

When Is a Verb? Using Functional Grammar to Teach Writing

Leif Fearn and Nancy Farnan

ABSTRACT: While evidence shows that grammar study focused on identification, description, and definition (IDD) fails to enhance writing performance, the grammar most students study remains focused on the IDD tradition. We taught a functional grammar that featured what words do in sentences, rather than what words are called and how they are defined, to two sections of tenth graders while another teacher taught grammar identification-definition-description. Students completed a grammar test and submitted writing samples prior to, and following, the five-week treatment. Functional grammar students scored essentially the same as IDD students on the grammar test and in mechanical accuracy. However, they scored significantly better than IDD students in a holistic rating of writing. There can be a positive interaction between grammar instruction and writing performance if the grammar is functional and used for writing purposes.

KEYWORDS: grammar, grammar and writing, functional grammar, grammar instruction

Twenty years ago, Arthur Stern's article "When Is a Paragraph?" posed a revealing challenge to graduate-level Education students: identify the number of paragraphs into which a piece should be divided and show where the paragraph divisions should occur. Stern's students divided the 500-word essay into two, three, four, and five paragraphs, and provided credible justifications for their various paragraph arrangements, not all the same but logical, based on ideational shifts. At the same time, when Stern's English-teacher students self-reported their definitions of a paragraph, they presented a traditional view—a paragraph is a unit of discourse made of several sentences that develop a central idea around an identifiable topic sentence. In essence, their English-teacher conception of a paragraph was as a composition in miniature, based on structural design, rather than the ideational shifts that guided them in the exercise. Stern had uncovered a discrepancy between the operational understanding of the paragraph and student/teacher beliefs about it.

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This study is not about the paragraph; it is about the sentence. However, the disconnect that Stern found operating between definition—and function-based understandings of grammar is quite similar—a difference between how we understand grammar and how we teach it. We began with the premise, just as Stern might, that there is a mismatch between how we routinely *describe* something (in this case, a sentence) and approach instruction, and the operational reality of sentence grammar. We hypothesized that the operational reality is instructive to help students understand sentences and, more to the point, to write them more effectively.

Hillocks and Smith’s review of the literature twenty years ago highlighted the idea that teaching grammar and grammatical structures does not enhance writing proficiency. However, we continue to teach traditional grammar definitions, and ask students to identify grammatical elements, under the guise of teaching writing. Descriptive knowledge is further entrenched in the curriculum because of its inclusion in high-stakes tests. The English language arts course of study includes, and will continue to include, grammar. Many teachers are trained for, and believe in, the grammar they teach. Tests feature it. Education policy-makers believe it belongs. It can be tested objectively. We would not claim that descriptive grammatical knowledge in itself is useless or nonproductive. However, we do argue that the ability to define and identify grammatical elements is not related to writing skills. Furthermore, contrary to Mellon’s claim that grammar instruction does no harm, we would point out that time committed to descriptive and definitional grammar impedes the development of writing skills precisely because time committed to grammar is not available for writing.

We posed a question relative to grammar instruction which responds to a call by Hartwell for research questions in “more productive terms” (108). Our question focuses on how to articulate the grammar issue more productively: *Is there a way to teach grammatical structures that will satisfy high-stakes tests and teachers’ needs, and at the same time, positively affect writing performance?* We looked pragmatically at what “productively” means. As we argue, the grammar we teach in school is not going away. Therefore, the research focus should be on how to satisfy the reasons for its existence, and, at the same time, help our students write better.

DEFINITIONS AND DESCRIPTIONS vs. FUNCTIONS AND APPLICATIONS

Definition and Description

The verb is a useful place to begin, but we could just as well begin with nouns, adverbs, or adjectives, for the routine instructional approach is the same: identify, describe, define. For example, in 1979, Weaver states, “A verb is traditionally defined as a word that expresses action or a state of being or becoming” (“Grammar for Teachers” 111). Seventeen years later, Weaver’s definition is essentially the same: “Traditionally, a verb is said to show action or a state of being” (*Teaching Grammar in Context* 258-59). The assumption is that a verb is always a verb.

Student handbooks are another good source for the descriptive tradition. Hacker tells students, “the verb in a sentence usually expresses action (*jump, think*) or being (*is, become*)” (267), and Raimes, “Verbs tell what a person, place, thing, or concept does or is, or what people, places, things, or concepts do or are: *smile, throw, think, seem, become, be*” (237). Mulderig tells readers, “verbs not only present an action or a condition, but also indicate a time frame within which that action or condition occurs—at present, in the past, in the future” (59). Gordon writes, “a verb is the momentum in the sentence. It asserts, moves, impels, reports on a condition or situation. What the verb asserts may be an action or an identity or a state of being” (18). Finally, in a grammar text for K-12 students, we have Carroll describing a verb as “a word that shows action or state of being” (87). In all the texts and handbooks we examined, the descriptive essence of “verb” changes little, save for adjustments in wording or phraseology. Carroll’s description in 2001 is precisely the same, down to the word, as the one required on junior high grammar tests handed to students many years ago, for example as in the tests by Leif’s junior high teacher, Miss Bessie Ott, in 1952. Miss Ott taught IDD grammar through endless diagramming exercises because she believed her instruction would make Leif and his seventh-grade classmates better writers. In 1952, she reflected what the profession knew. In 2007, we know better.

A Different View: It Is All in the Preposition

Does this all mean that we should not teach sentence parts any more? Of course not. What we know is that such instruction *for* writing wastes

students' and teachers' time, and deludes both into believing they are doing something useful. The preposition is wrong. A different perspective would have us shift the preposition to sentence parts in writing, helping us reframe our productively oriented question: *Will teaching sentence parts in writing affect students' writing performance?* We recognize students' experience of grammar as traditional, tending toward the *descriptive*, that is, as young writers have been taught definitions, and that this knowledge has not influenced students' writing. In this study, we probed the influence on students' writing when teaching focused on how sentence parts *function*.

The second reason for what we taught and studied is that grammar instruction also tends to be separate from student writing, even when we claim it is in the context of writing. Typically, students learn grammatical elements in one portion of English language arts class, experience literature in another portion, and write in still another. Just as this practice flies in the face of modern instructional theory that calls for contextualized instruction, we acknowledge that much of what occurs in classrooms flies in the face of modern instructional theory.

Thus, the idea to feature *prescriptive* rather than *descriptive* instruction. Students wrote in the grammatical functions (i.e., prescriptions), studying them rather than defining them, and searching for them in what other people wrote. We studied the influence, if any, of functional instruction *in* the writing performance of tenth graders. And as we acknowledge the educational value in knowing sentence parts, we also tested students' knowledge of traditional grammar when the instruction occurred in functional context.

A Functional Perspective: The Verb We Taught

We asked tenth graders in two class periods, *What is a verb?* The response was immediate and consistent: "It shows action or state of being."

"What is an action word?"

Student: "Running."

We wrote a sentence on the board: *A horse is running around the track* and asked the student, or anyone else who wanted to respond, "What is the verb?"

Student: "Running."

We wrote another sentence on the board: *Our new running track is rubberized* and asked for the verb.

Student: "Running."

When we asked what kind of track is around the new football field,

they agreed it is rubberized. We asked how else they could describe the track. They said “new” and “red.” We asked what people do on the track, and when they said kids run on it, we said that would make it a running track. They agreed. We asked what kind of word “track” is. Noun. “So what kind of word describes that noun?” we asked. They said “running.” We asked if “running” could be the verb if it is a describing word for the noun “track.”

They looked as though they had just been told the earth is flat. We asked what we call a word that does what “running” does in that sentence. Another student said it has to be an adjective, but the -ing at the end shows action so it has to be a verb. We asked if “running” acts like an adjective, what would be the verb? Still another student knew the answer. She said it has to be “is” because it shows a state of being.

These tenth graders were quick with the opening definition, but not because they were special; they were merely well-schooled in the definitions of sentence parts. They knew the definition of verb in the second grade and were reminded of it in every grade thereafter. By the middle of the tenth grade, they had “action and state of being” taught, reinforced, and tested for nine years. They had it cold. They didn’t understand it, they couldn’t use it, they couldn’t apply it, and, therefore, it was of no use to them when they talked, read, wrote, or, for that matter, answered questions from someone who didn’t stick to the script. But our script was functions, not definitions and descriptions. Function identifies verbs as they occur in sentences, not lists. “Running” is an adjective in the sentence because it does what adjectives do; “is” is a verb because it does what verbs do.

Some may argue that “running” is not an adjective in the sentence; rather, it is part of a hyphenated noun (*running-track*) and is, therefore, more gerund in the sentence than adjective. And all of the students in that tenth grade who grow up to be linguists or English teachers will have to grapple with that distinction. On that day, in that classroom, there were a couple dozen fifteen-year-olds who didn’t understand what a verb is, or an adjective, because they depended on definitions. Rather than confuse them further with a new definition (gerund), we took all their definitions away.

We went back to our sentence and asked for words that fit between “new” and “track,” and as they called out words, we wrote them in a column between “new” and “track.” They suggested “fast,” “red,” “pretty,” “bigger,” “spongy,” “lined.”

Teachers: “Do you know what these words are?”

Student: “They’re describing words. Adjectives.”

Teachers: “Why?”

Student: “Because they tell about the noun.”

Teachers: “Yes, maybe, but the best answer is that they are adjectives because they fit in that hole between “new” and “track.” Any word you put in there will describe the track, so it will do the work of an adjective. And verbs? Think of words instead of ‘is’ for the sentence.”

They suggested “was, will be, used to be, can be.” They laughed. We agreed it is funny to think about the kinds of words that do certain work in sentences rather than to try to identify words by dictionary definitions. Our lesson on verbs allowed us to offer, “We are going to do something different here for several weeks.”

METHODOLOGY

Sample

Treatment and control students attended an urban high school. In this overcrowded high school of 2,300 students, the average student scores below grade level in both reading and mathematics, and research shows that score patterns in reading and mathematics hold for writing as well (Smagorinsky 55). The school’s average student tests in the lowest 10% of all high school students in the state. Year to year, an average of 65% of the school’s students are classified as limited English proficient, and nearly 100% are eligible for free or reduced lunch. Forty percent of the adult residents in the larger neighborhood have not graduated from high school; 5% have graduated from college. The demographics seem to signify a complex teaching/learning situation.

For five weeks, for ten to twelve minutes twice a week, on Mondays and Wednesdays, one of the investigators (both university professors who work regularly in K-12 classrooms) conducted intentional instruction (Fearn and Farnan *Interactions* 74) of grammar *in* writing in each of two treatment classes. On Tuesdays and Thursdays, the classroom teacher followed up on the Monday/Wednesday instruction with eight to ten minutes of review and writing practice in the grammatical elements. Thus, students received approximately twenty-two minutes of intentional instruction and eighteen minutes of guided practice during each of the five weeks of the treatment for approximately two hundred minutes of instruction. A similar amount of time was committed to traditional grammar instruction in a control group of tenth graders in the same school.

All three classes contained twenty-four to twenty-six tenth graders

who worked on a similar grammar unit: noun, verb, adjective, dependent clause, and independent clause. Immediately prior to the initial instructional session, we collected a cued and timed writing sample from all three classes (See Appendix A). In the same session, all students responded to test items that covered several grammatical items and structures. This test included eighteen items (See Appendix B). The pre-grammar test was administered to establish equivalency among the three groups.

The Process: Teaching Grammar *in* Writing

The instructional emphases in the two treatment classes were function and writing. Function refers to what a grammatical element *does* in a sentence. To the extent that definitions were used at all, they were functional.

Basic function instruction in the two treatment classes was limited to ten to fifteen minutes throughout the five weeks because in most instances, we did precisely what we did with verbs in the rubberized running track example, for the same reason – to replace the definitions with roles and functions. The preponderance of the treatment emphasized writing. For example, following the verb-in-rubberized-running-track opener explained earlier, we posed a thinking and writing task. *Select one of the verbs on the list and write a sentence in your mind that uses that word as a verb.* They all started scrambling for paper in their backpacks. We stopped the action. *Forget the paper and pens. Think of a sentence and write it in your mind.* We used the oral foundation of writing (Fearn and Farnan *Interactions* 79). *Now think of a sentence in which one of the words on the list appears as a verb.* We listened to several mental sentences read aloud, e.g., *The old track **used to have** dirt and cinders. The new track **will be great** to run on. Rubberized tracks **are** better.*

We posed another sentence-thinking and -writing prompt. *Think of a six-word sentence in which another of the words on the list appears as a verb* (Fearn and Farnan *Interactions* 87-95). Several hands went up to share. We waited until about half of the students indicated they had a sentence. *Write your sentence on your paper. You have one minute.* We listened to several read aloud, e.g., *Our old track **was** really bad. I **like** our new track now. The new track **can be great.*** They all read sentences. We expected to have to help someone make a revision to accomplish a sentence, but there were no nonsentences read aloud. It is rare, in our experience, that students write nonsentences when sentence-writing prompts direct students to think in an explicit manner.

We posed the next prompt in the series. *Think of an eight-word sentence*

in which one of the words on the list appears as a verb in the fifth position. When a student posed a question about two-word verbs, we assured everyone that they could consider their verb as one word for this activity. We directed them to write their sentence on paper and to read aloud. We commented occasionally. One student wrote, *“A yellow spotted bird will be in its nest.”* We asked why he wrote *yellow spotted* instead of *spotted yellow*. He said because it just seemed better to say *yellow spotted*. We made a pronouncement to the class. *During the sessions when we are here teaching grammar, you may trust your instincts about what seems right. If we hear it differently, we will explain why and help you understand how we hear it.*

When our pre-service teacher candidates saw one of the videos from our sessions in those classes, several expressed indignation. *Why do you say that your instinct is the one they have to learn; is not their instinct just as valuable as yours?* We explained that a fundamental part of any language instruction is to value and capitalize on the “internal” grammar (Hartwell) that students bring with them, their sense of how language works. Of course, their sense is not always conventional. It is teachers’ responsibility to help students recognize how distinctions between students’ internal grammar and the attributes of convention work. Usually, those distinctions become most clear in oral language.²

Our instructional scenario about verbs consumed two sessions. The sentence-thinking and -writing tasks varied greatly, but they stayed focused on using verbs intentionally in sentences. Before changing the focus to nouns, we prompted writing beyond a single sentence. We used “Short Cues” (Fearn and Farnan *Interactions* 230) at least weekly throughout the treatment. An example of a Short Cue is Power Writing (Fearn *Thinking for Teaching* 124; Fearn and Farnan *Interactions* 167-69), where the focus is fluency (Fearn “Individual Development” 55-64; Guilford 444-54) and promotes automaticity (Fearn and Farnan *Interactions* 27-28). We wrote two words on the board (*mosquito - taxi*), directed each student to *select one of the two, and use it as the topic about which to write as much as you can as well as you can. Oh, and include as many verbs as you can.* At exactly one minute, we called time, directed them to count their words, and recorded their totals on a chart on the board (Fearn and Farnan *Interactions* 168). We called that *round one*. We directed *rounds two* and *three*, each time with a different pair of cue words, each time one-minute writes, and each time telling them to include as many verbs as they could. After *round two*, we asked them to count their verbs, as well. We didn’t record the number of verbs; we cared only that students were thinking about verbs as they wrote.

Over the remaining four weeks, we moved very quickly through the grammatical elements. We taught noun, verb, adjective, and dependent and independent clause. We remained within the limits of what the control teacher taught in the five-week unit.

Teaching Grammar Traditionally

In another class during the same five-week period, an English teacher on the other side of the school campus taught grammar to demographically similar tenth graders. He agreed to cooperate with every aspect of the study, confident in the appropriateness of what he taught and how. He taught nouns, verbs, adjectives, and dependent and independent clauses during the five-week period of the study. His students read aloud daily and responded to his identification questions that focused on nouns, verbs, adjectives, and both dependent and independent clauses. He led his students through identification worksheets that contained sentences he wrote and others he cut from literature anthologies and pasted onto worksheets. He supplied cloze procedure worksheets that contained sentences with missing nouns, verbs, and adjectives so students could write the words they thought made the best sense into the blanks. In most class sessions, his students edited prepared sentences to make nouns and verbs agree, and completed nonsentences (dependent clauses) by adding independent clauses. They also wrote extended discourse every day, following writing process stages depicted on a wall chart. The control class used the entire forty-seven minute period for grammar instruction and process writing, partly because the writing they did took so much more time than did the treatment students' writing, and partly because the worksheet activities were so time-intensive.

Data Collection

Having established general grammar knowledge equivalency between the two treatment groups and between the treatment groups and the control group before the treatment began (See Table 4), the post-test included grammar applications as well as writing. There were seven items on the grammar applications test, each beginning with the stem: "Write a sentence..." Item one read "Write a sentence that contains exactly two nouns, one of which is modified by a prepositional phrase" (See Appendix C).

Pre- and post-writing samples were scored both analytically and with

a general impression rubric (See Appendix D). Analytic scoring quantified fluency and mechanical control (Fearn and Farnan, *Interactions* 343). General impression scoring (G-score) occurred on a six-point scale in consideration of four attributes: the writing is on-point, elaborative, organized, and textured (for example, figurative language). The six-point general impression scale is absolute; that is, a 1 is rudimentary, no matter students' grade level, ethnicity, primary language, or socioeconomic class, and a 6 is as well as the piece is likely to be written by an experienced writer.

The writing samples reflected first-draft writing. While anecdotal criticism of assessing first-draft and teacher-prompted writing was not lost on the authors, we used first-draft writing in the absence of empirical evidence of an interaction between writing quality and the source of writing prompt (Hidi and McLaren 187-97). The writing samples were also timed at five minutes, again in the absence of evidence of any interaction between writing quality and available time. In fact, a contrary conclusion relative to prompt-source and time appears more sound.¹

We scored the writing samples analytically and independently in a double-blind procedure, having had a colleague mix the treatment and control grammar tests and writing samples. Inter-rater reliability on analytic scoring is traditionally very high, given that the analytic protocol is largely objective. In this study it was 97%.

Three trained raters conducted the general impression scoring. Inter-rater reliability on g-scoring was 96%. Finally, the seven-item grammar test was scored by the investigators. Because each item on the grammar test was clearly correct or incorrect, there was no need to cross-check the scoring process.

RESULTS

What is the effect of teaching grammar *in* writing rather than *for* writing? Results show that the effect, as measured by both writing performance and grammar application, is two-fold. Students in the treatment groups demonstrated enhanced writing performance, while students in treatment and control groups showed no difference in their knowledge of grammatical elements in the testing situation. Table 1 shows the pre- and post-writing effects using a holistic rubric in both treatment and control groups.

Table 1. Pre-Writing and Post-Writing G-scores

	Pre-Writing Scores			Post Writing Scores		
	Mean	SD	P value	Mean	SD	P Value*
Treatment Class: Period 1 N=18	2.94	.938	P < .621	3.61	1.09	P < .002
Control Class N=18	2.78	1.06		2.61	.698	
Treatment Class: Period 2 N=21	2.95	.805	P < .563	3.48	.928	P < .003
Control Class N=18	2.78	1.06		2.61	.698	

* Bold face indicates significant differences between treatment and control groups.

Treatment students in both Periods 1 and 2 wrote significantly better on the post-writing sample based on the holistic (G-score) criterion. While the instructional emphasis in the treatment classes was writing, i.e., teaching grammatical elements *in* writing, the control teacher also emphasized writing. Control students wrote extended discourse every day, always following a process writing protocol. In fact, control students wrote more each day (extended discourse) than treatment students, who wrote directed sentences each day in response to grammar-driven prompts, and additional extended discourse at least weekly, though never more than twice per week. The evidence appears to show that grammar instruction and process writing, as two distinct activities, though occurring during the same instructional period, do not positively influence the quality of writing performance as powerfully as does directed writing practice driven by grammar content. It is not the grammar instruction, then, nor the process writing; rather, the more powerful influence on student writing comes from *directed writing*, where students' attention is focused on using grammar to think about writing. This is what grammar *in* writing appears to accomplish.

Another way to look at the post-test differences is to compare the holistic scores themselves (See Table 2) and look at sample papers as exemplars (See Appendix E).

Table 2. Frequency of Post-writing Sample G Scores

G Scores	Treatment Group (Period 1)	Control Group
5	1	0
4	3	3
3	11	7
2	7	10
1	0	0

In the treatment group Period 1, fifteen writing samples were scored at 3 or above, while in the control group, only ten scored in that range, with no paper receiving the highest score of 5. In other words, five fewer papers received an average score or above in the control group, with three more papers scoring below the average possible score. Exemplary papers from treatment and control students show what the scores tend to mean in the students' writing.

Analytic scores showed remarkable post-writing sample stability among the three groups with respect to fluency and mechanical control (See Table 3), where fluency refers to the number of words written in five minutes, and mechanical control refers to average number of errors per sentence (i.e., punctuation, capitalization, spelling, tense agreements).

Table 3. Pre- and Post-writing Sample Data on Fluency and Mechanical Control

	FLUENCY PRE-TEST	FLUENCY POST-TEST	MECHANICAL CONTROL PRE-TEST	MECHANICAL CONTROL POST-TEST
Period 1 Treatment Group	75.6	93.1	1.3	1.3
Period 2 Treatment Group	64.5	88.0	1.6	1.3
Control Group	62.4	88.1	1.3	1.2

While more is not necessarily better when it comes to writing, young writers tend to become more fluent over time—with increasing practice and expertise. That is the case with these students in both treatment and control groups. Interestingly, their error rates per sentence are not only stable from pre- to post-test, they are also stable between treatment and control classes. Neither instructional procedure influenced writing fluency, positively or negatively. The tenth graders' ability to generate ideas and produce text that explicated those ideas was neither enhanced nor compromised by the mode of instruction, either traditional/descriptive or functional/grammar-driven writing instruction. Likewise, neither mode of instruction seemed to influence students' use of mechanics and the conventions of written text. Even the seeming difference in the treatment group Period 2 (1.6 errors per sentence) represents, on the average, only two additional errors in every ten sentences.

To summarize, the grammar-driven writing instruction enhanced writing performance as measured by holistic criteria, while traditional grammar instruction, separate from writing instruction, did not influence writing performance. Furthermore, the more traditional grammar instruction had no greater influence on students' error rate than did the grammar-driven writing instruction that was not directed at reducing error rate. And neither form of grammar instruction was superior with regard to students' fluency, not even in the control class where “process” writing emphasized ideational fluency during prewriting.

Part of this investigation was grammar knowledge itself. The evidence appears to show that time committed to grammar instruction need not compromise students' writing development, if grammar is taught in the context of writing, as part of writing instruction, but what about students' grammar knowledge? Table 4 shows differences in student performance on the grammar test.

Table 4. Pre- and Post-Test Scores on the Grammar Test

	Pre-Writing Scores			Post Writing Scores		
	Mean	SD	P value	Mean	SD	P Value*
Treatment Class: Period 1 N=18	3.67	2.03	P < .492	4.00	2.14	P < .324
Control Class N=18	3.17	2.28		4.72	2.19	
Treatment Class: Period 2 N=21	3.05	2.01	P < .863	4.00	2.35	P < .330
Control Class N=18	3.17	2.28		4.72	2.19	

Results show no significant differences between treatment and control students, in either of the two comparisons (treatment 1 vs. control and treatment 2 vs. control), at either pre- or post-testing. The students were equivalent when the investigation began, and they were equivalent when it was finished. The formal, more traditional, grammar instruction in the control class did not produce significantly superior grammar test performance for control students. If the ability to define, identify, and use sentence parts (parts of speech) is the objective, then grammar-driven writing and formal grammar study appear to be equally influential. Teaching grammar *in* writing had a similar effect on grammar knowledge as did the more traditional grammar *for* writing. This research suggests that there is a critical difference in the two approaches to grammar instruction. The emphasis on writing did not compromise grammar knowledge, but it did enhance overall writing performance.

In addition, in every comparison, fluency was neither enhanced nor compromised by the form of instruction. Neither was error rate reduced or increased due to the form of grammar instruction. Whether teaching grammar *in* writing or *for* writing, students in treatment and control classes performed equally well on grammar knowledge.

CONCLUSIONS

Is there a way to teach grammatical structures that will satisfy high-stakes tests and teachers' needs, and at the same time, positively affect writing performance? Evidence from this research indicates there is. Take the two purposes in turn.

High-stakes grammar tests reinforce the ability to define and identify. We may not agree that define-and-identify is grammar, but that is what students must do to perform well on today's achievement tests. Define-and-identify is also what many teachers value. But define-and-identify is just as likely what most teachers know because they have rarely seen grammar as a branch of study within linguistics and an area within linguistics that focuses on the organization and reorganization of words and inflections to construct larger meaning (Francis 223), and how that occurs, in this case, in American English.

The evidence in this investigation indicates that if students think deliberately about how sentences are constructed, and the prompt for their thinking is grammatical terminology, they learn to define and identify as well as do students who study define-and-identify in isolation. The reason why is likely more cognitive than linguistic. While it is possible to work with definitions and attributes without attending deliberately to the content and function those definitions and attributes describe and organize, it is impossible to fail to deliberately attend when the content and function are embedded in a writing task. We can do most things in school with our attention elsewhere, but few people can write while thinking of something else. It is probably the deliberate attention (Neisser 90-91), mobilized when students must focus on both verb and verbness, over and over, every time "verb" is used as a sentence-thinking and sentence-writing prompt, that promotes verb learning. For these tenth graders, it was used every day, over and over, with noun, verb, adjective, and dependent clause.

The power of functional grammar instruction is seen in treatment students' performance on the grammar test. Treatment students equaled control students' test scores, even though they did not have formal grammar instruction of the traditional type. What treatment students received was a functional "definition" ("It's a verb because it fits in the verb hole and does what verbs do"), and then they wrote scores of sentences prompted by verbs ("Write a nine-word sentence with a verb in the seventh position"). Five weeks of that was sufficiently powerful for them to perform as well as

their control peers who learned definition and identification in traditional form.

That there is no discernible difference in effect relative to grammar for the two groups documents the power of using grammar *in* writing, where grammar is used as the prompting device, rather than *for* writing on the assumption that grammar is supposed to transfer to writing. It does not transfer (Hillocks and Smith). Grammar instruction influences writing performance when grammar and writing share one instructional context. The field of *situated cognition* rests on the proposition that the context in which something is learned is fundamental to its application (Brown, Collins, and Duguid 32-42). When grammar is taught and learned in a define-and-identify context, that becomes the context in which the grammar can be applied. So we find students who can identify and define verbs but do not use verbs adroitly when they write because they did not learn verbs in sentence thinking and writing. When we see verbs used badly, or not at all, in sentence writing, we teach verbs, again, and then we teach the writing, again. The general impression (holistic) scores reflect the significance of the differences between treatment and control students' writing performance.

Teaching grammar *in* writing rather than *for* writing, over a relatively short treatment time, five weeks, resulted in both superior writing and equal grammar test scores for treatment students in a four-attribute rubric. We draw several important conclusions from these results.

- One: Writing can be the context when we teach grammar. We can use writing to teach the grammar we want to teach.
- Two: Traditional grammar instruction did not affect error rate; both groups committed about an equal number of errors when they wrote.
- Three: If the purpose of grammar instruction is to satisfy standards and prepare for high-stakes testing, we can teach sentence parts and enhance students' writing at the same time without compromising either. The instruction about adjectives, for example, focused on the function of adjectives in sentences, so students learned to understand adjectives' purpose and to use them properly when they wrote sentences. Moreover, the learning transferred to writing itself, for holistic scores were heavily affected by elaboration (i.e., modification and qualification).

Shall we teach grammar? Of course. This study does not call into question grammar instruction; it calls into question how we teach grammar. It shows how a certain kind of grammar study establishes grammar knowledge as it positively affects writing performance. If the point is writing, perhaps it is reasonable to ask why teach grammar at all? We think the reason is similar to the reason why we teach the Periodic Table of Elements in chemistry. The table is not chemistry, and knowledge of the table does not make chemists. But the table is chemistry's taxonomy, its explanation, its elemental foundation. The table provides a context for the content. Music has a taxonomy, as well, and while mastery of the taxonomy does not make musicians, it is a rare musician who functions without it. It is a rare chemist whose background does not include mastery of the taxonomy.

It is a rare writer, novice or expert, whose background does not include the taxonomy, the grammar. We do not mean that writers know the definitions. We mean that writers have to be able to rub nouns and verbs together when they write, and rub nouns and verbs together with modifiers and qualifiers to enhance meaning, so images and ideas emerge in readers' minds and souls. We mean that grammar is the terminology of syntactic concepts, the words and ideas for talking about sentences. Grammar knowledge is the elemental foundation for writing. Certainly we should teach grammar, *in* writing, so learners understand better how the language works, and *functionally*, so learners can use what they understand about language when they write.

Notes

1. There is a sizeable literature on interactions between oral language and writing (Sperling 53-86).
2. There is evidence to show young writers write well, or not well, because that is how they write, irrespective of whether or not they selected their topic or dictated their writing time (Fearn and Farnan "Writing Instruction"; "Writing on Demand").

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Appendix A

Direct Writing Assessment

Writing assessment takes two forms: analytic to inform instruction, and G-score to better inform students and the larger public. This assessment will score for both forms, and that is the reason for the following directions. The assessment must control for both task and time. Students must write to the same prompt and for the same amount of time.

There is a belief that if students are to write as well as they are able, they should select their topics and write for as long as they feel necessary. This belief, while widely held, enjoys little or no confirming evidence. In fact, students write about as well as they are able when they write, irrespective of time or prompt. They write well because they can.

Please follow these directions to ensure equivalence.

1. Everyone has a sheet of paper and a writing implement, preferably lined 8 1/2 x 11 lined paper and dark lead or ink.
2. You will write as much as you can, as well as you can, for five minutes. Think of a place where you feel comfortable, safe, at ease. It could be inside or outside, a park, a room. It could be that you feel most comfortable in the company of friends or family. This is probably a place to which you return often because it feels good. Think about that place, what is there, and why you selected it. Write as much as you can as well as you can about that place. You have five minutes. Go.
3. At exactly five minutes, students should stop and count their words. They write the word-count at the top of the paper and turn in the papers.

Appendix B
Grammar Pre-Assessment

In the following sentences, underline the **subject** once and the **verb** twice.

1. Running across the lawn, the excited puppy raced to greet his owner.
2. I would like to go to the next Olympic Games.
3. Are you going to the birthday party?
4. Ellie fell over the toys and landed on her sore shoulder.
5. After dinner, we saw a movie about the life of a brilliant mathematician.
6. In some neighborhoods, people do not know the names of their neighbors.
7. My favorite book is *Harry Potter and the Sorcerer's Stone*.
8. The weatherman predicted heavy rain through the evening.

In the following sentences, underline each **adjective** once, each **adverb** twice, and put an X over each **pronoun**.

9. Running across the lawn, the excited puppy raced to greet his owner.
10. I would like to go to the next Olympic Games.
11. Are you going to the birthday party?
12. Ellie fell over the toys and landed on her sore shoulder.
13. After dinner, we saw a movie about the life of a brilliant mathematician.
14. In some neighborhoods, people do not know the names of their neighbors.
15. My favorite book is *Harry Potter and the Sorcerer's Stone*.
16. The weatherman predicted heavy rain through the evening.

Appendix C
Grammar Applications

Name: _____

Date: _____

1. Write a sentence that contains exactly two nouns, one of which is modified by a prepositional phrase.
2. Write a sentence that contains two pronouns, one of which is neither male or female.
3. Write a sentence that contains a verb that does not end in “ing” or “ed,” and use a prepositional phrase to modify your verb.
4. Write a sentence that contains an adjective and an adverb, but the adverb is not the last word in the sentence.
5. Write a sentence in which the subject is “old shoes.”
6. Write a complex sentence in which the first word is “because.”
7. Write a sentence that uses “but” to connect two independent clauses.

Appendix D
G-score Rubric

This rubric generates a G-score that transcends analytic scores. The rubric features four attributes of good writing.

- The writing is on-point. The writing focuses on the prompt or the requirement.
- The writing is elaborative. There are descriptive elements and explanations such as, “It is a hot and sunny day so the sun is shining brightly in the blue sky.” And “I feel the cool water on my toes.”
- The writing is organized/sequenced: There is a recognizable system of organization in the paper.
- The writing contains relevant extensions (texture). The rubric gives credit for figurative statements such as, “When you look at the grass and the sun’s reflection on it, the shine in your eyes is like if you saw a silver coin on the ground.”

Mechanical control is not scored in this rubric unless the writing is so far out of control that the four primary attributes are severely compromised.

Score each sample on an absolute **6-point scale**. “Absolute” means “as well as the paper can be written.” Fully literate writing would be scored a 6. In this rubric, good writing is scored 4-5-6; poorer writing is scored 1-2-3.

Appendix E

Sample Exemplars

These writing samples appear exactly as drafted in response to the prompt (favorite place) and in exactly five minutes from statement of the prompt to pencils down and papers collected.

Treatment, Score 5

I would like to have a house in a tropical land. I want to feel the fresh air go threw my window and blow my air to the sides. I want to go to the river and swim when it's hot. I want to heard the small birds sing when I wake up. And I want to see the beautiful green leaves that are outside. Also on special occasions I want to go outside and take a bunch of flowers to give to special someone. I want to feel free to scream and I want at night camp outside make a small fire and eat marshmallows. I want a clam place where I don't have to think about my problems. I want a place where I can relax and grow old but happy. I want my house in a tropical island. But until then I'm going to enjoy my life in the city where I am allowed to work and worry about other things.

Treatment, Score 4

I'm singing in the choir stand and I'm, singing one of the songs we sing every time we practice on Thursdays "Oh Magnify the Lord." It was the first thing that popped into my head because I love tossing. Another place that I went in my head is when I write in my poetry book journal and it doesn't matter where I'm at because I write wherever, whenever. It is so relaxing and peaceful to me. It is the best time to think, especially when it's quiet and peaceful and it makes me happy.

Treatment, Score 3

My favorite place is a place where no body can be except me, which is my closet it like a little room where there's light. I don't lave a lot of things in this closet so there's alot of space for me to sit. Well in this closet I get a lot of ideas of what to do during the weekend and I also like this place because I have my own stars to where I could look which even day I would like to even in the day. These stars are glow in the dark stars.

Treatment, Score 2

The place I'm describing is a place from Mexico is a street. around that street there is a big building all around you on the walls of the street ther's grafitti everywhere all over the walls of the buildings. Friends all over the place drawing more pictures, sketing, drinking or dancing.

Control, Score 4

The majestic blue water slaps the Shore line ever so softly. While the sun reflects perfectly of the ocean. The Sand warm, with my towle in a perfect rectangle. I am in a place of comfort and total relaxation. A bare beach except for me and the few palm trees that layed scattered in irregular spots of grass. I smell the animals salty bodies threw the gentle breezes of the water.

Control, Score 3

I like to go to my Aunts house. She lives in Los Angeles. The reason why I like going over there is because it's a nice place to think & relax. When you tire you could just lay there and no one will bother you.

Control, Score 2

My favorite place would be my old school. I went there for 3 years and one semester. I grew up there. I had to change schools. That is one of my favorite places in the whole world. I always go when I have a chance.

That school is my most favorite place in the world.