, “Mary”, “ran”, and “chased.”

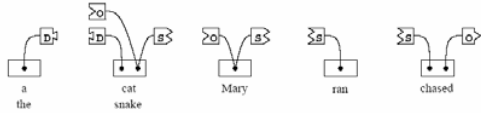


Figure 1 Example Of The Dictionary [6]

Each of elaborated labeled boxes is called a “connector.” A connector is designed to satisfy another connector. If the mating end of a connector is to the right, then its mate should be on its right side towards the left. Besides, every dot within the box must be fulfilled by the connectors. For example, “cat” requires a D connector to its left, and either an O connector to its left or an S to the right. The following example is the explanation of the result parsed by the Link Grammar dictionary.

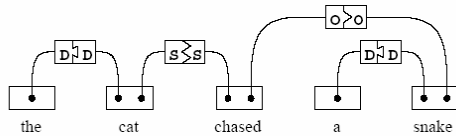


Figure 2 Example of The Dictionary[6]

### 2.3 Wiki system and Movable Type

The Wiki [7] system is a collection of Web pages which can be edited by anyone, at any time, from anywhere. The Wiki system is the medium that carries all the interaction results from learners. It is easy to read the immediate comments of the articles from the peer editors or other students in the Wiki system.

The Movable Type system is an application for anyone who wants to establish one’s own BLOG system. The system has several advantages for composition writing. First, the intuitive interface is regarded as one of the simplest web applications available. Next, it can support for multiple weblogs/journals. In addition, after setting the destination, the owner can publish multiple versions, such as XML or RSS headlines from the current site, XHTML indexes, or custom data formats. Finally, the BLOG system is high integrated into the rich site summary (RSS) which is an XML based protocol [8] that allows for the automatic distribution of Internet content from news related sites via RSS aggregators or readers.

### 3. System Architectures

The proposed system contains a peer-review function using Wiki system, Link Grammar, and BLOG system as a publishing environment.

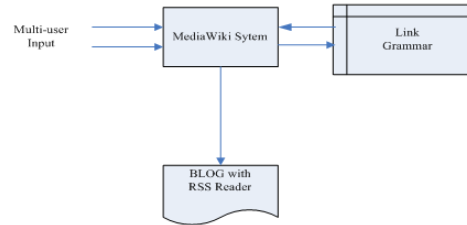


Figure 3 The Architecture Of The System

The instruction activity for students is to be a campus journalist. The goal for this activity is to publish a public weekly paper. During the week, the students are asked to gather data through interviews and then write articles using the system. The students use the Wiki system as a platform to present their drafts and peer edit them. In the meantime, the Link Grammar parses the draft for mechanical problems. The teacher is responsible to monitor the students’ writing process. Finally, the results from the back and forth peer-reviewing and Link Grammar will automatically be caught by the RSS reader which combines with the BLOG system as well as the weekly journal in public.

### 4. Conclusion and future work

First, this proposed system is designed for Taiwanese students to learn English composition. It assists students with providing a platform to exchange and communicate their skills and opinions within a dialectical environment. Furthermore, teachers can devote themselves to higher level cognitive skills without needing to attention to the mechanical problems. Finally, results of the students can be regularly published by the RSS reader into the BLOG system. Thus, the students’ efforts can be presented and appreciated in public.

### Reference

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