TRADITIONAL GRAMMAR: HOW "RESEARCH SUMMARIES" RUINED A PRETTY GOOD THING

Donald E. Hardy

Introduction

I regularly teach large sections of a university-level course on traditional grammar. Recently, I taught a graduate seminar that examined the effectiveness of the instruction and on-line textbook in the students' learning of the material of the course on traditional grammar. Naturally, my seminar students and I read a massive amount of the research on the effectiveness of formal grammar in improving students' writing ability. Because most teachers of writing or grammar probably do not have time to read a great deal of research, they may conclude from a cursory glance or from informal conversation that there is little or no reason to teach formal grammar:

In view of the widespread agreement of research studies based upon many types of students and teachers, the conclusion can be stated in strong and unqualified terms: the teaching of formal grammar has a negligible or, because it usually displaces some instruction and practice in actual composition, even a harmful effect on the improvement in writing. (Braddock, Lloyd-Jones, and Schoer 37-38)

By "formal grammar," most researchers mean traditional grammar, although a few have examined structural and/or transformational grammars in the context of improving writing.

In an important sense, i.e., a practical sense, the theoretical fix is in. The fifty-six word statement quoted above has, as Kolln (140) remarks, "appeared over and over again [. . .] in books and articles and convention papers and classrooms and casual conversations," in spite of the fact that the research on which the statement is based is flawed in design and/or implementation. Kolln analyzes and exposes the flaws in studies by Asker, Frogner, Harris, Hoyt, Memering, Rapeer, Segal and Barr, and Symonds, many of which were part of the support for the Braddock statement quoted above. A general catalog of those flaws includes the following: lack of definition for crucial terms; unsupported and overgeneralized conclusions; lack of inter-rater reliability and test validity; simplistic correlations (e.g., grades in composition classes with scores on grammar examinations); misinterpretation of other research; use of teaching methods that were predetermined to fail (e.g., having students simply read correct sentences aloud); and concentration on negative findings at the cost of ignoring positive findings. The Braddock statement, Kolln comments, "effectively turned back the clock on grammar research" (139). Indeed, as Kolln remarks, it was "still causing ripples" in 1981.

The Braddock statement is still trotted out regularly today. Weaver (*Teaching* 10), for example, quotes it with approval. Peterson (73-74) does so as well. Kolln is not the only one to have exposed the weakness of the research that anti-formal-grammar enthusiasts rely on. Tomlinson warns us, "So far I have not seen a study that is not so flawed in design as to make its conclusions worthless" (20). He then proceeds to enumerate the particular weaknesses of Robinson's and Harris's studies, the latter being one of the most frequently cited studies in support of an anti-formal-grammar stance. Among the weaknesses variously distributed between the Robinson and Harris studies are poor essay-evaluation design and poor experimental control in teacher selection and topics of instruction. Newkirk, who appears to oppose any attempt to study the issue empirically, writes that he "will try to establish that the research has not proven what so

many claim that it proves" (46). I believe that he is successful in his attempt. He examines the weaknesses of two of the strongest research studies that conclude that formal grammar does not improve writing: Elley et al. and Harris.

Because Kolln, Tomlinson, and Newkirk have already analyzed the flaws of the studies referred to above, I will not do so here although I return briefly to the Elley study later. Instead, I will look in some depth at Constance Weaver's rhetorical use of one study in particular, Finlay McQuade's. However, I urge readers to read not only Kolln, Tomlinson, Newkirk, and all the studies that they analyze but also both Weaver (*Teaching*, "Teaching," "On the Teaching," "Teaching Grammar") and McQuade. As will become clear in this paper, one serious problem with the use of research on traditional grammar is that too many readers and writers rely only on summaries of research.

After an analysis of Weaver's use of McQuade (including a detailed look at how McQuade structured his study), I make the argument that we must first determine whether and how students learn traditional grammar before we can determine the effect of students' knowledge of traditional grammar on writing. Data are presented from a pilot study in which students are given three pre-tests and three post-tests in my university-level course in formal grammar.

Weaver on McQuade

We will begin, then, with a close look at two curious sentences from Weaver's 1996 English Journal essay "Teaching Grammar in the Context of Writing." English Journal is the journal of the Secondary Section of the National Council of Teachers of English (NCTE) and has been in publication since 1912. The English Journal webpage states, "Approximately 45,000 middle school, junior high school, and senior high school teachers, supervisors, and teacher educators read this refereed journal." The 1999 MLA Directory of Periodicals lists the circulation of English Journal at 62,000, which includes many university libraries. To put this figure in some context, the same source lists the

circulation of College Composition and Communication at 12,000. Weaver's 1996 essay appears as the lead essay in a special issue of English Journal on "The Great Debate (Again): Teaching Grammar and Usage." An inset note on the first page of the essay announces that Weaver is "an authority on grammar," an understatement given the popularity of her textbook Teaching Grammar in Context and her impressive publication record on grammar and other language matters. Weaver is the author of the first three NCTE SLATE Starter Sheets: "On Teaching Skills in Context," "On the Teaching of Spelling," and "On the Teaching of Grammar." Weaver's publications also include the editing of Lessons to Share on Teaching Grammar in Context as well as an essay in the volume. In her English Journal article, Weaver repeats the claim that "decades of grammar studies" show "that in general, the teaching of grammar does not serve any practical purpose for most students." By "the teaching of grammar," I believe that Weaver means the teaching of traditional grammar. In quoting the following passage I include the very important section heading "THE RESEARCH":

THE RESEARCH

Typically the research studies have not been fine-tuned enough to reveal that the study of grammar does have at least limited benefits for a few of us as writers. But even this more optimistic conclusion is called into question somewhat by a landmark study done by Findlay [sic] McQuade. (15)

Immediately before the preceding passage from "Teaching Grammar in the Context of Writing," Weaver notes that some of her own knowledge of grammar has helped her as a writer. So, in spite of Weaver's intuition that she has learned useful writing skills from her own study of formal grammar, she claims that Finlay McQuade's "landmark" study questions even the conclusion that formal grammar can help a select few of us. That is, Weaver asserts that the typical research on grammar and writing is not "fine-tuned" enough to prove that formal grammar can help

anyone; however, she continues, Finlay McQuade's study is finetuned enough to "somewhat" question the "optimistic conclusion" that formal grammar might be of "limited" aid to a select few.

Lest anyone think that I am making too much out of too little, I will demonstrate that Weaver's quoted praise of McQuade's study is not an isolated instance. McQuade's study is also referenced in her Slate Starter Sheet "On the Teaching of Grammar" (7) along with other studies under the topic of "research" that shows that "the systematic study of grammar" does not help in error avoidance or correction. Weaver's essay "Teaching Grammar in the Context of Writing" is reprinted, in slightly altered (shortened) form in her 1998 edited book Lessons to Share on Teaching Grammar in Context. The statement on McQuade's study is reprinted unaltered, except for the correction to the spelling of McQuade's first name. In Weaver's influential 1996 book Teaching Grammar in Context, she invokes McQuade's study as follows:

In short, these three studies [including McQuade 1980] as well as numerous others during the twentieth century indicate that there is little pragmatic justification for systematically teaching a descriptive or explanatory grammar of the language, whether that grammar be traditional, structural, transformational, or any other kind. (23)

In "Teaching Grammar in the Context of Writing," she writes the following:

No wonder that this [the reference is specifically to McQuade] and other studies have led research summarizers like George Hillocks (1986) to conclude that

None of the studies reviewed for the present report provides any support for teaching grammar as a means of improving composition skills. If schools insist upon teaching the identification of parts of speech, the parsing or diagramming of sentences, or other concepts of traditional grammar (as many still do), they cannot defend it as a means of improving the quality of writing. (16)

This last research summary by Hillocks, which is embedded within a research summary by Weaver, illustrates an additional point or two: it would appear from such a summary-within-a-summary that Weaver is not the only research summarizer who seems to think that McQuade's study challenges the basis for "teaching grammar as a means of improving composition skills." Given that Weaver does say "research summarizers like George Hillocks (1986)" and given that the first subject of the conjoined subject in the nominal clause "that this and other studies have led research summarizers like George Hillocks (1986) to conclude" specifically refers to McQuade, one would expect that Hillocks would refer to McQuade. However, Hillocks does not cite or refer to McQuade. Neither do Hillocks and Smith.

McQuade

The use of the word *landmark* to describe any scholarly study should be preceded by some thought, especially when the writer is writing for an audience that, perhaps for good reason (i.e., lack of time), seems to be largely reliant on "research summarizers." The *Oxford English Dictionary (OED)* gives the following two definitions for *landmark*:

- "An object in the landscape, which, by its conspicuousness, serves as a guide in the direction of one's course [...]."
- "An object which marks or is associated with some event or stage in a process; *esp.* a characteristic, a modification, etc., or an event,

which marks a period or turning-point in the history of a thing."

The first *OED* definition of *landmark* suggests that McQuade's study, if it is indeed a "landmark" study, should serve as a model for further research, that it should "guide" us in our pursuit of truth. The other sense of *landmark* would suggest that McQuade's "landmark" study should be a "turning-point in the history" of the investigation of formal grammar and the influence of formal grammar on writing.

Readers must examine very carefully, however, the research and especially the research summaries that support the antiformal-grammar position that has so influenced American education. Although Weaver's three other publications analyzed in this paper and referring to McQuade's study do not contain the following hedge, Weaver does write the following in *Teaching Grammar in Context*:

In contrast to the exceptionally detailed three-year study of Elley et al., Finlay McQuade's study involved a more modest investigation of the effect that his Editorial Skills class had on high school students. (22)

Weaver essentially paraphrases this qualification four pages later: "indeed, even the study by Finlay McQuade is impressive, given the various kinds of data he examined" (26). The problem is that the word modest is not explained. In context, McQuade's study may be modest in length or in detail. If teachers, readers, and researchers do not go directly to McQuade's study, they will not know that its "landmark" status is questionable. McQuade himself is typical of many writers on grammar in suggesting that he has read mainly research summaries rather than the primary research directly when he says that he finds his own study "more convincing than all the research studies on grammar [that he has] read about [...]" [emphasis mine] (30).

The problem that McQuade attempts to understand in his essay was that some of his students who had passed his Editorial Skills (formal grammar) class were identified (in an unspecified manner) to be "below a certain level [again unspecified] of competence in four areas--reading, writing, mechanics, and vocabulary" and required to take a "mechanics competence course" (27). So, in spite of McQuade's own good opinion of his grammar course and his students' good opinion of the course, results of some unspecified test signaled that his students had not learned the material of his course. Because of that test indication, McQuade used three different additional methods to test the effect of his course: two pre-test/post-test designs and one pre-course/post-course essay design. McQuade used no statistical analysis on his data and is proud of his methodology:

No matter how quasi-experimental our designs, our own results, gathered in our own classrooms from methods as objective as we can manage, are hard to ignore and might lead to greater personal significance than the statistician's level of .01. (27)

Although McQuade may choose not to test his results with statistics and *English Journal* may choose to publish the study, to refer to it as "landmark" and to imply that it is "fine-tuned" enough to rule out the usefulness of formal grammar instruction seem not only inappropriate but also misleading, especially as read in "research summaries." Because misrepresentation of primary research in research summaries is widespread in the genre, I here analyze in detail what McQuade actually said in his study vs. what Weaver says of his study.

McQuade's first pre-test/post-test design has the pattern OOOXO, where "O" represents an observation and "X" represents the treatment, that is, McQuade's grammar course. For the observations in this design, he used the grammar section from *The Cooperative English Tests* (CET), a series of tests that students in his school take at the end of each year. The most

particular problem with this test design is the use of the CET to determine whether his students have learned the material of his grammar course. McQuade tells us that the CET "is not perfect for the purpose, because it contains some items on skills I do not attempt to teach and no items on some other skills I do attempt to teach [. . .]" (28). Then he writes that his is "an inexpensive evaluation" and that in such an evaluation "any coordination of the available standardized tests and the program to be evaluated is likely to be accidental" [emphasis mine]. This is, of course, precisely why researchers carefully design test instruments and then run statistical procedures on experimental data--to rule out the Without providing means tests or even reporting exact numbers, McQuade concludes that students gained as much grammar knowledge in years that they didn't take his grammar course as they did in the year that they took his class. Furthermore, students who didn't take his grammar course gained as much grammatical knowledge as the students who did take his course. Since McQuade's study lacks external and internal validity because of the lack of control for test subject matter and the lack of statistical testing, the conclusions of his study do not apply to the general population (contrary to Weaver's claims in several publications) or reliably to his own students. The study's lack of validity is apparent in the following statement from McQuade's explanation of his first pre-test/post-test design:

One should expect, even hope, to work out the precise level of significance by a formula that is not beyond the capabilities of someone fond of metaphysical poetry, but I did not have to face that challenge. It was perfectly obvious to the naked eye that the changes brought about by Editorial Skills were less than significant. (28)

McQuade's second pre-test/post-test design is relatively simple, although it produces startling results. He gave as a pre-test the final exam for the previous semester's class. For a post-test, he "made up another final [for his course] as similar to the

first as [he] could make it" (28). McQuade reports that, "The class average on the pre-test, taken on the first day of the course, was actually higher than the average on the post-test, taken on the last day of the course." According to McQuade's eyeballing method of statistical analysis, he "untaught" his students grammar. In other words, they appeared to know more about grammar coming into his course than they did leaving his course. McQuade graded his own students' pre-course and post-course essays and found surprisingly, given the results of the other tests, that they had cut their errors almost in half by the end of the course. He again forgoes statistical analysis in favor of eyeballing the essays:

Again I might have used the appropriate formula to determine whether or not the difference is significant to the .01 level, but again I decided to forego the chance. I read the essays.

[. . .] The essays in the second set [. . .] are miserable. Their principal method of organization is a series of afterthoughts, and their sentences are awkwardly and I believe self-consciously constructed to honor correctness above all other virtues, including sense. (29)

McQuade then goes on to claim that the error-reduction was in minor, not major, grammatical errors and that the improvement occurred with only a minority of the students. The two minor errors that he mentions are punctuation of quotations and capitalization. Major errors are not detailed at all but are said to include "grammatical" errors and "general punctuation" errors. Before making claims regarding the destructive effect of grammar instruction on the essay-writing and even sense-making capabilities of his students, McQuade needed, however, to use multiple raters and to assure inter rater reliability. The most unfortunate step, though, is that which is taken by research summarizers who do not make absolutely clear the limitations of studies like McQuade's.

Weaver does not have sufficient basis for calling McQuade's study a "landmark," but Weaver is not the only research summarizer to praise McQuade's study as a "landmark." Schuster writes the following in an article published in 1999:

As mentioned earlier, some students appear to learn some grammar in their English classes (though serious questions about whether these students learn much of anything were raised in a *landmark* article by Finlay McQuade nearly two decades ago). [emphasis mine] (523)

From a close look at what Weaver and Schuster claim of McQuade's essay, what actually occurs in McQuade's study, and what McQuade claims about his study we can learn four things:

- 1. Question any article about English grammar.
- 2. Question those who distrust statistics.
- 3. Question research summaries especially.
- 4. Read as much of the primary research as is possible.

As we continue to investigate whether or not writing is affected by knowledge of formal grammar, we must determine whether and how students learn formal grammar. Too many studies test the "effect" of traditional grammar on writing, simply assuming that if one teaches grammar to students that they will learn it. For example, a direct reading of even the widely respected and admired New Zealand Elley study reveals that it skirts the issue of whether the students learned the material of their individual courses. For example, the following statement from the Elley report summarizes the test of whether the transformational-grammar group (of three test groups) learned the material of its group:

Students studied and analysed many sentences in order to discover and apply grammatical rules, and a mastery test given towards the end of the course showed that 94 percent

of the TG pupils were *largely* correct in their grammatical analysis of a set of typical sentences. [emphasis mine] (8)

Elley et al. do not tell us what it means to be "largely correct." They also do not tell us how "grammatical analysis" is operationalized. They do tell us that "94 percent of the TG pupils were largely correct," yet, partially on the basis of this "mastery test" and others, Elley et al. write, "It is difficult to escape the conclusion that English grammar, whether traditional or transformational, has virtually no influence on the language growth [e.g., writing skills] of typical secondary school students" The lack of a clear operational definition exemplification of what they mean by "mastery" of the grammar material is ironic since Elley et al. indicate in their introduction that one of the weaknesses of previous research in the area is demonstration of students' knowledge of grammar (6). Hillocks' 1986 Research on Written Composition, an impressive "meta-analysis" of some 2,000 works on research in written composition, labels Elley et al. as the "most ambitious study of the effects of grammar" of those examined and comments that "the measures were many and varied" (136); Hillocks and Smith claim that the "most impressive" study they reviewed was Elley et al. (596); in reprinting the Elley essay, originally published in 1975 in New Zealand Journal of Educational Studies, the journal Research in the Teaching of English states that it "seems a model of evaluation." Again, we cannot measure the degree to which students apply knowledge of formal grammar to writing, or even usage issues, until we know the degree to which they learn grammar.

The next section of this paper is a modest start toward answering the question in detail of whether and how university-level students learn traditional grammar.

Do They Learn It?

Students in two sections of a sophomore-level traditional grammar course (ENGL 207) that I taught in spring 2000 at Northern Illinois University did have "knowledge of grammar,"

operationally defined as statistically significant numbers of correct answers to multiple-choice questions. ENGL 207 is required of all English majors and minors at NIU, although the course is also popular among students of other majors and minors. The goal of the 207 requirement in the NIU English Department is the following: development of a shared grammatical vocabulary so that students and professors can communicate with one another about grammatical structures in composition and English literature. We do not assume or even speculate that students will necessarily improve in their writing after the conclusion of ENGL But we do assume that the students will learn the terminology and analytic skills that will allow them to understand the corrections made to their papers, understand discussions of recurring grammatical errors in their writing and literature classes, and participate in discussions of the grammatical form of literary style in their literature courses. Students may test out of the course by passing an exemption examination at the sixtypercent level. Of those few students (about twenty) who attempt the exemption examination each year, only eleven percent pass at the sixty-percent level.

In spring 2000, I gave three pre-tests and three post-tests in order to begin to determine whether and how students learned the material of the course. Each pre-test for the course tests the material of the immediately upcoming one-third of the course. Each pre-test, like each post-test, is fifty questions in length. Pretest one and post-test one cover word classes; structure of tense, aspect, and voice; and basic sentence structure. Pre-test two and post-test two cover phrase structure, clause structure, common word choice errors and how to avoid them, and common pronominal errors and how to avoid them. Pre-test three and post-test three cover common inflectional errors and how to avoid them; common modificational errors and how to avoid them; common clausal errors and how to avoid them; common mechanical errors and how to avoid them; and maintaining syntactic control. None of the tests is cumulative. Approximately one-half of the course introduces students to the basic structure of Modern English; the other one-half helps students use that knowledge to identify common errors in formal writing. Four weekly quizzes are given in each third of the course as well. The quizzes are ten questions each in length with the same multiple-choice format as the pre-tests and post-tests. The following illustrate one question from each of the three post-tests of spring 2000:

- 1. In the sentence "After he left, the party ended," the underlined word is an example of which of the following:
 - A. adjective
 - B. adverb
 - C. verb
 - D. preposition
 - E. subordinating conjunction
- 2. In the sentence "The airplane having come to a complete stop, the passengers began to collect their packages and move about the cabin," the underlined element is correctly classified as which of the following:
 - A. verb phrase
 - B. gerundive phrase
 - C. participial phrase
 - D. noun phrase
 - E. absolute phrase
 - 3. Which of the following sentences is grammatically parallel?
 - A. I have applied for positions in both the FBI and in the CIA.
 - B. I have applied for positions in both the FBI and the CIA.
 - C. To qualify for a position in either agency one must be intelligent, independent, and a physically fit individual.

The students of ENGL 207 are provided free access to my online textbook on traditional grammar: *Traditional Grammar: An Interactive Book.* The book is organized exactly as the course. Each chapter has alternating information and javascripted interactive pages. Each interactive page, with two questions per page on average, has five alternative pages that the students may work through all at once or on subsequent passes through the chapter. The interactive pages contain exercises of three types: multiple choice, fill-in-the-blank, and on-click. Each chapter ends with five interactive quizzes, each twenty questions in length. Each third of the book ends with five interactive exams, each fifty questions in length. All quizzes and exams are purely multiple choice.

Table 1 presents the results for a Wilcoxon Signed Ranks Test between pre-test one and post-test one. All tests are based on a one-hundred-point scale; distributions made the Wilcoxon appropriate.

Table 1: Results from Spring 2000 ENGL 207 First Pretest and First Post-test

EXAM	Mean	N	Std. Deviation
Pre-test 1	40.83	144	10.54
Post-test 1	73.85	144	18.52

z = -10.31; p < .001

One hundred forty-four students took both pre-test one and post-test one. There was an average 33.02-point improvement from pre-test to post-test. The difference between the mean scores on the exams produces a z value of -10.31, which is significant to the .001 level. The standard deviations of 10.54 on the pre-test and 18.52 on the post-test indicate that there was greater variation in the students' performance on the post-test than on the pre-test. That difference is consistent with the

students' entering the course not knowing the material in similar ways and to similar degrees and with their learning the material in relatively dissimilar ways and to different degrees.²

Table 2 presents the results for pre-test two and post-test two.

Table 2: Results from Spring 2000 ENGL 207 Second Pre-test and Second Post-test

EXAM	Mean	N	Std. Deviation
Pre-test 2	46.05	123	9.89
Post-test 2	66.99	123	17.57

z = -9.16; p < .001

The general pattern of pre-test one and post-test one is repeated with pre-test two and post-test two. The 123 students who took both tests perform significantly better on the post-test, and there is greater variation in performance on the post-test than on the pre-test.

Finally, Table 3 presents the results for pre-test three and post-test three.

Table 3: Results from Spring 2000 ENGL 207 Third Pretest and Third Post-test

EXAM	Mean	N	Std. Deviation
Pre-test 3	69.49	130	8.85
Post-test 3	82.28	130	10.47

z = -9.30; p < .001

The pattern of pre-tests one and two and post-tests one and two is repeated with pre-test three and post-test three. The 130 students who took both tests perform significantly better on the post-test, and once again there is greater variation in performance on the post-test than on the pre-test.

Conclusions and Implications

Examination of student performance in two sections of ENGL 207 at Northern Illinois University suggests that it is in fact possible to teach formal grammar to college students, a conclusion that would seem to coincide with our intuitions as teachers, but which must be verified empirically given the influence of studies such as McQuade's. On-going further research will answer questions such as the following:

- 1. What do students find easy to learn in ENGL 207?
- 2. What do students find difficult to learn in ENGL 207?
- 3. Which parts of ENGL 207 are most closely intertwined?
- 4. Is it possible to increase learning by changing the on-line textbook?

The answers to question 1-3 are partially obtainable through close examination of in-class pre-tests, post-tests, and quizzes. Thus, an analysis of pre-tests for spring 2000 shows that the students knew more prescriptive grammar than descriptive grammar when they entered ENGL 207. A glance at Table 4, which presents the mean scores for categorized questions on pre-tests and the results of a Friedman Test for differences among these scores, gives us a rough approximation of what the students knew when they entered a particular area of instruction in ENGL 207.

Table 4: Results from Spring 2000 ENGL 207 Pre-tests Arranged for Chapter Divisions

СН	TOPIC	Mean	N	Std. Deviation
1	Parts of Speech	29.47	101	10.79
2	Tense, Aspect, Voice	49.97	101	15.10
3	Subjects, Verbs, Complements	52.19	101	18.70
4	Phrase Structure	38.54	101	17.42
5	Clause Structure	32.44	101	13.83
6	Word Choice Errors	44.06	101	12.71
7	Pronominal Errors	71.04	101	13.62
8	Inflectional Errors	72.77	101	16.62
9	Modificational Errors	62.57	101	15.66
10	Clausal Errors	76.53	101	18.24
11	Punctuation Errors	70.20	101	12.73
12	Syntactic Control	64.06	101	14.15

 $X^2 = 663.70$; df = 11; p < .001

We see in Table 4 that a remarkable split in knowledge separates chapters 1 through 6 from chapters 7 through 12. Excepting chapter 6, the split is between descriptive linguistics and prescriptive rules. In fact, what the pre-tests show is that if all we were concerned with were prescriptive rules and if we were concerned with students knowing that material only at the sixty-

percent level, ENGL 207 would be unnecessary. However, one of the most important goals of ENGL 207 is to give students the vocabulary for discussing and writing about the structure of English. Thus, the pre-test data tell us that we are justified in taking a proportionally greater amount of time to teach structure than to teach avoidance of prescriptive errors. More detailed analysis of the data indicates dependencies in knowledge of English structure. For example, correlation tests indicate a strong dependency between knowledge of tense and aspect and knowledge of clause structure.

Only after I determine answers to the questions asked earlier in this section will I attempt to address the more controversial and much more difficult issue of whether or not ENGL 207 has a measurable effect on student writing. And even then, my expectations will be realistic. I would expect the instruction in ENGL 207 to affect only the ability to avoid prescriptive errors.

I also suspect that without continued reinforcement of explicit grammatical knowledge any positive influence of ENGL 207 on the ability of students to avoid prescriptive errors would dissipate in time. Furthermore, given the difficulty of investigating the impact of grammar instruction on writing, I suspect that the answer to the relatively simple question of whether ENGL 207 might help recent students of the course to avoid prescriptive errors is answerable only after the creation and markup of a large corpus of student writing, both pre- and post-instruction in ENGL 207, so that issues of internal validity such as proper sampling and statistical testing are possible.

This paper is a call to researchers, students, and teachers to read the original research on the relationship between formal grammar instruction and student writing. "Research summarizers" can misrepresent the original research, which is often less persuasive than it is represented. As my data from ENGL 207 suggest, there is much that is interesting, encouraging, and challenging in the details of how students learn traditional English grammar. The details are interesting in their revelations of how much my students already know when they walk into my

classroom for the first time and of how much interdependency there is in knowledge of a complex topic such as English grammar. The details are encouraging in that they demonstrate that the students appear to learn the material at least in so far as that learning is operationalized by objective tests. Finally, the details challenge us to devise more sophisticated yet still operational instruments to test grammatical knowledge and the effects of that knowledge.

NOTES

The pre-tests, post-tests, and the quizzes for ENGL 207 during the Spring 2000 semester are available on-line at http://www.engl.niu.edu/dhardy/sp2000/sp2000.html.

² The reliability of all post-tests was estimated with Kuder-Richardson 21: test 1 = .91; test 2 = .90; test 3 = .75. Kuder-Richardson 21 scores for the pretests were low (.47 to .58) since measures of reliability (internal consistency) will necessarily be low in pre-testing some students who may not be motivated to take the pre-test seriously. Future study will determine the cause of the fall in reliability on the third post-test (and a similar relative fall on the third pre-test); initial examination hints that it may be due to testing materials in the third examinations that are very different in difficulty. Future study will also improve the estimates of reliability of the pre-tests with a variety of strategies, including estimating the reliability of the pre-tests as post-tests with a different group of students.

WORKS CITED

- Asker, William. "Does Knowledge of Formal Grammar Function?" *School and Society* (January 27, 1923): 109-11.
- Braddock, Richard, Richard Lloyd-Jones, and Lowell Schoer. Research in Written Composition. Champaign, Il.: National Council of Teachers of English, 1963.
- Elley, Warwick B., I.H. Barham, H. Lamb, and M. Wyllie. "The Role of Grammar in a Secondary English Curriculum." Research in the Teaching of English 10 (1976): 5-21. (Reprinted from New Zealand Journal of Educational Studies 10 (1975): 26-42.)

- English Journal. Ed. Sue Miller. March 1, 2000. NTCE. Youngstown State University. May 7, 2000. http://www.cc.ysu.edu/tej/index.html
- Frogner, Ellen. "Grammar Approach Versus Thought Approach in Teaching Sentence Structure." *English Journal* 28 (1939): 518-26.
- Hardy, Donald E. *Traditional Grammar: An Interactive Book.* 1999. 11 February 2002 http://www.engl.niu.edu/dhardy/grammarbook/title.html
- Harris, Roland J. "An Experimental Enquiry into the Functions of and Value of Formal Grammar in the Teaching of Written English to Children Aged Twelve to Fourteen." Diss. U of London, 1962.
- Hillocks, George Jr. Research on Written Composition: New Directions for Teaching. Urbana, Il: ERIC Clearinghouse on Reading and Communication Skills and the National Conference on Research in English, 1986.
- Hillocks, George, Jr., and Michael W. Smith. "Grammar and Usage." Handbook of Research on Teaching the English Language Arts. Eds. James Flood, Julie M. Jensen, Diane Lapp, and James R. Squire. New York: Macmillan, 1991. 591-603.
- Hoyt, Franklyn S. "Grammar in the Elementary Curriculum." *Teachers College Record* 7 (1906): 473-94.
- Kolln, Martha. "Closing the Books on Alchemy." College Composition and Communication 32 (1981): 139-51.
- McQuade, Finlay. "Examining a Grammar Course: The Rationale and the Result." *English Journal* 69 (1980): 26-30.
- Memering, Dean. "Forward to the Basics." College English 39 (1978): 553-61.
- MLA Directory of Periodicals. 9th ed. Eds. David Bagnall and Martin A. York. New York: The Modern Language Association of America, 1999.
- Newkirk, Thomas. "Grammar Instruction and Writing: What We Don't Know." English Journal 61 (1978): 46-48.
- Peterson, Scott. "Teaching Writing and Grammar in Context." Lessons to Share on Teaching Grammar in Context. Ed. Constance Weaver. Portsmouth, NH: Heinemann, 1998. 67-95.
- Rapeer, Louis W. "The Problem of Formal Grammar in Elementary Education." The Journal of Educational Psychology 4 (1913): 124-317.
- Robinson, Nora. "The Relation Between Knowledge of English Grammar and Ability in English Composition." M.Ed. Thesis, University of Manchester, 1959.
- Schuster, Edgar H. "Reforming English Language Arts: Let's Trash the Tradition." *Phi Delta Kappan* 80 (1999): 518-24.
- Segal David, and Nora R. Barr. "Relation of Achievement in Formal Grammar to Achievement in Applied Grammar." *Journal of Educational Research* 12 (1926): 401-402.

- Symonds, Percival M. "Practice Versus Grammar in Learning of Correct English Usage." *Journal of Educational Psychology* 22 (1931): 81-95.
- Tomlinson, David. "Errors in the Research into the Effectiveness of Grammar Teaching." English in Education 28 (1994): 20-26.
- Weaver, Constance. Teaching Grammar in Context. Portsmouth, NH: Heinemann, 1996.
- ---. "Teaching Grammar in the Context of Writing." English Journal 85:7 (1996): 15-24.
- ---. "On the Teaching of Grammar." Slate Starter Sheet. Urbana, IL: NCTE, 1996.
- ---. "Teaching Grammar in the Context of Writing." Lessons to Share on Teaching Grammar in Context. Ed. Constance Weaver. Portsmouth, NH: Boynton/Cook Publishers, 1998. 18-38.