

THE SHORT- AND LONG-TERM EFFECT OF EXPLICIT GRAMMAR INSTRUCTION ON FIFTH GRADERS' WRITING

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Grammar instruction has long been a troubling issue for many language arts teachers. This collaborative research between an elementary classroom teacher and university faculty, based on the assumption that grammar is most effectively taught in reading and writing, looks into the short- and long-term effect of error-based grammar instruction on the writing of a group of fifth grade students. Results indicate that mini-lessons that target errors identified in previous students' writing produce positive short- and long-term effect on students' rewriting. An instructional model based on the findings of this study is also proposed.

Problem

The need for grammar instruction and the method of teaching it in elementary language arts curriculum have long been controversial issues (Cramer, 2004; Tompkins, 2002). Hillocks and Smith (2003) conclude with evidence from their meta-analysis that focusing on instruction is much more effective in improving student writing than on grammar and mechanics. Their findings provide support for some of the earlier classic research on this topic (Elley, Barham, Lam, and Wyllie, 1976; Harris, 1962). On the other hand, Weaver, McNally and Moerman (2001) believe that to teach or not to teach grammar is not the question; it is a matter of what and how to teach it. They strongly oppose the isolated teaching of grammar rules and concepts,

which is actually what their opponents investigated in their research and found to be ineffective. Putting the debate aside, a close look at samples of elementary students' writing suggests that students in reality frequently make grammar mistakes in writing, and many of the mistakes are consistent and should be addressed. At present, more and more researchers and educators seem to support grammar teaching, but only in the context of reading and writing (Cox, 1999; Cramer, 2004; Patterson, 2001; Weaver, McNally, & Moerman, 2001; Tompkins, 2002). Furthermore, many researchers specifically recommend teaching it in the revising, proofreading, or editing stage (Cox, 1999; Sharon, 1997; Patterson, 2001; Weaver, 1998).

What seems to be missing in the debate,

however, is a model that delineates the specific procedures in the error-based approach and the systematic evidence that this approach is in fact effective, both in short- and long-term, on the accuracy of student writing. The present research, which is a collaborative effort of a classroom teacher and college faculty, is intended to fill the gap by measuring the result of this kind of instruction. Therefore the questions we ask in this research are: 1) Does error-based grammar instruction have positive short-term effect on student writing? 2) Does error-based grammar instruction have positive long-term effect on student writing?

The approach employed in this study is comprised of analysis of grammar errors in student writing, mini-lessons that target those errors, and reanalysis of errors in the follow-up writing. Positive effect is defined as reduced numbers of grammar errors in student writing. For this study, a decrease of 20% would be considered positively effective. Conclusions will be drawn on the effect of this method of instruction.

Methodology

Participants: The participants of this study are a group of fifth graders in a public elementary school in a southern state. Their numbers in different stages of the study vary slightly depending on whether the students were willing to participate at that particular time. At the beginning of the study, twenty two students participated, but the number went down to sixteen halfway through and to nineteen at the final stage of the study.

Data collection and analysis: The data

of this study consist of student writing samples collected at three different points in the school year. The first batch of samples was collected at the beginning of the school year, on the topic of "My Friends", assigned by the classroom teacher. Students were only given a topic and a time framework without any further instruction on how to write it. Twenty two copies of student writing were obtained. Grammar errors were then identified and categorized independently by the two researchers. After conferencing with each other, mutually accepted codes were developed to describe those errors and errors in future samples. The codes include three major categories, namely Sentence Structure, Usage, and Mechanics. Under each category, there are several subcategories. For example, under Usage, there are wrong case, confusion between homophones, and wrong verb forms. Under Sentence Structure, mistakes were classified into having no subject, incorrect subject-verb agreement, and sentence fragments. Finally in Mechanics, punctuation, spelling, capitalization, apostrophe, and incorrect plural forms are identified (See Appendix for the Coding Scheme).

Based on the errors identified, mini-lessons were designed and taught to correct them. To address errors of mechanics (e.g., capitals and punctuation), a short sample paragraph written by the teacher was projected on an overhead each day and corrected by the students as a group. Errors in usage were also addressed whole group by using sample paragraphs on overhead. For example, in teaching homophones, students first identified the word that was used in a wrong place, then listed the

word/words that should have been used. Next, students worked with a partner to make sentences with words that have the same pronunciation but different spellings.

To correct errors of sentence structure, small groups of students with similar needs met with the teacher to practice identifying and correcting errors in flawed writing samples. For example, four students had problems with sentence fragments, so those students met to identify and correct paragraphs with sentence fragments. As a culminating activity following the mini-lessons, students were given a clean copy of their original paper and asked to identify and correct the errors. One week after the mini-lessons were completed, the same group of students was asked to write again on a similar topic of "My Spare Time", and their work was once again collected and analyzed to assess the immediate effect of the mini-lessons, that is, whether they prevented the errors identified in the first batch of samples from occurring again. Sixteen samples were collected in this round. At the end of the school year, students were asked to write on the topic of "Fun Time with Friends", and a third batch of nineteen samples was collected and analyzed for grammatical errors, with the purpose of determining the long-term effect of instruction, that is, in what way the mini-lessons affected the nature and number of each type of grammar mistakes.

Results

Using the codes the two researchers developed together, we analyzed the samples independently and then conferred with each other to talk about the differences in the results. Finally we came up with the fol-

lowing results.

From the following table, we can see that overall, the students improved in their writing in the three areas, namely mechanical (from 63 to 35), sentence structure (from 22 to 1) and usage (from 12 to 8), on both the short-term and long-term measurements. The short-term effect is even more pronounced than the long-term one on mechanics and usage (63 to 29 Vs 63 to 35 and 12 to 1 Vs 12 to 8). Between Batch Two and Batch Three the number of errors went up somewhat in mechanics and usage (29 Vs 35 in mechanics and 1 Vs 8 in usage). One possible explanation is that the information from the mini-lesson instruction was not as well retained at the end of the school year as it was a week after it was presented.

It is also worth noting that this particular group of fifth graders tends to make more mechanical errors than the other two types of errors (63 Vs 22 and 12 in the first batch; 29 Vs 3 and 1 in the second batch; 35 Vs 1 and 8 in the third batch). Homophones seem to be a weak area for many students ("are" and "our", "of" and "off"). In terms of pronouns, the confusion between subjective pronouns and objective pronouns seems to be the predominant error, as shown in the sentence "Me and my friends like to do fun things together." It is obviously a transfer from their oral language to the written language, an example of the students' inability to distinguish the spoken register from the written register in some cases.

As for the large number of mechanical errors in all three batches of data, the researchers believe that it is an indication of students not taking the time to revise

 Summary of Errors in the Three Batches of Samples

Errors	Batch One (N=22)	Batch Two (N=16)	Batch Three (N=19)
Mechanical	63	29	35
Punctuation	22	2	2
Spelling	22	9	10
Capitalization	6	15	18
Apostrophe	13	3	5
Sentence Structure	22	3	1
No Subject	3	0	0
Wrong Pronoun	10	1	1
S-V Agreement	5	1	0
Sentence Fragment	4	1	0
Usage	12	1	8
Wrong Preposition	9	0	1
Homophone Confusion	13	1	7

and edit their writings before submission. To a certain extent it also suggests that the students haven't developed good writing habits.

Conclusions and implications

This study found that for this particular group of students, on almost all the grammatical items, accuracy can be improved through mini-lessons that target errors identified in student writing in both short and long-term measurements. It supports the claim that error-based instruction is an effective approach to grammar teach-

ing in language arts. The findings suggest that language arts teachers in elementary schools may embed grammar teaching in the process of writing, in particular in the revising and editing stages. What seems to be critical, though, is that the teacher should be very familiar with the errors that are frequently made by his/her students in writing so that he/she can plan the mini-lessons to address those weaknesses. Therefore, it is important that in practice the teacher read the students' writing to identify the weak areas of each student and teach those grammatical items either in a small group

that has the same needs or with individuals who have unique problems of their own.

In the peer editing activity that is often proposed by researchers and is popular in the classroom (Tompkins, 2002), editing is conducted among students themselves who may not have the ability to identify the errors in the first place. It is also uncertain that the peers are able to correct those errors. The effect of this kind of editing would not be as strong as the teacher desires. That is why we believe that at least at the beginning of the school year, conferencing with the teacher would be more beneficial to the students than peer conferencing.

Based on the above analysis, we recommend a model in which the teacher reads and analyzes the students' writing for grammar errors, designs mini-lessons to correct those errors, collects writing again and re-analyzes students' writing to determine progress. As Cramer (2004) puts it, "Teaching grammar in the context of writing means stressing revision and editing, teacher modeling of relevant grammatical concepts, and teaching minilessons on grammar and mechanical topics drawn from an analysis of student weaknesses and strengths." (p. 460) The teacher assumes more responsibilities in this model because the instruction will be centered upon his/her knowledge about the students' specific weaknesses in writing. This model cycles when the teacher identifies new errors that prompt for new instruction.

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Appendix

Coding Schemes

Mechanics

Punctuation

Spelling

Capitalization

Apostrophe

Sentence structure

No subject

Wrong pronoun

S-V agreement

Sentence fragments

Usage

Wrong preposition

Homophone confusion

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