An Analysis of Recognition of Compound Complex Sentences for Fossilized Errors in Teaching Writing

Arzu Koçak*

Hacettepe University, Ankara 06800, Turkey

Abstract
This empirical study investigated to what extent instruction (six-hour remedial teaching) aids recognition of compound complex sentences in teaching writing. The study also compared and contrasted students’ recognition level of four types of sentences (simple, compound, complex and compound complex sentences) in teaching writing to find out the order of confusion for types of sentences. The data were collected through two tests (a pre-test and a post-test) administrated by 22 first year students in the Department of English Language Teaching (ELT) at Hacettepe University. The data gathered from the tests were analyzed quantitatively. Findings revealed that participants did better on sentence structure knowledge at the end of the course than at the beginning of the course. In addition, the results of the study indicated that there are significant differences among students’ level of recognition for each type of sentence and the most confusing sentence type for the students is complex sentences.

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Keywords: simple sentences, compound sentences, complex sentences and compound complex sentences

1. Introduction

1.1. Introduction of the problem

Teaching writing has an important role in the field of Second or Foreign Language teaching since “writing gives students more thinking time than they get when they attempt spontaneous conversation” (Harmer, 2007, p.112). Writing provides students with many opportunities for “language processing”, that is “thinking about the language” (Harmer, 2007, p.112). On the other hand, with regard to teaching language skills taught

* Corresponding author
E-mail address: kocaka@hacettepe.edu.tr
to low level ESL students, the most difficult language skills to teach for the teachers is writing (White & Arndt, 1991; Leki, & Carson, 1994).

As regards writing, a distinction should be made between written grammar, frequent vocabulary of the language and the mastery of syntax. It is necessary to have not only grammatical knowledge but also acceptable English rhetoric to be able to form a well-written paragraph or an essay (Johns, 1990; Leki, & Carson, 1994). It is obvious that a few well-written sentences are not enough to write a good paragraph. ESL or EFL students need training and practice to merge sentences into a cohesive whole (Bhati, 1990; Bosher, 1998; Johns, 1990)

In second language writing, the role of grammar in writing refers to both explicit explanations of grammatical principles and teacher correction of errors. According to Celce-Murcia (2001), “Grammar in Writing” and teaching of it means “helping writers develop their knowledge of linguistic resources and grammatical systems to convey ideas meaningfully and appropriately to intended readers” (p.233). It is clear that focus on form should be integrated into the instructional design of writing classrooms to some extent. With regard to integrating grammar in writing instruction, the most important point for teachers is to decide what kinds of grammar focus are appropriate and relevant for students’ needs. In this process, “learner variables” such as age, proficiency level and educational background and “situational variables” should be taken into consideration (Celce-Murcia, 2001, p.235).

Grammar consists of morphology and syntax which are interrelated fields of study. Morphology is the study of “formation and interpretation of words”, while syntax is concerned with the “formation and interpretation of phrases and sentences” (Radford, 1997, p.1).

Native speakers of a language know the formations and interpretations of words, phrases and sentences in these languages. In other words, “native speakers have grammatical competence in their native language”; that is, this grammatical knowledge is “tacit (i.e. subconscious) rather than explicit (i.e. conscious)” (Radford, 1997, p.1).

In 1960’s, Chomsky stated that competence is different from performance. Chomsky (1965) defines the term competence as “the speaker-hearer’s knowledge of his language”, whereas he regards performance as “actual use of language in concrete situations” (p.2). If grammar is accepted to be the study of grammatical competence, it refers to a cognitive view of nature of grammar. Chomsky (1986) emphasizes that language is studied “as a cognitive system internalized within the human brain/mind and the fundamental aim is “to characterize the nature of the internalized linguistic system which enables humans to speak and understand their native language” (p.20). However, this competence is not
directly accessible to second or foreign language learners as native speakers have intuitions about grammaticality (Radford, 1997, p.3). In this sense, this current study investigated students’ recognition of sentence types in teaching writing considering second language acquisition.

1.2. Sentence Types

The term sentence which originated from Latin sententia literally meant ‘feeling’ or ‘opinion’ (Verspoor, 2000, p.33). In the field of grammar, a sentence can be described as “a complete, independent unit of thought” which includes “two basic parts: a subject and a predicate” (Demirezen, 1998, p.1).

There are four types of sentences classified according to their structures, depending on the types of clauses they contain: simple, compound, complex, and compound-complex (Demirezen, 1998, p.1).

1.2.1. The Structure of Simple Sentences

A simple sentence has a subject, finite verb and a predicate, but it does not necessarily have an object. A simple sentence includes just one main clause and there are no subordinate clauses in the structure of simple sentences (Demirezen, 1998, p.1). A simple sentence is made of one main clause only; nevertheless, this does not mean that the sentence has to be very short:

The waitresses are basking in the sun like a herd of skinned seals, their pinky-brown bodies shining with oil. (Verspoor, 2000, p.35).

Simple sentences can be accompanied by extended phrasal elements. Demirezen (2012) states that “extended phrasal elements may be adjective phrases, adverbial phrases, prepositional phrases, appositive phrases, gerundive phrases, participle phrases, verbal phrases, infinitive phrases, and they may precede, come in-mid sentence position, or follow the simple sentence structure.” (p. 140).

While coming to class this morning, I witnessed a robbery.

My wife, burning the roasted turkey, looked terribly embarrassed.

The plane crashed, killing all 200 people.

1.2.2. The Structure of Compound Sentences

A compound sentence consists of two or more main clauses. In the structure of compound sentences, each simple sentence has a subject and a verb, but not necessarily an object. The sentences are joined together by coordinating conjunctions or a semicolon (Demirezen, 1998, p.3-13).

Movies are good to entertain people; furthermore, they are instructive
I’m getting fat; I ought to take up tennis

I read the newspapers, I talk to my relatives, I read books, and I try to think about everything on Sunday afternoons.
1.2.3. The Structure of Complex Sentences

Complex sentences consist of one independent clause (main) and one or more dependent clauses (subordinating clauses). There are three kinds of dependent clauses that form a complex sentence (noun clauses, adverbial clauses and adjective clauses) (Demirezen, 1998, p. 28-30).

I was glad when I heard that she had gone forever (main clause + subordinating clause 1 + subordinating clause 2)

You mean you didn’t know that I didn’t hear what she said (main clause) + (subordinate clause 1) + (subordinate clause 2) + (subordinate clause 3)

1.2.4. The Structure of Compound-Complex Sentences

A compound-complex sentence consists of two or more main clauses and one or more subordinating clauses. The subordinating clauses consist of noun, or, adjective, or adverbial clauses. The main clauses are joined by either a coordinating conjunction or a semicolon.

There are times when one wants to be surrounded by people, (main clause 1) (subordinate clause 1: adverbial clause)

and there are times when one needs solitude (main clause 2) (subordinate clause 2: adverbial clause)

At the railway station, I asked a passanger if this was the Fatih express, but he had not even heard of it. (main clause 2)

2. Method

This study did an analysis of recognition of compound-complex sentences for fossilized errors in teaching writing. It also investigated whether students’ recognition level of sentence structure (simple, compound, complex and compound-complex sentences) changes according to the difficulty level of sentences.

2.1. Research Questions

The study has focused on the following research questions:

1. To what extend does instruction aid students to acquire knowledge of four types of sentences (simple, compound, complex and compound-complex sentences) in terms of diagnostic assessment?

2. How does the effect of instruction on students’ knowledge of sentence structure (simple, compound, complex and compound-complex sentences) change according to the types of sentences?
3. What is the order of confusion for four types of sentences (simple, compound, complex and compound-complex sentences)?

4. Which types of sentences are confused with each other by the students?

2.2. Setting and Participants

This research was conducted at Hacettepe University, in the department of English Language Teaching (ELT). The participants were 22 first year students (9 male and 13 female) at C1 level in the ELT department at Hacettepe University. The participants were aged between 18 and 20.

2.3. Instruments

The data for this research were collected via two different tests (a pre-test and a post-test). The tests were prepared by the researcher. To get feedback about the questions in the tests and to ensure that the tests were reliable, before the tests were administered, they were checked by three English instructors working in the philology testing department in the Preparatory School at Hacettepe University.

2.3.1. Tests

The tests consist of 100 likert-scale items (multiple-choice questions). Each question has five options (ranging from a to e) which include each type of sentence (simple, compound, complex and compound-complex). The sentences used for options were gathered from Longman Contemporary English Dictionary, Demirezen's book *From Sentence to Paragraph Structure* (1998), his article titled *An Analysis of the Problem-Causing Structures of Simple Sentences for Turkish University Students and some grammar books*. In both pre-test and post-test, the questions are distributed equally according to the types of sentences. As the main focus of study was to analyze the recognition of compound-complex sentences, 50 questions in the tests were about compound-complex sentences. The distribution of questions is presented in Table 1.

<table>
<thead>
<tr>
<th>Type of Sentences</th>
<th>Number of Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Simple Sentences</td>
<td>15 (1-15)</td>
</tr>
<tr>
<td>Compound Sentences</td>
<td>15 (16-30)</td>
</tr>
<tr>
<td>Complex Sentences</td>
<td>20 (31-50)</td>
</tr>
<tr>
<td>Compound Complex Sentences</td>
<td>50 (51-100)</td>
</tr>
<tr>
<td>(Four types of sentences)</td>
<td>(Total: 100)</td>
</tr>
</tbody>
</table>

Table 1 – Distribution of questions in pre-test and post-test
2.3.2. Data Collection Procedure

After the tests were prepared and checked by three colleagues to assess the reliability of test items, necessary changes were made in the tests and the study was started with the administration of pre-test to participants. Both pre-test and post-test sessions were 90 minutes in length. After the pre-test session, the instructional process was initiated. Sentence types (simple, compound, complex and compound –complex) were taught to students through six-hour class instruction using a power point presentation and a worksheet on types of sentences. Students are required to do a variety of activities (10 different exercises) during the instructional process:

- Filling in the blanks with a coordinating conjunction
- Combining sentences using a transitional expression
- Determining subordinate and main clauses
- Adding a missing subordinating conjunction to sentences
- Analyzing Compound-Complex Sentences
- Combining the given sentences into compound-complex sentences by the given conjunctions
- Combining the given words, phrases, and clauses into compound-complex sentences
- Scrambled Sentences
- Identifying the kinds of sentences for the given sentences
- Completing the given sentences in the structure of compound-complex sentences

14 days later than the instruction, the post-test was administered by the participants in order to determine the effectiveness of instruction in terms of students’ recognition level of types of sentences and to compare and contrast students’ performance for each sentence type.

2.3.3. Data Analysis

All the data collected from the tests were analyzed quantitatively using Statistical Packages in Social Sciences (SPSS) Version 11.5. The answers to multiple choice questions were analyzed quantitatively using percentages and frequencies. In addition, in order to compare the performance of the participants in two different conditions (before and after taking a writing course) and to find out whether instruction has a reliable effect on students’ knowledge of sentence structure, a paired-samples t-test was used. Furthermore, the effect size was calculated to see the importance of instruction in terms of its effects on recognition of types of sentences in teaching writing.

After each item for each type of sentence in both pre-test and post-test were analyzed using percentages and frequencies, the items which has the highest frequency were
determined to see how students’ recognition level of sentence structure changes according to the degree of complexity each type of sentence has.

3. Results

In this section, data gathered from tests will be discussed separately in relation to the research questions.

3.1. Comparison of Pre-test and Post-test Results

R.Q.1. To what extent does instruction aid students to acquire knowledge of four types of sentences (simple, compound, complex and compound-complex sentences) in terms of diagnostic assessment?

Students’ total pre-test and post-test scores were compared and analyzed using a paired samples t-test to be able to determine to what extent instruction facilitates acquisition of knowledge of types of sentences. In addition, the effect size was calculated to get reliable information about the effectiveness of the instruction. The results concerning the comparison of pre-test and post-test results are shown in Table 2.

Table 2 – The results of the paired-samples t-test

<table>
<thead>
<tr>
<th></th>
<th>M</th>
<th>N</th>
<th>SE</th>
<th>Sig (two-tailed)</th>
<th>r (effect size)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRE-TEST</td>
<td>33.81</td>
<td>22</td>
<td>2.88</td>
<td>0</td>
<td>r = .93</td>
</tr>
<tr>
<td>POST-TEST</td>
<td>79.95</td>
<td>22</td>
<td>3.15</td>
<td>(p &lt; .05)</td>
<td>(r = +/-.5 is a large effect)</td>
</tr>
</tbody>
</table>

Note: M: Mean    N: Number of Students   SE: Std. Error Mean

The results indicated that on average, participants did better on sentence structure knowledge at the end of the course (M=79.95, SE= 3.15) than at the beginning of the course (M = 33.81, SE = 2.88). This difference was significant t(21) = -11.667, p < .05, r = .93.

3.2. Comparison and Contrast of Recognition of Four Types of Sentences

R.Q.2: How does the effect of instruction on students’ knowledge of sentence structure (simple, compound, complex and compound-complex sentences) change according to the types of sentences?

Students answers for each item in pre-test and post-test are analyzed quantitatively using percentages and frequencies to determine whether students’ level of recognition for each sentence type changes according to the degree of complexity sentences have. The number of correct and incorrect answers for each item in the pre-test and post test are also analyzed separately.
Considering the data, students’ incorrect answers which have the highest frequency were examined for each type of sentence to determine the level of difficulty of each sentence type in terms of recognition. The results are shown in Table 3.

Table 3 – The comparison and contrast of types of sentences

<table>
<thead>
<tr>
<th>SENTENCE TYPES</th>
<th>PRE-TEST INCORRECT ANSWERS</th>
<th>POST-TEST INCORRECT ANSWERS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PERCENT</td>
<td>MEAN</td>
</tr>
<tr>
<td>SIMPLE SENTENCES</td>
<td>53%</td>
<td>1.56</td>
</tr>
<tr>
<td>COMPOUND SENTENCES</td>
<td>75%</td>
<td>1.75</td>
</tr>
<tr>
<td>COMPLEX SENTENCES</td>
<td>85%</td>
<td>1.84</td>
</tr>
<tr>
<td>COMPOUND-COMPlex SENTENCES</td>
<td>58%</td>
<td>1.58</td>
</tr>
</tbody>
</table>

As Table 3 shows overall mean scores of sentence types for both pre-test and post-test indicates that there are significant differences among students’ responses (diagnosis assessment) for each type of sentences. On the other hand, it seems that the number of incorrect answers for each type of sentence is parallel with each other in two tests.

3.3. The Order of Confusion for four types of Sentences

R.Q.3. What is the order of confusion for four types of sentences (simple, compound, complex and compound-complex sentences)?

With regard to the level of difficulty of different sentence types, as Table 3 shows the results indicated that the most difficult sentence type for the students to diagnose is complex sentences. It is followed by compound, then compound complex sentences. The easiest sentence type for the students is simple sentences.

3.4. Types of Sentences Confused With Each Other

R.Q.4. Which types of sentences are confused with each other by the students?

The data gathered from the study concerning the incorrect answers which have the highest frequency both for pre-test and post-test were analyzed to determine the most confusing sentence type for the students to recognize. The results are as follows:

Pre-test Simple Sentences

Question 3: % 63 of the students confused simple sentences with compound sentences

Question 4: % 75 of the students confused simple sentences with compound sentences
Question 7: Some of the students (%44) confused simple sentences with complex sentences & some of the students (%38) confused simple sentences with compound sentences

Question 8: %50 of the students confused simple sentences with complex sentences
Question 9: %69 of the students confused simple sentences with complex sentences
Question 11: %50 of the students confused simple sentences with complex sentences
Question 15: %59 of the students confused simple sentences with complex sentences

The results given above indicate that in the pre-test, students generally confused simple sentences with compound or complex sentences

Pre-test Compound Sentences

Question 16: %53 of the students confused compound sentences with simple sentences (extended simple sentences including phrasal modifiers in mid-sentence position).

Question 19: %50 of the students confused compound sentences with compound-complex sentences

The results show that in the pre-test, compound sentences are generally confused with compound complex sentences

Pre-test Complex Sentences

Question 40: %65 of the students confused complex sentences with compound-complex sentences

Question 42: %50 of the students confused complex sentences with simple sentences (extended simple sentences: A couple of phrases ending a sentence)

The results indicates that in the pre-test, complex sentences were generally confused with compound-complex sentences and compound sentences

Pre-test Compound Complex Sentences

Question 64: %66.6 of the students confused compound-complex sentences with compound sentences

Question 66: %61.9 of the students confused compound-complex sentences with complex sentences (including two subordinate clauses)

Question 84: %55.5 students confused compound-complex sentences with complex sentences

It seems that in the Pre-test, students generally confused compound-complex sentences with complex or compound sentences

Post-test Simple Sentences

Question 11: %83.3 students confused simple sentences with complex sentences

Post-test Compound Sentences
Question 26: %88.2 students confused compound sentences with compound-complex sentences
Question 30: %83.3 students confused compound sentences with compound-complex sentences

The results show that in the post-test, students generally confused compound sentences with compound complex sentences.

**Post-test Complex Sentences**

Question 38: %54.5 students confused complex sentences with compound-complex sentences
Question 50: %58.3 students confused complex sentences with compound sentences

The results indicate that in the post-test, students confused complex sentences with complex or compound-complex sentences.

**Post-test Compound Complex Sentences**

Question 66: In general %59.9 (question specific: %100) of the students confused compound-complex sentences with compound sentences (extended compound sentences having three main clauses)

Question 85: In general %50 (question specific: %100) of the students confused compound sentences with compound sentences (extended compound sentences having three main clauses)

It is seen that in the post-test, compound-complex sentences are sometimes confused with compound sentences.

Table 4 shows the overall results concerning types of sentences confused with each other.

<table>
<thead>
<tr>
<th>TESTS</th>
<th>TYPES OF SENTENCES THAT ARE CONFUSED WITH EACH OTHER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-test&amp;post-test</td>
<td>Simple Sentences → Complex Sentences</td>
</tr>
<tr>
<td>Pre-test&amp;post-test</td>
<td>Compound → Compound-Complex Sentences</td>
</tr>
<tr>
<td>Pre-test&amp;post-test</td>
<td>Complex → Compound or Compound-Complex Sentences</td>
</tr>
<tr>
<td>Pre-test&amp;post-test</td>
<td>Compound-Complex → Compound Sentences</td>
</tr>
</tbody>
</table>

3.5. **Limitations of the study**

The main limitation of the study was the number of participants. The study was conducted with 22 students. At the beginning the study, the pre-test was administered by 26 students. However, since four students didn’t attend the six-hour instruction on types of sentences, the post-test was administered by 22 students. Therefore, it would not be appropriate to generalize the results of this research to all students.
Another limitation is that this research has focused on students’ recognition of sentence types and, in particular, compound-complex sentences. Therefore, another research investigating the production of sentence types in students’ writing should be conducted in order to determine and assess the fossilized errors in compound complex sentences.

4. Conclusion and Recommendations

With regard to the effect of instruction on students’ knowledge on sentence structure, participants did better on sentence type knowledge at the end of the course. Previous research has also indicated that “the SLA research comparing classroom research with the so-called ‘street learners’ has provided compelling evidence that instruction does aid acquisition” (Krashen & Seliger, 1975; Long, 1983). As Han (2004) emphasizes, “explicit instruction (rule explication and/or corrective feedback) has, potentially, a useful contribution to make the learners’ noticing of specific features in the input” (p. 135).

The overall results of the study indicated that students’ recognition of sentence structure significantly changed according to the types of the sentences. Comparing the participants’ answers to see what is easy or what is difficult for them to recognize in pre-test and post-test indicates a general agreement regarding the general ease of the sentences. The difficulty level of sentence types for students is as follows (patterns of correct recognition frequencies):

Recognition: Simple < Compound complex < Compound < Complex

The data gathered from both pre-test and post-test indicated that the most difficult sentence type for the students to recognize is complex sentences. The easiest sentence type for the students is simple sentences followed by compound complex then compound sentences.

The results of a case study investigating students’ perceptions regarding the level of difficulty of different sentence types indicates that they perceive simple sentence as the easiest sentence type to produce followed by compound sentence as being less easy. Students perceive the difficulty between the sentence types ascending in the following direction (Al-Musalli & Alharti, 2011, p.9):

Perception: Simple < Compound < Complex < Compound- Complex

The results of this case study concerning incorrect sentences produced in writing by students showed that simple and complex sentences had the highest frequency of correct sentences among the four sentence types and students produced more correct compound sentences than compound-complex ones. In this sense, with regard to the results of this
current study, another research investigating whether students’ recognition regarding the level of difficulty of various sentence types are reflected in their productions should be conducted to be able to determine the fossilized errors in all types of sentences.

Chomsky (1965) stated that “every speaker of a language has mastered and internalized a generative grammar that expresses his knowledge of his language” (p.8). According to Chomsky, there is a difference between competence and performance. He argued that children are biologically programmed for language and they don’t have to be taught. For Chomsky, language acquisition is similar. According to his idea of generative-transformational grammar, we are able to utter and interpret sentences we have not heard before through language creativity and our language competence. In this sense, in writing, students can build rules which will allow them to generate an infinite number of sentences in different types based on their knowledge of what is acceptable according to the grammatical systems.

With regard to pedagogical implications, considering the effect of instruction on students’ knowledge of sentence structure, types of sentences should be taught in writing courses to enable students to write with sentence variety as sentence variety helps make their writings more interesting.

References


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