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Specific strategy instruction to enhance revising and editing skills for the learning disabled

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Specific Strategy Instruction to Enhance Revising and Editing Skills for the Learning Disabled

by
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ABSTRACT

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Dr. Stanley Urban, Adviser
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For years, research and replications of research have supported the findings that grammar taught in isolation is at best ineffective. As a result, some teachers have abandoned grammar instruction altogether. Other teachers are unaware of the findings or simply choose to ignore them. With so many mildly handicapped students being placed in regular education classes, these curricular decisions are having an impact on their success in producing correct written communication.

This study compares eleven learning disabled seventh grade students taught in the mainstream with traditional grammar instruction to nine learning disabled peers taught in a resource center with specific strategy instruction. The *Test of Written Language-2 (TOWL-2)* measures competence using Form A for a fall pretest and Form B for a spring posttest. A comparison of national percentile rankings by percentage of change (increase or decrease) is the basis for comparison. A self-evaluation questionnaire completed on both testing dates measures confidence.

The experimental group improved significantly on all subtests of the *TOWL-2* related to revising and editing. Neither group showed any improvement in personal confidence with regard to their revising and/or editing skills.

ABSTRACT

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Some mildly learning disabled students are unable to acquire revising and editing skills without specific instruction. Current mainstream instruction does not always afford them the strategies they need for these skills.

Using the *TOWL-2* as a basis for comparison, an experimental group of nine LDs improved significantly on subtests related to revising and editing. Neither they nor their mainstreamed LD peers showed any improvement in confidence.

CHAPTER I

Background:

Emphasis on process not on product! That statement has become a pedagogical mandate for writing instruction. The rules are so simple...plan, organize, first draft, revise, edit, and publish. Peer review and peer editing are touted as the "real world" way to deal with problem solving. One problem, however, continues to arise out of the revise and edit stages. What are the rules for grammar which should be taught, and when is the best time to teach them? Peer editing will deteriorate if the peer editors do not have a clue as to *how* to fix the breakdown in mechanics.

For the past quarter century, research and replications of research have supported the findings that grammar taught in isolation is at best ineffective (Coop, White, Tapscott, & Lee, 1983; Fraser & Hodson, 1978; Graves, 1985; Hartwell, 1985; Holt, 1982; Isaacson, 1989; Reynolds, Hill, Swassing, & Ward, 1988; Shinkle, 1987)and at worst may "...actually slow students' development as writers because the insistence on 'cosmetic correctness' inhibits them and reduces their willingness to experiment and invent" (Englert, Raphael, Fear, & Anderson, 1988). Students in "low ability" groups or special education pull out programs are particularly affected by this phenomenon. These students often receive massive amounts of practice in marginally useful skills at the expense of real comprehension (Gersten & Dimino, 1993) and are frequently deprived of the opportunity to develop the thinking processes associated with planning and drafting expository discourse (Barenbaum, 1983; Roit & McKenzie, 1985).

The quandary continues. How can a teacher with ever-increasing enrollments meet the independent needs of students at the moment of their need? Could it be that we have come to under-emphasize need with regard to grammar instruction? Have we come to depend on intuitive language learning supplemented by pinpoints of instruction at any given moment of specific need? At what point will our students develop the confidence to *know* when they are editing correctly, or even be able to recognize errors in language

convention when those errors occur? [Anecdotal note: How many *teachers* are completely secure in their thorough knowledge of the syntax of the English language?]

Sex, politics and religion are comparatively inconsequential topics of debate when it comes to disrupting the internal harmony of a language instructor. In order to inspire true dissension and discord, it is necessary to instigate a discussion as to whether or not one should teach grammar, and if so, when and how. Definitive research is somewhat inconclusive in approach and technique, school boards and curriculum directors continue to operate on their own agenda, and opinions will vary even within the language department in the same district.

Those who support "back-to-basics" embrace an approach of specific linear instruction similar to that which was used throughout past generations. Many whole language proponents cite the fact that no clear, empirical evidence exists that grammar instruction improves written language; therefore, it does not need to be taught...at all. For many of them, written language mechanics should be learned by a pedagogical osmosis based on exposure to correct usage. Enlightened instructors are coming to believe that the truth lies somewhere in between.

Increased ethnic awareness brings us to the realization that many children learn and speak an English dialect that is outside what educators describe as mainstream American English . "They don't know what to do to change their 'bad' English, and we don't know what to tell them to do" (Schnaiberg, 1994, p. 18). The current system is not working for these students. Although linguists generally agree that two language systems that are mutually intelligible are not separate languages, when it comes to writing, subtle differences can have a profound effect on reader understanding.

Need:

It may be fallacious to reason that students who experience correct usage in listening, speaking, and reading will automatically transfer that experience to writing. To assume a full language experience by the middle grades may also be erroneous. In an era

when television and *Nintendo* define intellectual language exposure, actual contact with correct language usage could be tentative at best. Research indicates that most students initially write in the same manner in which they speak (Sanborn, 1986). With so many alternative sources of entertainment available, reading for pleasure is no longer a given. Early language development then becomes limited to immediate environmental stimuli or to the vagaries of electronic programming.

In 1982 David T. Hakes offered the following observation:

> ...the optimal conditions for becoming metalinguistically competent involve growing up in a literate environment with adult models who are themselves metalinguistically competent and who foster the growth of that competence in a variety of ways as yet little understood (p. 205).

Purpose

The purpose of this study is to investigate the efficacy of strategic grammar instruction provided simultaneously with process writing. The study will compare learning disabled students who are taught grammar strategically in a resource center with their learning disabled peers taught grammar in isolation in a mainstream setting.

Research Question:

Will learning disabled 7th grade students demonstrate increased confidence and competence in revision and editing skills when taught specific cognitive strategies in English grammar as compared to their peers taught using more traditional grammar and process writing?

Theory:

In effect, this study embraces two separate but related theories. One deals with confidence and the other with competence. The hypothesis for this study includes aspects of both and the nature of their inter-relationship.

Confidence

Confidence in editing and revising can be described as a sense of knowing what needs to be done. Frequently the hallmark of a learning disabled student is a marked lack

of self-efficacy. No less than five unique studies (Englert & Raphael, 1988; Graham & Harris, 1989; Houck & Billingsley, 1989; Newcomer & Barenbaum, 1991; Newcomer, Nodine, & Barenbaum, 1988) reported research findings in which LDs either could not recognize errors or had no means by which to improve what limited text they did produce. Other studies (Alvarez & Adelman, 1986; Graham & Harris, 1989; Graham, Harris, MacArthur, & Schwartz, 1991; Graham, Schwartz, & MacArthur, 1993; Harris, Graham, & Freemen, 1988; Wong, Butler, Ficzere, Kurerls, Corden, & Zelmer, 1994) report that LDs actually *overestimate* their ability and in fact do not perceive errors. LDs generally presented inordinately short text production, poor planning and organization of ideas, and displayed little or no indication of any metacognitive ability to detect inconsistencies in semantics or syntax.

Stevens and Englert (1993) discovered that when surveying students about their rationale for successes or failures, they most often attributed successes to "luck, studying, or easy assignments"; and they attributed failures to " a lack of ability, didn't study, or because material was too hard". When narrowing the inquiry to LD students, however, there was no direct link between effort and success. Increased effort without a strong strategy base for problem solving did not categorically improve the end results. The LDs often perceived themselves as either incapable of ever doing better or satisfied with what was produced regardless of quality.

Ironically, Englert *et al.* (1988) report that writing instruction in special education classrooms has an undue preoccupation with drill, mechanics, and worksheets all of which may not enhance the development of mature writing strategies necessary to sustain the thinking processes associated with planning and drafting expository discourse. The long-term impact is becoming more pronounced. Mastery of the standard conventions of writing is considered to be one of the hallmarks of literacy (Shinkle, 1987). At present the national work force is going through radical shifts in necessary requirements for employment. Unskilled labor may not render enough income for a person, let alone a

family, to live independently. Many corporations are opting for alternatives such as multi-layered, part-time employees to avoid the necessity of having to offer ever increasing benefits' packages. The service sector is the only area growing, but the jobs for which the typical LD adult is qualified are in decline. "Information management skills and technology-related skills will be increasingly essential to working" (White, 1992, p. 452). Employment success will hinge on the employee who can successfully analyze a problem, conceptualize a solution, and articulate that solution to another person. According to Carnevale, Gainer, & Meltzer (1988), the skills which employers want are:

1. The 3 R's
    - Reading
        - *Locating information*
        - *Solving Problems*
    - *Writing*
        - *Analysis*
        - *Conceptualization*
        - *Synthesis*
        - *Distillation of information*
        - *Articulation*
    - Math
        - Problem identification
        - Reasoning
        - Estimation
        - Problem Solving
2. *Organizational effectiveness*/leadership
3. Self-esteem/*Goal setting*-Motivation/Personal and career development
4. *Interpersonal skills*/Negotiation/*Teamwork*
5. *Problem solving/Creative thinking*
6. *Listening and oral communication*
    - Communication style (inflection, body language)
    - Following directions
    - Listening for content
7. Learning to learn
    - *Ability to apply knowledge to new situations*
    - Ability to be retrained

[Note: italics added to indicate areas which are a vital part of writing instruction when taught strategically through process and real world simulations.]

Unless academia addresses these very real concerns, the confidence level of our exceptional students will be so undermined as to render them unemployable in anything but unskilled labor.

Competence

Competence is a matter of actually possessing the skills to accomplish the revising or editing task satisfactorily. The direct link between competence and confidence is so logical as to be easily overlooked. In 1993 Hawkins observed,

> ...at one point I thought that my students were just being "lazy" editors when they turned in a set of papers that were full of errors. I discovered through the One-Minute Paper technique that, in fact, they needed to spend more time on grammar, specifically on fragments and run-on sentences. Their reluctance in marking those errors was due more to their lack of grammatical knowledge than to what I had arrogantly termed laziness (p.310).

When she started teaching mini-lessons on recurring grammar problems before editing sessions, students gained more confidence in spotting errors which they now recognized.

The rationale for specific, strategic writing instruction is not a new phenomenon. In 1978 Graves listed six cogent points in support of it. 1. It contributes to the development of the person as a whole. It is a highly complex act demanding an analysis and synthesis of many levels of thinking (placing it high on Bloom's Taxonomy of Learning). 2. It develops individual initiative since the learner must supply everything...order, topic, information, questions, and answers. 3. It ultimately develops courage, for nowhere is a learner more vulnerable. 4. It can lead to personal breakthroughs in learning. 5. It can contribute to reading improvement. Writing represents the active counterpart of passive reading, or the expressive extension of language to reading as the receptive part. 6. It contributes to reading comprehension since the ability to revise for greater power is one of the higher forms of reading.

Learning disabled students are often motivated by avoidance of failure in their school writing experiences. Rather than seeing writing as a natural means of communication with a given audience, LDs view it as another exercise to be completed in an allotted time (Ellis, 1994).

Specific strategy instruction provides an instructional mechanism to help students gain the confidence in cognitive processes that are essential to effective writing. It will boost traditional methods by providing structure to help the student organize and sequence. It can also develop the self-regulation skills necessary to use the strategies enabling the instructor to "fade" as competence and confidence increase (Graham *et al.*, 1991).

Successful strategy instruction has three components which should be scrupulously observed. First, teach the strategy to mastery. Secondly, inform the students about the use and the significance of a selected strategy so that they can take "ownership" of it. Finally, foster the development of sufficient self-regulatory skills for effective strategy deployment, independent use, and maintenance and generalization of the strategy effects (Graham *et al.*, 1991).

As the teacher "fades", it is important to pay particular attention to how students might employ and possibly modify (either to improve or subvert) writing strategies with use over time. The need for this *caveat* arises out of observations by Applebee (1984) and Bereiter (1985). In today's schools, particularly at the intermediate/middle level, ***question asking*** (study guides, end of chapter exercises, fact-specific reports, etc.) is the dominant mode of writing practice in content area instruction. Learning disabled writers may have learned maladaptive composing strategies that are efficient in responding to questions on worksheets but that are incompatible with the acquisition of more mature writing strategies.

Many children, but particularly LD children, exhibit strategy deficits. "Expert" writers use sophisticated metacognitive tools almost intuitively to generate information,

plan and organize material, then evaluate and revise text. With the LD student, the demands of producing a first draft are often so taxing that he/she doesn't have enough attention left to review and revise (Beal, 1989). As described earlier, the LD student may not even recognize the existence of error. Beal goes on to say that if the child doesn't distinguish clearly between what his text says and what he wants the reader to know - it will be difficult to assess the communicative quality of the written work. This may account for the random appearance of some changes which seems to occur when a student is told to make revisions in written work but he/she cannot tell what needs to be changed. Once given a strategy to recognize that a message is unclear, the child is often able to locate and repair the problem.

It is useful for the teacher to investigate how strategy instruction can augment traditional approaches. It should complement not supplant effective writing approaches. There should not be a need to completely revamp a fundamentally sound program but rather an opportunity to streamline its performance.

Definition of terms:

specific learning disability - as defined in Federal Public Law 94-142, means a disorder in

> one or more of the basic psychological processes involved in understanding or in using language spoken or written, which may manifest itself in an imperfect ability to listen, think, speak, read, write, spell, or to do mathematical calculations. The term includes such conditions as perceptual handicaps, brain injury, minimal brain dysfunction, dyslexia, and developmental aphasia. The term does not include children who have learning problems which are primarily the result of visual, hearing, or motor handicaps, of mental retardation, of emotional disturbance, or of environmental, cultural, or economic disadvantage (I.D.E.A., 1990)0.

learning disabled (LD) - a student displaying characteristics as described above

non-learning disabled (NLD) - a student or students who are nonclassified and are educated entirely in a mainstream setting

regular education student- same as NLD

perceptually impaired (PI)- classification used in the New Jersey Administrative Code, Title 6 Chapter 28, Special Education, meaning a specific learning disability manifested by a severe discrepancy between the pupil's current achievement and intellectual ability in one or more of the following areas:

(1) basic reading skills;
(2) reading comprehension;
(3) oral expression;
(4) listening comprehension;
(5) mathematics computation;
(6) mathematics reasoning; and
(7) written expression.

resource center - as described in New Jersey Administrative Code Title 6, Chapter 28, provides instruction for pupils with an educational disability enrolled on a regular class register with his or her chronological peers but taught a given subject, as specified by his or her Individualized Education Program (IEP)in a program which replaces that provided in the regular class

Limitations:

This study will concern itself with a total of twenty PI students. Nine of these students will be taught in a resource center, and eleven will be taught in the mainstream. Due to the limited number of subjects, the results will lack statistical significance. The results should, however, have educational implications worth discussing.

Competence will be measured using the standardized instrument, *Test of Written Language, Second Revision (TOWL-2);* however, the subjective nature of scoring the

spontaneous writing sample could lend itself to a question of scorer bias. Since all tests will be scored blind (by control number rather than name), this potential for bias should be minimized.

Confidence will be measured by a student self-evaluation questionnaire presented pretest and again at the posttest. Results will be measured along a continuum of response from strongly agree to strongly disagree. Student integrity could be subject to question.

CHAPTER II

With maturity, one can begin to see a cyclical nature to many trends and events. Men's suits go from wide lapels to narrow then back to wide, women's skirt lengths travel up and down the leg by what seems to be pre-determined schedules. Governments extol the virtues of communism only to throw it away for capitalism which in time creeps back to socialism. Liberal and conservative begin to seem like flip sides of the same coin in politics, morality, jargon, social conscience, and even ...education.

Grammar, and the need for its instruction, appear to fall within this tide of ever-changing dogma. One thing, however, does seem to remain comfortably constant. Correct usage and adherence to the conventions of standard English are the barometers by which literacy continues to be measured. Are students being served if correct usage is left solely to what they might learn through exposure to good writing, and rules of proper convention are taught only upon identification of a pattern of error? At what point and in what way can an educator offer meaningful instruction? Current literature offers no definitive conclusion, but it does have some very interesting observations.

Grammar Instruction

In a survey conducted in 1993 (Warner), most English teachers questioned attested to a negative correlation for their students between grammar study and motivation. It was their contention that it alienates students, it is seen as irrelevant and boring, it translates into a distaste for literature and composition, and it creates doubts about overall literary competence. Warner warns that, "...we have a responsibility to teach young people that language is power and that there are times when using standard American English is imperative if one wants to succeed" (p. 79).

At the same time, Andrasick (1993) claims that "mechanical correctness counts because, fairly or not, it is often the basis on which the world outside of school judges a writer's competence" (p. 28). Good writing instruction that allows students to do real writing for real purposes and real audiences (emphasis on *real*) and encourages frequent

publication creates a "powerful climate for students to value correct mechanical convention to avoid confusion in their message" (p. 28). And so the debate goes on, but it is far from a new battle.

C.R. Shinkle (1987) concludes that grade school students are not really ready for the abstraction of grammar study, and that some may never be! While R. Small (1985) states that grammar may well be the nuclear physics of the English Curriculum. Could it be that many students do not retain grammar because they *cannot* as proposed by Warner in 1993?

Traditionally, we teach and reteach grammar from about third grade to college with the apparent hope that sooner or later it will be learned. The fact appears to be that grammar most often is not learned (Vavra, 1987). Warner (1993) observes, "It seems the educational establishment doesn't expect students to 'get it.' Can any of us imagine a math or science curriculum where the *same material* is presented and drilled year after year as is the case in grammar textbooks" (p.77)?

Hartwell (1985) determines that seventy-five years of research tells nothing because the two sides (for and against formal grammar instruction) are unable to agree on how to interpret the results of studies concerned with grammar instruction. All too often the studies tend to be interpreted on one's own prior assumptions in which case the results won't change the assumptions.

Even a definition of what constitutes grammar is nebulous. Shinkle (1987) and Elgin (1982) see it as a system that is used to explain the workings of language. Fries (1969) defines it as the devices that signal structural meanings in a language. While Hartwell (1985) determines that there are in fact five often interrelated grammars:

one - the intuitive rules and patterns in regular (oral) use

two - a linguistic science studying systems of grammar

three - linguistic etiquette (such as a general distaste for "ain't")

four - school grammar, the oversimplified system found in traditional textbooks

five - a stylistic grammar used to teach prose style

Furthermore, he contends that there frequently exists an untidy overlap of systems, especially grammars one and four (intuitive rules in regular use and school grammar). In 1986, Hillocks presented a synthesis of the research on written composition which includes a chapter on grammar. He summarized that there is often no distinction made between *grammar* as a description of how a language works and *correctness* as an adherence to accepted conventions of punctuation and usage.

Hartwell's identification of an intuitive, internal grammar is supported by many (Elgin, 1982; Mills & Hemsley, 1976; Sanborn, 1986) who protest formal grammar instruction. Sanborn insists that, "...five year old children entering school already know English grammar intimately, thoroughly, and unconsciously, to the level that most high school texts purport to teach.... Syntactic maturity in performance comes with development rather than rule learning" (p.74). These and others join the ranks of those adamantly opposed to the traditional teaching of grammar. Does research support their claim?

The bulk of research with regard to grammar concerns its instruction "in isolation" as "a didactic, prescriptive, isolated, skill-drill approach" which may defeat its own intent by consuming valuable class time with little pay-off (Braddock, Lloyd-Jones, & Schoer, 1963; Fraser et al., 1978). Other reports conclude that grammar taught in isolation is ineffective on written language and that the rules and skills need to be taught within the writing process (Coop et al., 1983; Graves, 1985; Isaacson, 1989; Reynolds et al., 1988). Shinkle (1987) determines that grammar should not be as widespread as it is, seen as a cure for writing problems, seen as a substitute for writing instruction, seen as a substitute for communication skills (written or oral), or seen in any other light than instruction in how language works. Holt (1982) supports grammar as only a small part of the language curriculum with such practical skills as reading, writing, and oral communication making

up the bulk. Gann (1984) agrees that students need daily opportunities to write sentences, paragraphs, essays, and stories along with spelling, mechanics and oral usage far more than they need "formal" grammar.

DeBeaugrande (1984) makes an interesting observation that invites consideration. Grammar texts alone should not be used to teach grammar or writing. The teacher needs to understand grammar and become the primary instrument for instruction and application. Grammarians, who write the texts, find concepts easy since they are thoroughly conversant in the vocabulary, but this does not necessarily make the concepts teachable or practical in application.

A study of twenty college students, all prospective English teachers (Neuleib & Brosnahan, 1987), produced some startling results with regard to grammar knowledge. All of the students reported having learned grammar traditionally by use of exercises, and all rated themselves >3 on a scale of 1 to 5 with regard to grammar ability. The results, however, reflected little retention of formal grammar knowledge and an inability to apply grammar to editing problems. Of the twenty four students:

24 of 24 could identify some verb

24 of 24 could identify a prepositional phrase

12 of 24 could identify a transitive verb

7 of 24 could recognize punctuation of ; joining two clauses

7 of 24 recognized the need for an apostrophe in "its" meaning it is

6 of 24 could identify a passive verb

4 of 24 could identify an adjective clause

3 of 24 could name the eight parts of speech

2 of 24 could identify an adverbial clause

0 of 24 could accurately count the number of clauses in a paragraph

0 of 24 could identify an intransitive verb

The researchers seem to ask if professional educators truly understand grammar and the nature of language? If curriculum calls for the teaching of grammar, then teacher preparation is crucial for effectiveness.

> A confused teacher increases student perplexity.... If some teachers want to teach the eight parts of speech in English, for instance, they need to know that the parts of speech are defined neatly, sensibly, and logically by inflectional forms in Latin, but that they are defined inconsistently and illogically by mixing form and function in English. Unless teachers are informed about the imperfections of traditional grammar, students will fail to understand it and thereby to learn and retain it (Neuleib et al., p.31).

The question begs to be asked...so what? Many teachers have come to the conclusion that they should completely omit grammar because it won't help anyway, and articles such as that written be Hartwell (1985) will reinforce their thinking. Why go to the bother to learn all the nuances of language rules and systems? Neuleib and Brosnahan (1987) counter that certain types of grammar instruction, when presented effectively and for clearly defined purposes, are helpful. "When writers learn grammar, as opposed to teachers merely 'covering it', the newly acquired knowledge contributes to writing ability" (p.29). They, as well as Bartholomae (1980), DeBeaugrande (1984), and Shaughnessy (1977), illustrate how grammar instruction can improve writing skills, but teachers need personal grammar competence to use the methods properly. Patterns of language and error analysis require more than just "covering it".

Then in 1992 Isaacson offered a response which may begin to bridge the gap:

> If beginning writers are never given opportunity to do anything but spell or do punctuation worksheets, they will never become competent authors. Similarly, if beginning writers are taught the process without also learning to spell or punctuate, they will be limited in their ability to communicate with others.
>
> Holistic and atomistic are antithetical concepts, but not antithetical endeavors. Learning to play the piano and learning to write can be both holistic and atomistic. Learning a new piano piece began very atomistically, but mastering the piece required attention to the integrity and dynamics of the whole. Learning to write can incorporate the whole process of writing and, at the same time, look at the particulars (p. 175).

In the Hillocks synthesis of writing research (1986) it was noted that many studies of grammar did not maintain even minimal controls for teacher bias, there were frequently no pre- and posttest writing samples, many compositions were not rated for quality, and when they were, there was no provision for rater bias. [Anecdotal comment: These questionable studies did not qualify for inclusion in Hillocks' meta-analysis, yet could the results of some of them be the basis upon which opinions are sometimes formed with regard to decisions concerning advisability and/or methods of grammar instruction?]

A report on Hillocks' findings can be summarized as follows: no studies reviewed found any significant differences between groups teaching traditional grammar and those teaching no grammar at all, nor did any study provide support for teaching grammar as a means of improving composition skills. Gale and Morgan (cited in Hillocks, 1986) did discover some limited gains in syntactic complexity for linguistically based (structural-generative) grammars when compared to traditional grammar but not any significant global differences. Kennedy and Larsen (cited in Hillocks, 1986) discovered that groups studying structural grammar did make improvements in syntactic sensitivity as compared to a large mean loss for those in the traditional group, but only over the short term. After two years there was little or no difference.

Alternate methods for grammar instruction

[Note: Historical studies to form a basis for discussion
are cited from the synthesis of research presented in Hillocks, 1986;
current research and results are cited from actual study reviews]

What then are the alternate means of grammar instruction which could be used in lieu of traditional, formal methods? As early as 1957, Chomsky (cited in Williams, 1993) proposed a transformational-generative grammar which rejected the goals of finite and phrase-structured approaches. Chomsky held that grammar should be viewed as a system of rules for generating grammatical sentences. Although his views have changed over time, his early work is that to which most references are made. Results of a longitudinal study by Elley (cited in Hillocks, 1986) of writing which compares students taught using a traditional method as compared to a transformational grammar describe the following:

after three years, writing showed no significant differences in overall quality between either grammar group (transformational or traditional) *or* from students having studied no grammar at all. "What slight superiority there was in the two grammar groups was dispersed over a wide range of mechanical convention and was not clearly associated with sentence structure" (p. 153).

Mellen (cited in Hillocks, 1986) hypothesized that transformational grammar in combination with a concrete application to sentence combining problems would result in a more "mature" syntax. The reference to "sentence combining" brings up another alternate methodology which has been proposed and studied.

In sentence combining, students are presented with two or more sentences and asked to combine them into a single effective structure. In 1973, O'Hare (cited in Hillocks, 1986) reported on a study in which a seventh grade experimental group displayed an increase in syntactic maturity in their writing by means of a method in which activities were completely disassociated from formal grammar study. Students worked to combine sentences cued by non grammatical terminology.

This single study sparked many additional studies, texts, and dissertations, most with positive results. Sixty percent reported that sentence combining results in significant advances in syntactic maturity, thirty percent reported some improvement at non-significant levels, and only ten percent reported negative findings. Hillocks concludes that "...extensive reviews of the research are unanimous in concluding that sentence combining 'has been proven again and again to be an effective means of fostering growth in syntactic maturity'. Some even suggest it may facilitate cognitive growth as well" (p. 158).

Just when it appears that a generally acceptable alternative has been discovered, contradictory reports begin to crop up. Kerek, Daiker, and Morenberg (cited in Hillocks, 1986) in 1980 found that twenty-eight months after the completion of instruction using sentence completion, on both holistic and analytical ratings of quality, the differences

between control and experimental groups were not statistically significant, although at posttest time the experimental group had scored significantly higher.

Shinkle (1987) reminds that while the process of sentence combining may offer a constructive approach to language manipulation, it is not without its potential problems. "Students may increase the number of errors they make as they practice and try out new combinations. An emphasis on sentence combining may lead students to conclude that longer sentences are always better sentences, resulting in awkward and convoluted constructions" (p. 8).

A third alternate approach to grammar instruction is sentence construction. This method differs from sentence combining in which students have to manipulate already prepared text. In sentence construction, students are asked to observe some phenomenon, generate a basic sentence, then add details about the phenomenon using various syntactic structures, particularly final free modifiers. The theory is that the structures taught demand content, and the content taught demands structure. Early studies had mixed results. Three studies made claims for effectiveness of this method, and three found no significant differences. Most, however, lacked teacher control and had design deficiencies.

In 1979, Faigley (cited in Hillocks, 1986) conducted a study of eight classes of college freshmen. Four were taught using sentence construction, four were taught using a "standard college rhetoric". Initial results were very positive with significant gains favoring the experimental group in words per T-unit*, words per clause, the percent of words in final free modifiers, the percent of T-units having final free modifiers, and in ratings of quality. "However, when pretest and posttest data were added for each student

* T-units were an assessment measure first defined by Hunt in 1970 (cited in Houck et al., 1989) as "...one main clause plus any subordinate clause or non-clausal structure that is attached to or embedded in it" (p. 4). They were frequently used in assessment of syntax in subsequent studies by a variety of researchers. However, many researchers now conclude that the T-unit is not a reliable measure of syntactic maturity. Additionally, Newcomer & Barenbaum (1991) found that "learning disabled students do not produce fewer T-units than non-learning disabled students in compositions that are markedly inferior in other dimensions" (p. 587).

and correlations of syntactic measures and rated quality were run, the results were similar to those in other studies" showing no significant differences (Hillocks, 1986, p. 162).

Another alternative approach is based on a psycho-linguistic model of how the brain processes language. According to Vavra (1993), the brain always looks for the subject/verb combination...actual or implied. For example, if someone were to say to you, "Bread?" out of context, the meaning would be unclear. If, however, you were sitting together at the dinner table and someone said, "Bread?", the brain would infer...pass it..., want some..., or had any.... In written language, both subject and verb are supplied. Students learn that the brain will "chunk" words where they make sense, and an error becomes anything that would confuse the reader's process of "chunking". It is Vavra's contention that if students are taught how sentences work, they would eventually learn to fix their errors themselves.

Vavra further states that traditional grammar instruction focuses too much on error and not enough on the norm. Teachers of grammar under-emphasize the norms of sentence structure and are themselves woefully ignorant of the norms of syntactic development. In fact, exercises (such as those taught in traditional grammar) which exceed the normal development of linguistic ability, may truly be harmful because they violate the natural order of syntactic development.

Much of Vavra's (1993) argument is supported through the "magic number seven plus or minus two" constraint of George Miller (cited in Elgin, 1982). This number is based on the hypothesis that there is a physiological limit on the function of the human memory. Real world business and government use this natural limit on memory as evidenced by the length of phone numbers (555-5555), zip codes (99999-0000), and social security numbers (333-33-3333). Foreign language study optimally introduces phrases in groups not exceeding seven words. Things which an editor would deem "awkward" often exceed the 7 ± 2 "chunk" that the brain can assimilate in short-term memory.

Elgin believes that:

> It is very helpful to students, and will pay off nicely in improved performance, if you explain to them that there is this nine-item limit on language processing. You can tell them...never to use a sentential subject that is more than about seven words long. They can understand that, and they can put it to actual use in the real world. Once the basic phenomenon - which is a part of formal grammar - has been pointed out to them, they are perfectly capable of making use of it, and of generalizing it to other situations. ...Human bodies cannot run seventy-five miles an hour no matter how hard they practice; human brains cannot deal with a dozen pieces of unchunked information in language processing, no matter how hard they practice. This is very different from being told to "get a feel for" what *AWKWARD* means (pp. 18-19).

These violations occur in traditional grammar instruction as well as in the text books students read. Readability formulas result in an unnatural syntax in these textbooks. All of which may subconsciously teach students that reading is a frustrating process of "continuous crashing" particularly for the learning disabled student whose disability manifests itself in language exceptionality. Since reading is one way in which language is modeled, this can have a profound effect on writing competence and confidence. According to Vavra (1993), "...teachers certainly need grammatical support. Without it, we will continue to produce unnatural exercises and inappropriate reading materials" (p. 84).

Vavra (1987) presents a recommendation to his peers that English curricula need to be modeled around the developmental milestones of language rather than by a contrived hierarchy of linguistic acquisition. Students should be encouraged to develop concepts of syntax rather than "dead categories" of grammatical vocabulary. [Note: His recommendations dovetail neatly into a whole language approach, but a true research base was not described nor any empirical data presented.]

In recent years, grammar instruction has become more enmeshed in writing instruction. Several researchers and/or leaders in English language curricula development (Applebee, 1987; Fraser et al., 1978; Meyer, Young, & Flint-Ferguson, 1990; Shinkle, 1987) support the idea that as students develop an ability to use language, a need to know the correct principles may arise. Grammar rules should draw from and feed into reading,

writing, speaking, and listening programs with an inductive, inquiry-oriented method of instruction. Much of this could be concentrated in the proofreading stages of writing. Shinkle (1987) also reminds that standardized assessment does not directly evaluate a knowledge of grammatical terminology, but it does evaluate standard usage.

The National Assessment of Educational Progress suggests that instructional procedures that encourage students to edit their work for grammar, punctuation, and spelling as a last stage in the writing experience would seem to reflect what the best writers do (Applebee, 1987). The National Council of Teachers of English passed a resolution in August, 1986:

> Resolved, that the National Council of Teachers of English affirm the position that the use of isolated grammar and usage exercises not supported by theory and research is a deterrent to the improvement of students' speaking and writing, and that, in order to improve both of these, class time at all levels must be devoted to opportunities for meaningful listening, speaking, reading, and writing; and that NCTE urge the discontinuance of testing practices that encourage the teaching of grammar rather than English language arts instruction (cited in Shinkle, 1987).

The last alternate approach to grammar instruction is one which will be used in this study. It evolved from the doctoral dissertation of Hunter (1969) and was published as a text, *Sentence Sense: The Hunter Writing System*, in 1991. In a preface to the student, Hunter explains, "though this text concerns itself with 'grammar,' it has discarded the inexact definitions in current use. It has replaced them with strategies that are easy, familiar, and fun" (p. vii). The system teaches that the verb is the hub of the English sentence, and should be taught to 100% accuracy. Then students learn to master the structure of the sentence through the use of instructional strategies and mnemonic devices. Students perform the manipulation of word arrangement in order that they might experience grammatical boundaries and functions. In this study, the Hunter system will be used in lessons taught immediately before writing opportunities. The lesson just taught will be reinforced during writing. The Hunter text is a two volume edition of text material

and practice book which are used concurrently. The newest edition of the practice book includes specific writing exercises with didactic models to help direct the student.

Writing Instruction, Components and Strategies to Enhance Competence

Written composition has several basic components. First is the cognitive component or the ability to write a logical, coherent, and sequential product. There is also a linguistic component which includes the use of a serviceable syntax and semantic structure. Finally there is a stylistic component encompassing the use of the accepted conventions such as punctuation and capitalization (Hammill, 1990). Writing is an expressive, communication process in which effective writers establish goals and how they might be attained. It is interesting to note that two of the three components identified can be incorporated into grammar instruction or affected by its absence.

If research seems to indicate that strategic grammar instruction is best implemented from within the writing process, it is necessary to look at modes and models of writing instruction which will enhance this objective. Any review of literature on this topic must include the definitive meta-analysis of Hillocks (1986). In his presentation, he gives attention to the more inclusive matter of instructional modes and the effects of their use on writing achievement (Cotton, 1988). He describes instructional mode as "the role assumed by the classroom teacher, the kinds and order of activities present, and the specificity and clarity of objectives and learning tasks" (Hillocks, 1986, p. 113). The instructional modes he identifies as being found in the classroom are: the presentational, natural process, and environmental modes.

Presentational mode - relatively clear and specific objectives; lecture and teacher led discussion dealing with concepts to be learned and applied; study of models and other materials which explain and illustrate the concept; specific assignments or exercises which involve following previously discussed rules; and feedback from the teacher to the students about their writing. Although this is the model found most frequently in classroom writing instruction, Hillocks found it to be the *least* effective of the three.

Natural process mode - characterized by general objectives; free writing based on student interest; writing aimed at audience of student peers; generally positive feedback from peers; opportunities for revision; high level of student interaction. This model was found to be fifty percent more effective that the presentational mode.

Environmental mode - instruction is clear with specific objectives; the problems are selected to engage students with each other in specific processes important to some particular aspect of writing; activities conducive to a high level of student interaction on specific tasks. "In contrast to the natural process mode, the concrete tasks of the environmental mode make objectives operationally clear by engaging students in their pursuit through structured tasks" (p. 122). The environmental mode was over four times more effective than the presentational mode and three times more effective than the natural process mode.

Specific strategy instruction is a much researched topic in both general and special education. Many applications are familiar and in use. Direct Instruction (DI), Cognitive Behavior Modification (CBM), Strategies Intervention Model, Direct Explanation, Informed Strategies for Learning, and Reciprocal Teaching are six which are well described in a study done by Palincsar, David, Winn and Stevens in 1991. These are methods employed across disciplines and have been received with varying degrees of success in educational practice. For the purposes of this research, focus will be on the work of other groups developing cognitive strategy models more specifically designed to enhance competence in writing skills.

Three groups are concurrently doing extensive work in writing strategies, and their methodology has many similarities. Since this research is so current, there is little yet in practice or readily available to the average instructor. The work of Englert et al. and Graham et al. (various studies and reports to be cited) is designed primarily for writing instruction. The work of Ellis (1994) is more general in producing a paradigm for Integrated Strategy Instruction (ISI), but the specific work cited here is gleaned from a

more narrow targeted audience of the writing population among learning disabled students.

Strategy instruction provides an instructional mechanism to help students gain confidence in cognitive processes which are essential to effective writing. Additionally, this mode of instruction should complement and boost traditional methods since it can be embedded within the process of writing. Explicit strategy instruction will provide the structure to help the student organize and sequence. It can also help develop self-regulation skills necessary to use the strategy, allowing the instructor to "fade" (Graham et al., 1991).

In order to design writing instruction, many turn to the characteristics and activities of skilled writers for a model. Writing as a recursive, nonlinear process seems to be a trait indicative of the good writer. They are thinking ahead, thinking during, and thinking back in a start, stop, start again process all of which are frequently ongoing (Ellis, 1994). Beal (1989) believes that it is not yet clear if the student will benefit most from instruction that encourages them to continue to work in a linear manner (organization, text production, revision) or to learn to coordinate multiple strategies and write in a more interactive and recursive manner as that used by expert writers.

Ellis (1994) sees the cognitive writing process as thinking on paper. The student must impose order on information according to logic and convention. Englert, Raphael, Anderson, Anthony, & Stevens (1991) have copyrighted the Cognitive Strategy Instruction for Writing (CSIW). They state that by using CSIW, the writing process need not be broken down into a sequential set of strategies that are learned and practiced in isolation (unlike traditional "process writing" which teaches plan, organize, first draft, revise, edit, final draft as unique exercises). A case in point being, with scaffolding, teacher dialogue, and procedural facilitation, the process can be constant while adjusting the nature of student participation through graduated assistance.

The Cognitive Strategy Instruction in Writing (CSIW) embraces a nonlinear approach in several overlapping subprocesses: planning, drafting, and editing. During planning students apply previously learned strategies to decide on a purpose or goal. They discover and collect ideas then manipulate and group these ideas. While drafting they may look back to previous drafts or internal plans, blend ideas, and/or insert signals that convey relationships among the planned ideas. Editing is seen as an ongoing way to monitor the success of the draft in meeting the goals of the plan and an opportunity to modify the draft to reflect not only these goals but the needs of the audience (Englert et al., 1988).

Reports on research conducted by the CSIW developers (Anderson, Raphael, Englert, & Stevens, 1992; Englert, 1990; Englert & Mariage, 1991; Englert, Raphael, Anderson, Anthony, & Stevens, 1991; Englert, Raphael, Fear, & Anderson, 1988; Englert & Raphael, 1988; Stevens & Englert, 1993) are all positive in their claims that this is one method for writing instruction which has the potential for success. They do admit that research alone will not contribute to changes in classroom practice and student learning without concurrent attention to teacher beliefs, interpretations of their practice, and their learning. It may be that teachers actually need to alter their views of instructional goals with regard to their role, the students' role, tasks assigned, and the role of the social environment (Anderson et al., 1992).

This group, seeing their position as that of social constructivists, believes that the "...development of literacy in all of its forms occurs when there is a social and verbal interaction between more and less knowledgeable members of a culture around authentic tasks" (p. 8). The CSIW is designed to help teachers teach expository writing as a cognitive and social process guided by strategic thinking to serve the purposes important to the author.

While Englert et al., were developing CSIW at Michigan State University, another group was conducting similar studies at the University of Maryland. Although lacking the

copyright title of CSIW, their work encompassed many of the same objectives, particularly with regard to the learning disabled population. In 1988, Graham & Harris proposed ten specific recommendations for teaching writing to exceptional students. Their subsequent research and related findings (Graham & Harris, 1989a; Graham & Harris, 1989b; Graham, Harris, MacArthur, Schwartz, 1991; Graham, Schwartz, & MacArthur, 1993; Harris, Graham & Freeman, 1988; MacArthur, Graham, & Schwartz, 1991) reinforced what they had proposed in 1988.

1. Allocate time for writing instruction - at least four times per week with the premise being that writing instruction requires opportunity.

2. Expose students to a broad range of writing tasks with regard to immediate and future needs. Optimally this will encourage an interest in writing; develop the cognitive processes necessary for good writing; promote the acquisition of skills needed for overall school assignments; and enable the students to use writing to meet varied needs such as social, recreational, and occupational.

3. Create a social climate conducive to the development of writing. A sense of community will encourage collaboration and higher level problem sharing and problem solving.

4. Integrate writing with other academic subjects since writing is the primary means by which knowledge is demonstrated and a vital tool for exploring thought and recording ideas.

5. Assist students in developing the processes central to effective writing. Self-instructional strategy procedures and task specific metacognitive strategies represent the hallmark of the Graham & Harris (et al.) premises. These procedures are applicable at all stages of writing from planning through, and including, revision and editing.

6. Automatize skills for getting language onto paper. Since mechanical skills often present a stumbling block, particularly for the exceptional student, teach strategies that encourage automaticity or make the recognition of error readily apparent. Sentence combining, sentence construction, paragraph construction, etc. are all skills which have the potential

for automaticity. [Note: In the study being conducted by the author of this thesis, many of these skills are taught using specific mnemonic devices and metacognitive self-questioning techniques as developed by Hunter, 1993.]

7. Help students develop explicit knowledge about the characteristics of good writing. Exposure to various genres and models of good writing in various narrative or expository forms may not be sufficient for the exceptional child to generalize to his writing. It may be necessary to apply direct instruction techniques of model, guided practice, independent practice, and teacher fade, in order to establish variety in student composition style.

8. Help students develop the skills and abilities to carry out more sophisticated composing processes. By use of support, it is possible to encourage the exceptional student to stretch his ability. Examples of support mechanisms are: conferencing (both teacher/student and student/student); procedural facilitation (Hillocks, 1986) which provides external support aimed at easing the executive burden of the writing task; and specific strategy instruction developed in advance for content planning, revision options, and editing devices.

9. Assist students in the development of goals for improving their written product. They need to not only develop but also actualize specific and realistic goals. One recommended procedure is student evaluation of their own and/or other's writing according to specific criteria. If directed to focus on only one aspect at a time, the sophistication of the total product need not hamper or intimidate the emerging writer.

10. Avoid instructional practices that do not improve students' writing performance. Again the behemoth of grammar taught "in isolation" rears its ugly head. Graham and Harris reinforce the fact that research and replicated studies (Hillocks, 1986) do not support the efficacy of this technique regardless of educational assumption and practice over decades. Additionally, an overemphasis of student error (the "red pen" syndrome) tends to make students more aware of their limitations than their strengths. Focusing on a few elements at a time has proven to be more successful.

More than twenty years ago Slotnick & Rogers (1973, cited in Hillocks, 1986) determined that there was a correlation between length and quality of student composition. The suggestion evolved that a gain in quality may be best achieved through an instructional focus on the development of ideas rather than mechanical correctness. Students freed of the burden of subskills are encouraged to expound on their ideas. Subskills can be addressed at a later time after ideas are fully developed.

In 1971, Cohen (cited in Roit & McKenzie, 1985) described a phenomenon which he called *dyspedagogia*, or a curriculum deficiency, which was a critical factor in a failure to acquire basic skills. Roit & McKenzie (1985) used this to explain a curriculum disability in which excessive drills and activities, which at best are indirectly related to writing process, contribute to student failure to learn. Within the disciplines needed for writing, task analysis, in which the learner is taught to progress from simple to more complex activities may actually create an artificial structuring in a writing task with concept development at the *end* rather than at the *beginning* of the process. The implied necessity for mastery at the lower end - handwriting, and spelling - stifles the communication of meaningful thought.

Revising and Editing Skills, Improvement to Build Confidence

> ...the competence necessary for students to make significant revisions in content or to structure text in a more coherent manner are not improved without specific, highly individualized instruction in each relevant task and instruction in self-monitoring strategies. Practice and the opportunity to write over time may increase mechanical skills and certain aspects of fluency, but they are not sufficient to enable students with learning disabilities to internalize the strategies necessary to overcome their comprehensive problems in the planning, drafting, and revision of cogent text (Newcomer & Barenbaum, 1991, p. 590). ...It is essential that students be committed to the idea of improving writing and be capable of taking control of the writing process. Otherwise, regardless of the instructional program, revisions are superficial rather than substantive. Also, planning strategies that appear to be learned are either forgotten or are not generalized to other circumstances" (p. 591).

Repeatedly, Graham & Harris (1991) discovered that learning disabled students used revising to correct mechanical errors, substitute individual words, and make the final product neater rather than make any substantive changes. MacArthur et al., (1991)

actually quantified revision behavior of learning disabled students with the following results: seventy-six percent of the revisions included mechanical changes (sixty percent spelling); twenty-eight percent included substantive or content revisions; and zero percent of revisions included changes in organization, deletion, sentence structure, or alteration to either the beginning or ending of the work. "When written products were compared across drafts, the only significant change was improved handwriting quality from the first to the second draft. No differences were found between drafts in overall quality or in proportions of mechanical errors" (p. 71).

Current models of the cognitive processes inherent in revision include three major components. First is the identification of the problem or determination of what discrepancy exists between the actual text and the ideal text (error analysis and/or patterns of error are two methods to be discussed shortly). Next step is a diagnosis of the problem, a decision about what to do, and the selection of a strategy for remediation. The final step is making the actual change (Graham et al., 1991).

Learning disabled students appear to have a general insensitivity to the purpose of expository text and the means by which to generate and monitor expository ideas. An analysis of early termination and mechanical adaptive strategies (Thomas, Englert, & Gregg, 1987) suggests that learning disabled students have not developed adaptive composing strategies. They tend to approach the task as strictly a job of question answering (a not uncommon maladaptive strategy as evidenced by the works of Applebee, 1984; Bereiter, 1985). They tend to either present all their knowledge at once or they answer in short, choppy sentences/phrases that answer a question but do not provide well-formed exposition. An emphasis on the purpose of writing could possibly reduce the quantity of redundant and irrelevant written statements, and increase awareness that the purpose of writing is communication rather than test taking.

Shaughnessy (1977) recommends a strategy of individual error analysis for revision. The student works only on the errors in his own work and not on any rules

external to his writing. This approach excludes "formal" grammar yet includes functional grammar at every step. Error analysis can actually be a good indicator of linguistic growth (Neuleib & Brosnahan 1987). The ability to recognize the error helps the student develop his own editing strategies, but it does require a sophisticated grammatical knowledge on the part of the teacher.

Patterns of error evolve naturally from the process of error analysis. Students tend to be creatures of habit and repeat the same errors. They can be taught to edit for "their own unconventional patterns"(Andrasick, 1993). The strategy implication is that they have to be taught to notice and define the patterns which need change. Mark Twain once said, "Habit is habit and not to be flung out the window by any man, but coaxed down the stairs, one step at a time" (cited in Andrasick). Identification of error is necessary for learning. If students seek out patterns of change, only the unchanged errors are a problem. New mistakes mark a venture into new territory, experimenting with new structure, and increasing sophisticated ideas (Andrasick).

So why is it so difficult to get students to change text. Bereiter and Scardamalia (cited in Hillocks, 1986) reason that "...an existing sentence is so salient a stimulus that it inhibits thinking of a new way to say the same thing, much as listening to a Beethoven symphony inhibits one's whistling a Sousa march" (p. 164). Student writers are far too content to work with a vague or approximate representation of their text. On review they may unconsciously "correct" in their minds without actually changing the writing. They know what they are thinking, so they believe the reader will infer their meaning (Flower, Hayes, Carey, Schriver, & Stratman, 1986). Is detection enough? There may be an initial sense of dissonance between intention and text; however, the solution may not be readily apparent. West (1983) sees deficiencies as usually due to a lack of instruction more than "carelessness, laziness, lack of motivation, dishonesty, or even mediocre verbal skills" (p. 286).

What then can be done? Madraso (1993) proposes strategies which can be specifically taught [Note: Unfortunately, there is no corroborating research cited to support these strategies, as is frequently the case in variations between research and practice.] During the proofreading stage, it needs to be remembered that reading is for comprehension. We tend to see what we expect to see, and the brain corrects for omissions and oversights. Proofreading must be more specifically task oriented.

The following examples of possible strategies are identified with recommendations for application. If the student reads the passage orally, there is less likelihood of word omission. Then have the student focus on stylistic problems which seem to be repeated, either through the student's own identification or that of an editor. Specific patterns which can be addressed one at a time include: sentence structure (are the words really a sentence and do they make sense); sentence fragments (read sentence-by-sentence backwards from the end of the piece to the beginning, taking each individual sentence momentarily out of context); comma splices (scan and stop at each comma to determine why it is needed or what purpose it serves); run-on sentences (where could one add a conjunction, or should it be two or more sentences?); spelling/typos (read the piece backwards word-by-word, create a spelling log of recurrent errors); homophones (skim looking specifically for these words with focus on the most common: there/their/they're; to/too/two; its/it's; whose/who's); mechanics/grammar (skim with only this in mind, don't try to look for too much at a time).

Peer review is an emerging part of the cooperative learning process throughout many curricular disciplines. In writing it can be effective *with careful guidance*. The teacher needs to model evaluations and be aware of social implications when a student makes himself vulnerable to have his work read by his peers before a final draft ((Beal, 1989). Andrasick (1993) recommends that peer review be for response or editing but that it is best to not try to combine the functions. Response conferencing is done early in the

process with little or no attention to mechanics. Trying to do both at once tends to create a premature shift in focus from idea development to mechanical correction.

Use of this strategy with the learning disabled population may present some problems. Since their initial text may be terse, confusing, or incomplete, reading and drawing of inference would be difficult for anyone let alone another learning disabled peer. A need for social perceptiveness and tact are attributes often lacking in this population (Newcomer et al., 1988). Specific instruction would have to be a mandate for the special education teacher hoping to develop this strategy.

Additional Instructional Needs Unique to the Learning Disabled Population

Learning disabled students possess some deficits that are unique to their individual exceptionalities. There are, however, some conclusions that can be drawn about them as a group with regard to writing difficulties. Newcomer and Barenbaum (1991) in a synthesis of research observed the following generalities:

- learning disabled students use immature and ineffective planning strategies
- they lack organizational skills
- they tend to pour out what they know without regard to relevance in context
- they do not think in terms of using a text structure in planning
- their thinking processes are highly interrelated with their production and comprehension
- they tend to write about what they think about
- their thoughts about writing are described as being qualitatively inferior focusing on structural factors or irrelevant details
- they are unable to develop or maintain a sense of the whole composition or clear notion of purpose thus they have little idea of what to include or omit or of when their work is complete
- they do, however, seem to improve with strategic training perhaps due to practice which increases the opportunity to write providing an increased motivation

If learning disabled (LD) students are to prosper from instruction brought through an enhanced writing experience, there are some recommendations proposed by Roit & McKenzie (1985) which deserve consideration. First, teachers need to be sensitive to the misconceptions brought to the act of writing by many LD students. Graham et al. (1991) observed that for LD students simply having to attend to the lower level skills of getting language onto paper interfered with other writing processes such as planning and content generation. LD students may need help realizing that writing is an active, exploratory process which requires thought and organization prior to the motoric act.

Second, writing must be shown to be applicable in a variety of situations and contexts to foster generalization in content classes (a factor also endorsed by Newcomer & Barenbaum, 1991). Third, a distinct focus on thinking (metacognition) as a critical aspect of the writing process must be a component of diagnostic-prescriptive processes.

A fourth recommendation of Roit & McKenzie (1985) is the use of "orienting activities" similar to those used in reading instruction; e.g. curiosity, prediction, and arousal of interest. These procedures should serve as stimulation of the thought processes and offer a foundation for approaching the writing task. In 1989, Graham and Harris used self-efficacy techniques in a three tiered intervention program of writing for 33 students, 22 LD and 11 random non-learning disabled (NLD). The levels were: introduction of the strategies, instruction in the knowledge and use of the strategies, and self-regulation of the strategic performance. The results were a significant improvement in the overall composition skills of the LDs sometimes bringing their writing up to the level of the NLDs. In a separate but similar study, Graham & Harris (1989) taught three students specific strategies to facilitate generalization in the framing and planning of text with self-directed prompts. The results of this self-instructional strategy training were positive in the specific training period as well as replicable over several weeks.

Stevens & Englert (1993) warn that cognitive strategy instruction alone may not be enough. "Students with learning disabilities must realize the usefulness of writing

strategies and believe that using such strategies helps them succeed. Otherwise, they may not use the strategies when confronted with problem-solving situations on their own" (p. 35).

The last two items recommended by Roit & McKenzie (1985) are related to teacher preparation.

Fifth, University teachers in teacher training programs must expose trainees to both the comprehensiveness of the written language process and the need to incorporate diagnostic procedures for early identification. And finally number six, while the above recommendations will provide an immediate means toward improving written language intervention, research is still needed to delineate the critical skills used by proficient writers ***and to translate these findings into sound instructional practices*** (emphasis added).

This has been the area which this author has found most deficient. Many excellent studies in strategic writing instruction exist and seem very promising. They present specific means and models for easy and immediate implementation in the classroom. When, however, one goes to curricular catalogues, published instructional programs in practice for the non-investigative instructor are not readily available. To assume that teachers will be current in the most recent research is cavalier at best, and to assume that even the most enlightened teachers have the skills or time to create curricular aids may not be fair or reasonable.

Summary

The need for grammar instruction continues to be a controversial topic as evidenced by research extending over decades. In 1986 there did seem to be a decision

(based in no small part on the meta-analysis of writing instruction presented by Hillocks) which came down from the National Council of Teachers of English. Formal grammar taught in isolation was recognized as being a "deterrent to the improvement of students' speaking and writing".

Alternative methods for instruction began to be investigated as a replacement for isolated grammar and usage exercises. Studies centered around transformational grammar (a system of rules rather than disjointed speech parts); sentence combining (joining two or more short sentences into one which would be more syntactically mature); sentence construction (students would develop an observation of a given phenomenon then add details, particularly free modifiers); and psycho-linguistic models (how the brain actually processes language). These varying methods all experienced some success, but no single one evolved as the definitive instructional paradigm.

In recent years, grammar instruction has become more enmeshed in the writing process. The theory being that a need to know principles of language should evolve out of a desire to improve communication through writing. Grammar would become a natural part of the editing process, and grammar instruction should be based on the correction of individual patterns of error. Strategic, cognitive instruction specifically includes self-questioning during the editing process to assist in identifying errors in mechanics and/or sentence structure.

It seems that learning disabled students have been particularly affected by inappropriate grammar instruction. Using a diagnostic-prescriptive means of instruction, which is so often a successful model for this population, a task analysis would indicate specific attention to rules of grammar rather than to the written product as a whole. As a

result, learning disabled students frequently spend the bulk of their time in workbooks rather than meaningful written communication. Other generalities about learning disabled students affecting their writing are: immature and ineffective planning strategies, lack of organizational skills, poor abstracting abilities, and an inability to develop or maintain a sense of a whole composition or a clear notion of purpose. They do, however, seem to improve with strategic training.

Three separate but similar research teams (Englert et al.; Graham et al.; and Ellis) have proposed and tested a strategic approach to writing. They recommend varying amounts of grammar instruction and often depend heavily on self-editing and/or peer editing. Teacher editing is recommended as more of an advisory function and a last step before publication. Since this research is relatively current, there is little published instructional material immediately available.

This study recognizes the efficacy of strategic writing instruction but seeks to include more specific tools and devices which a student could readily use during the editing process. The method to be used is a combination of *The Hunter Writing System* (1991) and an amalgam of strategic writing recommendations based on current research.

CHAPTER III

Sample:

There are twenty subjects in this study. One comparison group is comprised of thirteen seventh grade students from five regular education language arts classes, all of which are classified for purposes of special education but receive their language instruction in the mainstream. The second group is made up of nine seventh grade students from one pull-out resource center language arts program. All subjects are from a single suburban/rural secondary school district. The eighteen male and four female students (mean age = 13 years, 2 months; range 12 years, 4 months to 14 years, 2 months) come from predominantly middle to lower middle class homes. The sample is primarily nonhispanic Caucasian with one African-American male.

Mainstreamed and pull-out LD students have been identified as perceptually impaired (PI) by the sending districts based on criteria established in the New Jersey Administrative Code, Title 6, Chapter 28. IQ scores gathered from school records ranged from 82 to 107, with a mean of 89.8. IQ scores were determined by the *Wechsler Intelligence Scale for Children* (Revised edition for fourteen students (*WISC-R*) and Third Revision (*WISC-III*) for the other eight students).

Operational Measures:

For purposes of comparison, three separate measures used. *Competence* in conventional English was first measured analytically by the use of the *Test of Written Language-2 (TOWL-2)* (Hammill & Larsen, 1988). Form A was administered as a pretest in the fall and Form B as a posttest in the spring. All subjects were assessed using the spontaneous writing sample which is a fifteen minute timed evaluation of writing based on

a given picture. Standardized scores based on the spontaneous writing sample were available for thematic maturity, contextual vocabulary, syntactic maturity, contextual spelling, and contextual style. In addition to these subtest scores, there was also a composite standardized spontaneous writing quotient (SWQ).

The second measure of *competence* was holistic. Holistic scores were determined for all students based on the New Jersey Registered Holistic Scoring Method (RHSM) (Bloom, 1990) adopted by the New Jersey Department of Education for use on the Early Warning Test - EWT (administered to all eighth grade students in the spring of the year) and the High School Proficiency Test - HSPT (administered to all 11th grade students in the fall of the year).

The RHSM is a rubric scored on a continuum of 1 to 6 with 1 indicating an inadequate command and 6 indicating superior command of conventional English. There are four criteria for measurement: content/organization (opening and closing, focus, logical progression, transitions, appropriate details); usage (tense, subject-verb agreement, word choice, modifiers); sentence construction (variety, correctness); and mechanics (spelling, capitalization, punctuation).

The third measure was one of writing *confidence*, all subjects completed a self-evaluative questionnaire (see Appendix A) designed to evaluate their attitudes about writing in general and revision and editing in particular. The questionnaire was based on a blend of those designed by Wong et al. (1994), and Ellis (1994). There were a total of twenty-six questions. The first part of the questionnaire had ten open-ended questions encouraging the students to think about their writing. These were followed by sixteen

questions offering a continuum of responses from 1 (strongly disagree) to 5 (strongly agree).

Reliability of the standardized instrument, *TOWL-2*, was determined by the editors of the test. Their statistical coefficients are as follows (all coefficients reflect a summary based on an average of Forms A & B):

Subtest	Interscorer Reliabilities	Internal Consistency	Test-Retest Stability	Summary Average (A&B)
Thematic Maturity	93	78	90	88
Contextual Vocabulary	98	79	82	91
Syntactic Maturity	97	95	77	93
Contextual Spelling	97	94	59	91
Contextual Style	95	75	99	88
Spontaneous Writing Quotient			84	94

Validity of the *TOWL-2* was measured using three types--content validity, criterion-related validity, and construct validity. Although the test authors seem sufficiently satisfied with coefficients established by their studies, two reviewers of the *TOWL-2* (Benton, 1992; Ryan, 1992) are less impressed. Benton questions the fact that although there does seem to be adequate content validity, the test does not measure all aspects of writing. Things neglected, in his opinion, are: revising, reorganization of sentences to improve local coherence, meaningful goal setting, any opportunity for organization (owing to the 15 minute time limit), and audience awareness.

Ryan (1992) actually questions the relevance and appropriateness of information offered about reliability and validity. He has three concerns. First is the highly heterogeneous make-up of the sample. Since interscorer reliability was based on samples from grades 3, 7, and 10, it is easier to agree with such a wide range. The second problem is that the groups to which the reliability and validity information applies is not clear.

Would information developed on a heterogeneous group be applicable to the very narrow-ranged, homogeneous age clusters as those used to actually calculate the norms? And finally, he is concerned that "the construct validity of the *TOWL-2* is not supported by the evidence presented" (p.982). With these caveats in mind, he recommends the *TOWL-2* as only being useful in some situations as a broad, general screening device. Benton (1992), however, commends the authors on their efforts and recommends the test as a valid and reliable measure of writing ability.

For the purposes of this study, it was determined that limitations of the *TOWL-2* were outweighed by the availability of standardized information which could be used as a criterion-referenced basis of comparison for a relatively small group.

The subjective nature of the scoring on all three measures, analytic, holistic, and self-evaluative, was hopefully minimized by the following things: the use of control numbers in lieu of names, use of a single scorer for all measures, and tests scored within a close time frame. The much debated existence of a Hawthorne Effect (behavior during the course of an experiment that can be altered by a subject's awareness of participating in the experiment) (Jones, 1992), should have been reduced by the fact that students tested were not aware that they were part of a study since *all* classified students were tested at the same time as well as a significant group (104) of nonclassified seventh graders.

The second measure of competence, New Jersey's Registered Holistic Scoring Method (RHSM), was far less statistical in nature with regard to reliability and validity. Isaacson (1988) reminds us that since holistic evaluation is a guided scoring procedure based on subjective rater judgment of several composition factors, it has two recurring problems. First, the ratings can be unreliable since they are dependent on the proficiency

and consistency of the rater. "Second, reliability may depend on characteristics that are easy to pick out, but are superficial and irrelevant to true writing ability" (p. 529).

In the Registered Holistic Scoring Method Scoring Guide for Teachers (1991) offered to teacher-trainees within the state of New Jersey, the following is a direct quote:

> Content/organization are the key features of New Jersey's Registered Holistic Scoring Method (RHSM). The application of the RHSM score scale ensures consistency and reliability in scoring varied student responses regardless of purpose or mode since purpose and mode in everyday life overlap (p. 24).

Although this comment, in and of itself, would not be sufficient to warrant acceptability of reliability and validity, global use of the RHSM within the state does lend credibility to writing samples among New Jersey students.

The measure of competence, a self-evaluative questionnaire, has no statistical basis for reliability or validity. It is hoped that results would be expected to show some identifiable changes in student attitude between the pretest setting, pre-intervention, and the posttest setting.

Design:

All students are administered Form A of the *TOWL-2* and the self-evaluative questionnaire within the first week of school in September. In order to minimize any deleterious social effects on the classified students in mainstream classes, *all* students in these five classes were tested (total of 126 tested). The students in the resource center setting took the entire *TOWL-2*, all ten contrived and spontaneous subtests, while the mainstreamed students did only the spontaneous writing sample. For use in this comparative study, only the spontaneous writing sample was evaluated. Additional information obtained from the contrived writing subtests was filed and used for later

instructional purposes only. All students then filled out the self-evaluative questionnaire in class. There was a 100% return.

Tests were scored by one person. Raw scores and biographical data for the *TOWL-2* were entered into the *Pro-Score System* (Hresko & Schlieve, 1988) for computer scoring. The results were transferred to a spreadsheet which could be analyzed statistically. Continuum results of the self-evaluative questionnaire were entered into a separate spreadsheet for purposes of comparison between pretest and posttest opinions.

Instructional interventions between pretest and posttest form the basis for experimental differentiation. Students in the mainstream learned grammar in a traditional manner taught in isolated skill exercises. Writing was taught as a separate skill from within a process approach (pre-writing, organizing, first draft, revising, editing, final draft).

Students in the experimental group were taught grammar using specific cognitive strategies. They were also taught to identify problem areas within their own writing. They learned mnemonic devices to identify different parts of speech and were taught the inter-relationships of all parts of a well-constructed sentence. *The Hunter Writing System* (Hunter, 1991) formed the basis of all grammar instruction.

Writing was an activity designated for no less than two days per week with an ever increasing emphasis on successful revision and editing skills prior to publication. Most of the writing strategies used were those based on the work of Englert, et al., (1991) and Atwell (1987). Specific application of the grammar strategies were reinforced during the revision and editing stages. As students perfected a skill, they were encouraged to record what they now understood in an ever-growing compendium of things they now *knew*.

Testable Hypotheses:

By comparing the results of three different evaluations, it will be possible to demonstrate an increased competence and confidence in revision and editing skills among seventh grade students taught in the resource center. These results will be compared to those from similar testing of their seventh grade, classified peers being taught in the mainstream. This increase will be the result of specific cognitive strategies in English grammar and process writing.

Analysis:

The *Test of Written Language-2*, spontaneous writing sample, measures six distinct areas which provide a basis for comparison (*TOWL-2* Manual, p. 47)

Thematic maturity measures the ability to write in a logical, organized fashion, to generate a specified theme, to develop a character's personality, and to incorporate other compositional skills (criterion, thirty pre-established clues).

Contextual vocabulary measures the ability to use mature words that represent a variety of parts of speech (criterion, words of seven or more letters).

Syntactic maturity measures the ability to use complex sentences comprised of introductory and concluding clauses, embedded phrases, adjective sequences, etc. (criterion, numerical deletion of words or phrases used incorrectly from total words produced).

Contextual spelling measures the ability to spell words properly when they appear in a self-generated composition (criterion, numerical deletion of misspelled words from total words produced).

Contextual style measures the ability to apply the rules governing punctuation of sentences and capitalization of words when they appear in a written composition (criterion, identification of 34 pre-determined skills).

Spontaneous writing quotient is a composite score which estimates written language ability when it is measured by analyzing a free, spontaneously produced essay. The subtests that comprise this composite show how well the student can incorporate the elements of good writing into a meaningful composition. Students who do well on this composite show their mastery of writing as a communication medium (p. 46).

Scores are measured and compared pretest (Form A) and posttest (Form B) for an increase or decrease in skill/composite level. All scores are reported as statistical Standard Scores with a mean of 100 and a standard deviation of ±15. A statistical mean would be the basis for group comparison. Due to the relatively small size of the two groups ($n<15$), additional statistical analysis would not be significant.

The second instrument of measurement is the Registered Holistic Scoring Method (RHSM). Although recorded as a single digit from 1 to 6, it represents specific criteria in content and organization, usage, sentence construction, and mechanics. The basis of comparison would again be the statistical mean between the two groups.

The final instrument of measure is the most subjective and least applicable to statistical analysis. The self-evaluative questionnaire, given pretest and posttest, measures attitude and opinion about writing with an emphasis on revising and editing. Since sixteen questions are asked using a continuum response of 1 (strongly disagree) to 5 (strongly agree), a statistical mean would indicate changes in group attitude. Analysis of each question would give a clearer picture of which specific attitudes changed. Question 11, "I

think that editing and revising writing assignments are important jobs," is additionally broken into ten subdivisions. Questions 21, 22, and 24 also deal specifically with revising and editing (see Appendix A).

The first ten questions require a short answer. Comparable responses are grouped together in the pretest sample and compared to the responses in the posttest sample. Specific comments relevant to this study are quoted verbatim.

Summary:

This is a comparative study of twenty seventh grade, classified students; eleven receiving language arts instruction in the mainstream, and nine receiving language arts instruction in the resource center. The groups are demographically homogeneous with the exception of the location of language instruction.

The testable hypothesis is that the resource center students will be able to demonstrate an improvement in their revising and editing skills when compared to their mainstreamed peers. This improvement will be the result of specific cognitive strategy instruction in grammar skills, using the *Hunter Writing System*, and reinforcement of this instruction during writing.

Students will be assessed pretest in September, 1994 and posttest in March, 1995.

Skills will be measured using three separate instruments. Standardized scores in spontaneous writing are derived from the *Test of Written Language-2*. Standardized scores are compared using a statistical mean Standard Score of 100 with a Standard Deviation ± 15.

Holistic evaluation will be accomplished using a rubric developed for the New Jersey Registered Holistic Scoring Method. Scores are reported with a single digit from 1

to 6. Comparison will be accomplished by use of a statistical mean comparing the two groups.

The third measure will be derived from a self-evaluative questionnaire (see Appendix A) administered pretest and posttest. Ten short answer questions will be grouped by commonality of response and compared to answers in the posttest between the two groups. Sixteen opinion questions are asked with a continuum of response from 1 (strongly disagree) to 5 (strongly agree). The statistical mean of these responses is compared between the two groups pretest and posttest.

CHAPTER IV

Results of measures of competence:

A comparison of the results between a pretest administered in September, 1994 and a posttest administered in March, 1995 was used to determine the validity of the original hypothesis. This hypothesis stated that learning disabled 7th grade students will demonstrate increased confidence and competence in revision and editing skills when taught specific cognitive strategies in English grammar as compared to their peers taught using more traditional grammar and process writing.

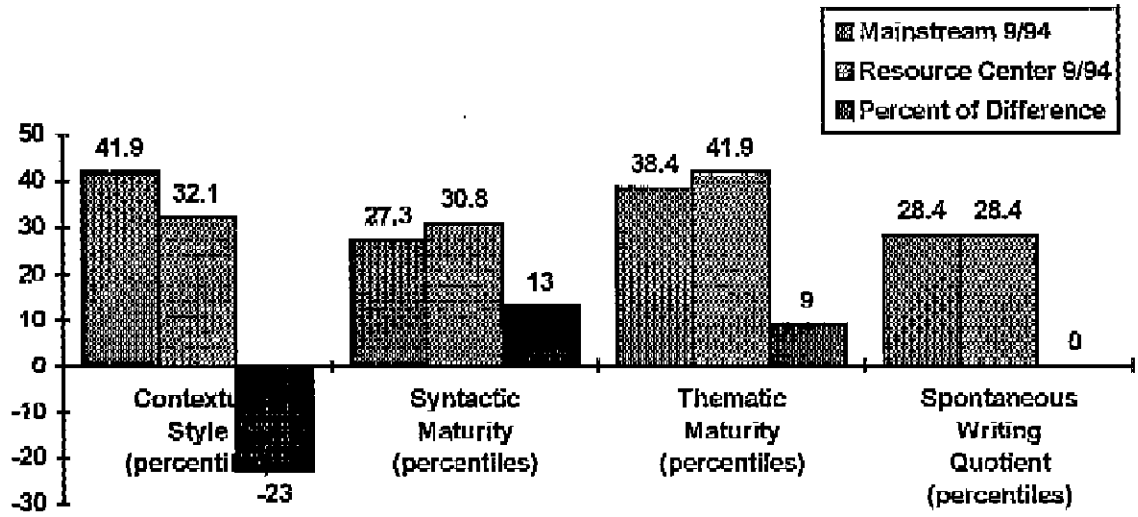
Competence was measured with the spontaneous writing section of the *Test of Written Language - 2 (TOWL-2).* The test provides standardized percentile ranking in six areas: Contextual Style, Contextual Spelling, Syntactic Maturity, Contextual Vocabulary, Thematic Maturity, and a Spontaneous Writing Quotient. For the purposes of this study, the comparisons will be limited to items directly related to revision and editing. These items are Syntactic Maturity (appropriate syntactical structure as established by conventional English usage), Contextual Style (appropriate punctuation, capitalization, and sentence types - See Appendix B), Thematic Maturity (appropriate use of language as related to the picture presented), and the Spontaneous Writing Quotient (a composite of all elements of spontaneous writing as measured by this instrument).

Comparisons are on two levels. The first comparison is between the learning disabled student in the mainstream and those in a pullout resource center. They were compared in September, 1994 and again in March, 1995. The unit of comparison is the percent of difference between the percentile rankings (increase/decrease) of the two groups.

The second level of comparison is more homogeneous. Each group was compared internally between the results of pretest and posttest. Since adolescence is a time of dramatic maturational change, it is interesting to determine if improvements might be more a matter of intellectual maturity than instructional differences.

The following graph (Figure 1) demonstrates the first level of comparison at the pretest in September, 1994. At this time, the Resource center students most noticeably demonstrated a deficit in Contextual Style. In the other areas, the two groups were similar. When writing an Individualized Educational Program (IEP), students placed in a pullout program are generally identified as needing more remediation in a given area. It is expected that a learning disabled student placed in the mainstream will be able to progress with his/her class. The results of the pretest seem to support the decisions made with regard to these students.

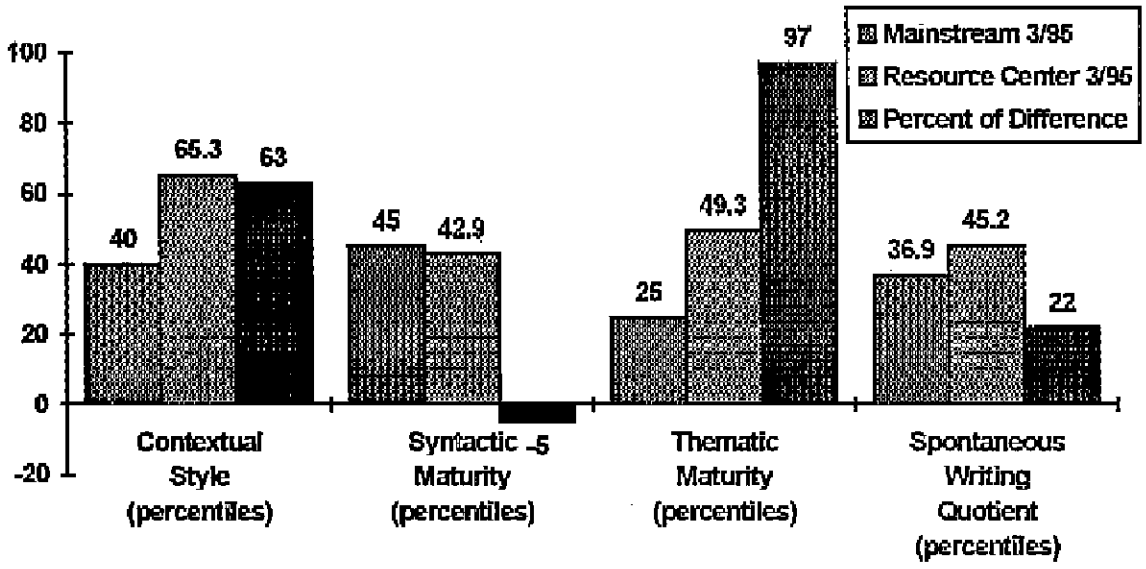
Figure 1: Comparison of Percentile Rankings at Pretest -September, 1994



After six months of strategy instruction in the Resource center while the mainstreamed students were instructed with traditional grammar and process writing, the

two groups were tested with Form B of the *TOWL-2*. The results of this posttest (see Figure 2) show a marked difference in both Contextual Style, Thematic Maturity, and the Spontaneous Writing Quotient. Although a comparison of the two groups shows little percent difference in Syntactic Maturity, a homogeneous comparison of each group indicates that both groups did improve at almost the same rate in this area.

Figure 2: Comparison of Percentile Rankings at Posttest - March, 1995

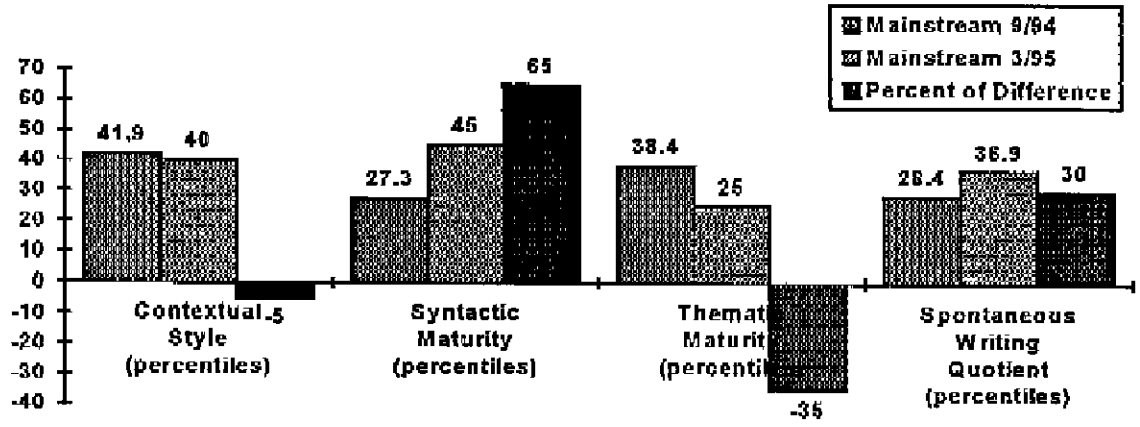


Learning disabled students instructed in the resource center performed 63% better than their mainstreamed peers in the area of Contextual Style. Since this is the area most directly associated with mechanics and editing, these results indicate a significant improvement in this area. Thematic Maturity showed a positive 97% difference between the resource center students and their peers. This relates to the writing process step of revision and indicates another area of significant difference.

The second level of comparison also produced interesting results. When each group was compared internally with the percent of change between September, 1994 and March, 1995, the differences were startling. Figure 3 represents the percentile results

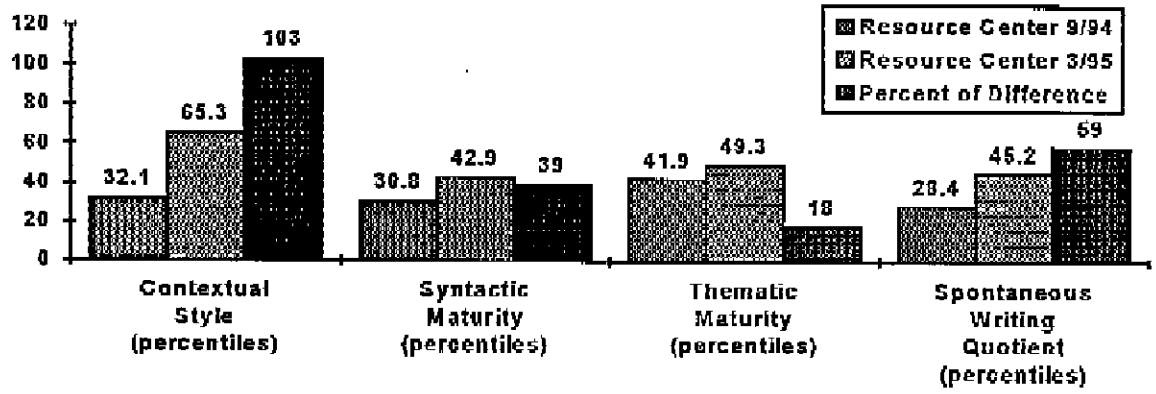
between pretest and posttest of the mainstreamed students and Figure 4 represents those of the resource center students.

Figure 3: Comparison of Mainstream Percentile Rankings from Pretest to Posttest



The negative percents of change for Contextual Style (editing) and Thematic Maturity (revision) are significant. Instead of improving with time and instruction, these students actually seemed to deteriorate in their skill levels.

Figure 4: Comparison of Resource Center Percentile Rankings from Pretest to Posttest



The same subtest results for the resource center students showed a marked positive change in the areas of Contextual Style and Thematic Maturity.

The New Jersey Holistic Scoring Rubric produced results indicating comparable overall improvement for both groups. On a range of 1 - 6, the mainstreamed students averaged 3.18 in September and 3.50 in March. This was a positive increase of 10%. The resource center students scored an average of 3.11 in September and 3.44 in March. This was a positive increase of 11%. Both groups had individuals who performed very well, but the overall mean was affected by a comparable number of students who performed poorly.

Results of a measure of confidence:

The original hypothesis included a measurable improvement in confidence as well as competence. The results of the questionnaire used to measure confidence (see Appendix A) were less definitive than those measuring competence. Learning disabled students in both groups indicated insecurity in their estimation of their own ability. Specific strategy instruction did not seem to improve this overall attitude.

When asked if there were things that they *liked* about writing stories or reports, both groups went from a definite no to a qualified yes between September and March. Anecdotal comments indicated that the topic for writing was often the major determination. Being allowed to choose their own topics seemed to be a universal request. Mainstreamed students perceived themselves as being average to slightly above average in writing ability while resource center students considered themselves slightly below average.

Specific inquiries into the need for the editing and revising processes elicited comparable responses. Both groups agreed that these were important jobs, but they also stated that they generally revise or edit while writing rather than as a later step.

One question that was asked was, "When writing a paper, I find it easy to make all the changes I need to make." Mainstreamed students indicated 3.2 in September and 3.3 in March (on a continuum of opinion from 1 being strongly disagree to 5 being strongly agree). Resource center students averaged 2.6 in September but rose to an average of 3.2 in March. This was a 23% positive change toward editing and revising.

Several of the questions required anecdotal responses rather than a simple check mark. The biggest concern for all learning disabled students seemed to be spelling. They perceived this as a major deficiency in their writing. Another area of concern that did not change from pretest to posttest was a perceived lack of imagination when it came to writing. Learning disabled students also felt that since they did not pay attention, did not work hard, or did not try often enough, they were not successful writers.

In the fall, students responded to the question, "How do you write best?" with simplistic comments such as, with a pencil, by printing, in school, etc. In the spring, both groups were more specific and elaborative in their replies. A sample of responses were: when I am happy, when I have a picture to make me think about something, when I pick a topic that interests me, when I think about sports. The emphasis shifted from the mechanics of writing to the purpose for writing.

Summary:

This is an analysis of the information gathered as the result of a pretest and posttest administered to learning disabled seventh grade students. The hypothesis stated that LD students taught in the resource center using specific cognitive strategy instruction in revising and editing would improve their skills more than their LD peers taught using traditional grammar instruction in the mainstream.

During the September, 1994 pretest, students completed the spontaneous writing sample from Form A of the *Test of Written Language-2 (TOWL-2)* and were asked to complete a self-evaluative questionnaire concerning their ideas and attitudes about writing. The procedure was duplicated in March, 1995 using Form B of the *TOWL-2* and the same questionnaire. The groups were compared on two levels. First, the pretest and posttest results of the mainstreamed group were compared to the resource center group. The comparison was based on the percent of change of the statistical mean percentile rankings of each group. Since the research question concerned the writing and editing processes, the subtest scores compared were Thematic Maturity, Syntactic Maturity, Contextual Style, and the composite Spontaneous Writing Quotient. The number of words produced was also compared. The second comparison was homogeneous within each group. Pretest and posttest results were compared for the mainstreamed LDs as well as for those in the resource center.

In the September pretest, the experimental (resource center) group showed a 23% lower percentile ranking in Contextual Style than the control (mainstream) group, 13% higher in Syntactic Maturity, and 9% higher in Thematic Maturity. There was no statistical difference between the two groups in the overall Spontaneous Writing Quotient. The resource center group produced 5% fewer words than their mainstreamed peers.

The March posttest provided dramatically different results. The experimental (resource center) group scored 63% higher than the control (mainstream) group in Contextual Style, 5% lower in Syntactic maturity, 97% higher in Thematic Maturity, and 22% higher in the overall Spontaneous Writing Quotient. The resource center group produced 9% fewer words than the mainstreamed group.

Additional comparisons were done on each group comparing their pretest performance against their own posttest performance. The control group scored 5% *lower* in Contextual Style (punctuation, capitalization, sentence types) in March than they had scored in September. Their Syntactic Maturity score increased by 65%, but their Thematic Maturity score *decreased* by 35%. The overall Spontaneous Writing Quotient increased by 30%. Word production also increased, 44%.

The experimental group displayed increases in all measures. Contextual Style increased 103%, Syntactic Maturity went up by 39%, Thematic Maturity by 18%, and overall Spontaneous Writing Quotient by 59%. Word production increased by 39%.

Each group increased at about the same rate using the rubric of the New Jersey Holistic Scoring Method. The mean score for the control group increased 10% from 3.18 to 3.50. The experimental group increased 11% from 3.11 to 3.44.

The preceding measures of competence in editing and revising were definitive and moderately objective in scoring analysis. The measure of confidence, the self-evaluative questionnaire, was considerably more subjective and far less definitive. The control group evaluated themselves as being average to slightly above average writers. The experimental group considered themselves to be slightly below average. Neither opinion changed from pretest to posttest. The experimental group did have a slight improvement in their attitude toward editing and revising, but it was not enough to be considered meaningful.

The biggest change came in the anecdotal comments. For both groups, September responses about writing dealt with mechanics, spelling, boredom, and distaste. The March responses displayed subtle changes. Rather than mechanics, the experimental group was now more interested in the purpose for writing. Both groups were more specific and

descriptive in their opinions in the posttest. The factor which was discussed most often was a desire to write based on personal choice rather than assigned topic.

Specific strategy instruction in revising and editing did not seem to produce a noticeable improvement in attitude or confidence.

CHAPTER V

Summary of Study:

Writing, viewed by some as an art, has definite form and structure. In the pre-electronic age it was the primary means of communication. Current educational philosophy embraces writing as important and the process of writing as a necessary part of language curriculum. There are diverse opinions with regard to the instruction of the mechanics necessary to the revising and editing part of the process.

Research and experience indicate that grammar taught in isolation is not automatically transferred to writing and that the time devoted to grammar instruction could better be applied to process writing instruction. Process writing is generally taught using the sequential activities of prewriting, first draft, revision, editing, and final draft (or publication). Over time, many teachers have embraced the concept of writing instruction and relegated grammar instruction to a very small part of their plans.

Learning disabled students rarely possess the intuitive grammar associated with effective written communication. If their individual disability is in the area of language, they may lack the expertise to be able to apply what they have experienced to their own work. Task analysis, long a stalwart intervention in the special education classroom, recommends a drill and practice approach to the mechanics of language instruction. Unfortunately, this practice reduces language to bits and pieces that the exceptional student is rarely able to reassemble into meaningful communication.

A review of the current literature on writing instruction shows that researchers have verified the fact that grammar taught in isolation is frequently ineffective. Other studies, however, indicate that there is a need for *some* instruction in the mechanics of

conventional English usage. How and when this instruction should take place is the source of debate among researchers and educators.

There is an emerging interest in specific strategy instruction in the area of writing, particularly for the exceptional student. Since the learning disabled student often has difficulty with the transfer of learning, specific metacognitive strategies provide a tool which the student can apply to all writing tasks.

The hypothesis proposed in this study is that learning disabled students can benefit from specific strategy instruction in the area of grammar and transfer that learning to their own writing. The study compares learning disabled students in a resource center pullout program with their learning disabled peers in mainstream classrooms. The resource center students, constituting the experimental group of nine, were taught specific strategies to assist them in the revising and editing steps of the writing process. The strategies used were based on *The Hunter Writing System: Sentence Sense*. In addition, they were given many opportunities to write and then to revise and to edit their own work. The control group of eleven was taught in several different mainstream classes using traditional grammar instruction (primarily in isolation).

The elements measured were competence as well as confidence. Competence was assessed by use of the spontaneous writing sample from the *Test of Written Language-2* administered in a pretest (Form A) in September, 1994 and a posttest (Form B) in March, 1995. The subtests used were those of Contextual Style (capitalization and punctuation), Syntactic Maturity (ability to use complex sentences correctly), Thematic Maturity (ability to write in a logical, organized fashion), and the composite Spontaneous Writing Quotient.

Each writing sample was also scored using the New Jersey Registered Holistic

Scoring Method. Confidence was measured by means of a self-evaluative questionnaire filled out by each student at both the pretest and posttest. The questionnaire was designed to measure each student's attitude and opinion about writing with an emphasis on revision and editing.

The primary limitation of the study related to the subjective nature of scoring. Since the scorer was also the experimental instructor, elements of bias needed to be minimized. This was accomplished by assigning a control number to each assessment protocol rather than a name. Some elements of the spontaneous writing sample for the *TOWL-2* are subjective, but the test manual delineates scoring parameters to reduce subjectivity.

In the September pretest, the experimental (resource center) group scored 23% lower in Contextual Style than the control (mainstream) group, 13% higher in Syntactic Maturity, and 9% higher in Thematic Maturity. There was no statistical difference between the two groups in the overall Spontaneous Writing Quotient. The resource center group produced 5% fewer words than their mainstreamed peers.

The March posttest provided dramatically different results. The experimental (resource center) group scored 63% higher than the control (mainstream) group in Contextual Style, 5% lower in Syntactic maturity, 97% higher in Thematic Maturity, and 22% higher in the overall Spontaneous Writing Quotient. The resource center group produced 9% fewer words than the mainstreamed group.

Each group increased at about the same rate using the rubric of the New Jersey Holistic Scoring Method. The mean score for the control group increased 10% from 3.18 to 3.50. The experimental group increased 11% from 3.11 to 3.44.

The results of the self-evaluative questionnaire were far less definitive. The control group evaluated themselves as being average to slightly above average writers. The experimental group considered themselves to be slightly below average. Neither opinion changed from pretest to posttest. The experimental group did have a slight improvement in their attitude toward editing and revising, but not enough to be considered significant.

Discussion:

There is a legislative mandate to educate the learning disabled in the least restrictive environment. The most common recommendation is mainstream placement for the mildly handicapped. For social, emotional, and economic reasons this is usually a wise decision. However, are the language disabled being well served by today's curricula?

Over the past few decades there has been a gradual shift from precise grammar instruction to the learning of syntax through the reading and writing processes. The basis for this shift is empirically supported by the fact that grammar taught in isolation does not automatically transfer to writing. It has been proven that most children possess an intuitive grammar derived from language experience.

With this information, some teachers have abandoned grammar instruction entirely. They teach syntax and conventional usage through peer editing and cooperative learning from within the writing process. Others refuse to give up their belief that drill and practice is the only way to really learn. Grammar workbooks and isolation exercises are the foundation of their instruction. It may be that neither approach serves the disabled student well.

The learning disabled student often falls outside of the group that has learned grammar intuitively through experience. Now, in the regular education classroom, he is

expected to know how to revise and how to edit his own writing or at least to be able to identify his own errors. For the most part, this is an exercise in futility.

In a more "traditional" classroom, he struggles through exercises that rarely translate to anything he will use in his own written communication.

The results of this study were based on a comparison of learning disabled seventh grade students taught in a regular education setting with a group of their peers taught in a resource center. The mainstreamed students learned "traditional" grammar while those in the resource center were taught specific strategies in how to identify and to correct their own mistakes.

The results were significant. Those taught strategically were able to spontaneously produce writing which was more correct and thematically mature than their peers. They approached the writing task with no apparent trepidation since they had been writing, revising, and editing all year.

Interestingly, neither group exhibited any change in their levels of confidence with regard to their ability to write effectively. Even though the students in the experimental group had improved significantly, they did not recognize or acknowledge any marked change in a self-evaluation.

Observations:

The *TOWL-2* is a difficult instrument to use if an experimenter wishes to be objective. Even if anonymity is maintained through the use of control numbers, a teacher/researcher can easily recognize individual style and handwriting. Scoring objectivity is affected by the tendency to want to "assume" what the student intended rather than score what was actually written. It requires concentration and consistent focus

to avoid these pitfalls. Future research might benefit by having a trained but uninvolved scorer.

The computer scoring program was a benefit in expediting the statistical measures. There was one thing, however, that was of some concern. In establishing chronological age at the time of testing, the computer did not round up the number of days >15 to the next chronological month. If a student's age fell at a statistical age "break", this could affect percentile scores. In this study that factor did not play a part, but it is worth noting.

Recommendations for additional research:

It would be interesting to discover whether strategy instruction is retained by the experimental group over time. Will they continue to apply the strategic learning to their writing or was this simply an example of performing to a teacher's expectations?

Additionally, could it not be possible that regular education students might benefit from this type of instruction? Learning the nuances of conventional English usage could enhance their ability to communicate more effectively. It may not be correct to assume that these subtleties will be learned through experience.

Appendix A

Sample questionnaire used to measure self-evaluation of confidence

NAME:_____ DATE:_____

1. What is writing all about in your opinion?

_____

_____

_____

_____

2. Are there some things that you like about writing stories or reports?
(check one):

Yes_____ No_____

What are they?

_____

_____

_____

3. Are there some things that you do ***not*** like about writing stories or reports?
(check one):

Yes_____ No_____

What are they?

_____

_____

_____

4. Is story or report writing a hard thing for you to do?

Yes_____ No_____

Why?_____

_____

_____

5. How good a writer would you say you are? (circle one):

excellent above average average below average very below average

Why do you think so?

6. What things does a person have to LEARN to be a good writer?

7. Why do you think some junior high students have trouble writing stories or reports?

8. What things do ***you*** need to learn to be a better writer than you are right now?

9. What goes on in your head when you write?

10. How do you write best?

11. I think that editing and revising writing assignments are important jobs.

1	2	3	4	5
strongly disagree	somewhat disagree	unsure	mostly agree	strongly agree

(check all that apply to you)

_____I rarely need to edit or revise anything I write

_____I'm not very good at editing or revising

_____I usually don't have time to edit or revise

_____I usually forget to edit or revise

_____editing or revising won't make a difference in my grade

_____I'm not sure how to edit or revise

_____editing or revising is too much trouble

_____small writing mistakes don't matter

_____nobody important will read what I have written

_____I find mistakes and correct them as I write

ATTITUDES ABOUT WRITING:

(circle the answer that best describes your opinion):

12. I like to write.

1	2	3	4	5
strongly disagree	somewhat disagree	unsure	mostly agree	strongly agree

13. I would rather read than write.

1	2	3	4	5
strongly disagree	somewhat disagree	unsure	mostly agree	strongly agree

14. I do writing on my own outside of school.

1	2	3	4	5
strongly disagree	somewhat disagree	unsure	mostly agree	strongly agree

15. I avoid writing whenever I can.

1	2	3	4	5
strongly disagree	somewhat disagree	unsure	mostly agree	strongly agree

16. I would rather write than do math problems.

1	2	3	4	5
strongly disagree	somewhat disagree	unsure	mostly agree	strongly agree

17. Writing is a waste of time.

1	2	3	4	5
strongly disagree	somewhat disagree	unsure	mostly agree	strongly agree

18. When writing a paper, it is easy for me to get ideas.

1	2	3	4	5
strongly disagree	somewhat disagree	unsure	mostly agree	strongly agree

19. When writing a paper, it is hard for me to organize my ideas.

1	2	3	4	5
strongly disagree	somewhat disagree	unsure	mostly agree	strongly agree

20. When writing a paper, it is easy for me to get started.

1	2	3	4	5
strongly disagree	somewhat disagree	unsure	mostly agree	strongly agree

21. When writing a paper, I find it easy to make all the changes I need to make.

1	2	3	4	5
strongly disagree	somewhat disagree	unsure	mostly agree	strongly agree

22. When writing a paper, it is easy for me to write my ideas into good sentences.

1	2	3	4	5
strongly disagree	somewhat disagree	unsure	mostly agree	strongly agree

23. When writing a paper, it is hard for me to keep the paper going.

1	2	3	4	5
strongly disagree	somewhat disagree	unsure	mostly agree	strongly agree

24. When writing a paper, it is hard for me to correct my mistakes.

1	2	3	4	5
strongly disagree	somewhat disagree	unsure	mostly agree	strongly agree

25. When my class is asked to write a report, mine is one of the best.

1	2	3	4	5
strongly disagree	somewhat disagree	unsure	mostly agree	strongly agree

26. When my class is asked to write a story, mine is one of the best.

1	2	3	4	5
strongly disagree	somewhat disagree	unsure	mostly agree	strongly agree

Questionnaire based on studies of Bernice Y.L. Wong *et al*, Simon Fraser University and Edwin S. Ellis, University of Alabama.

Appendix B

Item content and weights used to measure *TOWL-2* subtest of Contextual Style

Subtest X. Contextual Style

Points	Item Content
1	1. Period at end of a statement.
1	2. Period after initials.
2	3. Period after abbreviations.
1	4. Comma between day of month and year.
1	5. Comma between city and state.
2	6. Comma to separate parts of a series.
2	7. Comma to set off words of direct address.
2	8. Comma to separate a direct quotation.
2	9. Comma after introductory words (yes, no) and interjections.
3	10. Comma after introductory clauses or phrases.
3	11. Comma before the conjunction in a compound sentence.
3	12. Comma before and after embedded modifiers.
1	13. Question mark after interrogative sentence and after a question within a larger sentence.
2	14. Colon to separate the hour from minutes.
2	15. Apostrophe in contractions.
2	16. Apostrophe to show possession.
3	17. Apostrophe to show plurals of numbers and letters.
2	18. Quotation marks before and after a direct quote or a word of importance or special meaning.
3	19. Exclamation mark at the end of an exclamatory word or sentence.
2	20. Hyphen at end of line to show divided word, to form compound word, or to separate digits in a telephone number.
1	21. Capitalization of first word of a sentence.
1	22. Capitalization of the word I.
2	23. Capitalization of first and last names of a person or initials.
1	24. Capitalization of name of street or road.
1	25. Capitalization of name of city, town, or state.
1	26. Capitalization name of school or special place.
1	27. Capitalization of names of months and days.
1	28. Capitalization of abbreviations.
2	29. Capitalization of first and important words in titles of books, stories, or concluding statements.
2	30. Capitalization of titles used with names of persons.
2	31. Capitalization of names of organizations.
2	32. Capitalization of sacred names (e.g. deities).
2	33. Capitalization of proper names (e.g., countries, seas, planets, races, nationalities, languages).
3	34. Capitalization of adjectives derived from proper names.

Appendix C

September, 1994 Pretest Percentile Rankings for Resource Center Group

CTRL NBR	SEX	# WORDS	NJHSM	AGE	TM	CVOC	SM	CSP	CST	SWQ
501	FE	100	2	12-5	5	16	9	25	25	7
502	M	132	3	13-3	37	25	50	37	50	35
503	M	44	2	13-9	2	5	9	1	5	1
504	M	79	2	13-4	16	5	16	9	50	8
505	M	177	5	13	84	75	75	75	9	68
506	M	65	3	13-2	75	9	9	9	25	13
507	M	68	3	13	9	9	9	9	25	5
508	FE	103	4	13	50	37	37	25	50	35
509	M	180	4	13-7	99	50	63	75	50	84
MEAN		105.33	3.11	13-2	41.89	25.67	30.78	29.44	32.11	28.44

Legend

CTRL NBR - control number assigned to individual students to minimize scorer bias

WORDS - total number of words produced during spontaneous writing test

NJHSM - New Jersey Holistic Scoring Method, rubric score 1-6

AGE - chronological age: years - months

TM - Thematic Maturity subtest *Test of Written Language - 2*

CVOC - Contextual Vocabulary subtest *Test of Written Language - 2*

SM - Syntactic Maturity subtest *Test of Written Language - 2*

CSP - Contextual Spelling subtest *Test of Written Language - 2*

CST - Contextual Style subtest *Test of Written Language - 2*

SWQ - Spontaneous Writing Quotient *Test of Written Language - 2*

Appendix D

March, 1995 Posttest Percentile Rankings for Resource Center Group

CTRL NBR	SEX	# WORDS	NJHSM	AGE	TM	CVOC	SM	CSP	CST	SWQ
501	FE	245	3	12-11	50	50	84	95	50	77
502	M	171	4	13-9	37	37	63	50	63	50
503	M	71	2	14-2	16	9	9	2	25	4
504	M	100	3	13-9	75	16	2	9	75	21
505	M	151	5	13-6	75	91	63	37	91	81
506	M	42	3	13-8	16	2	2	1	25	1
507	M	160	4	13-5	37	16	37	50	84	42
508	FE	196	3	13-5	75	37	63	63	91	73
509	M	182	4	14-1	63	16	63	50	84	58
MEAN		146.44	3.44	13-8	49.33	30.44	42.89	39.67	65.33	45.22

Legend

CTRL NBR - control number assigned to individual students to minimize scorer bias

WORDS - total number of words produced during spontaneous writing test

NJHSM - New Jersey Holistic Scoring Method, rubric score 1-6

AGE - chronological age: years - months

TM - Thematic Maturity subtest *Test of Written Language - 2*

CVOC - Contextual Vocabulary subtest *Test of Written Language - 2*

SM - Syntactic Maturity subtest *Test of Written Language - 2*

CSP - Contextual Spelling subtest *Test of Written Language - 2*

CST - Contextual Style subtest *Test of Written Language - 2*

SWQ - Spontaneous Writing Quotient *Test of Written Language - 2*

Appendix E

September, 1994 Pretest Percentile Rankings for Mainstream Group

CTRL NBR	SEX	# WORDS	NJHSM	AGE	TM	CVOC	SM	CSP	CST	SWQ
301	M	160	3	12-8	37	50	25	50	50	40
302	M	91	2	13-2	16	9	16	16	25	8
303	M	88	3	12-7	16	16	16	16	9	7
304	M	81	4	12-11	37	37	25	16	50	25
305	M	112	2	13-3	50	1	25	25	9	8
306	M	126	2	13	50	25	25	37	37	30
307	M	136	3	13	50	50	50	50	84	60
402	FE	94	3	13-7	16	9	2	25	9	4
401	M	80	4	12-3	37	50	16	9	84	32
404	FE	96	5	12-11	50	50	37	25	95	58
405	M	159	4	13-5	63	25	63	63	9	40
MEAN		111.18	3.18	12-11	38.36	29.27	27.27	30.18	41.91	28.36

Legend

CTRL NBR - control number assigned to individual students to minimize scorer bias

WORDS - total number of words produced during spontaneous writing test

NJHSM - New Jersey Holistic Scoring Method, rubric score 1-6

AGE - chronological age: years - months

TM - Thematic Maturity subtest *Test of Written Language - 2*

CVOC - Contextual Vocabulary subtest *Test of Written Language - 2*

SM - Syntactic Maturity subtest *Test of Written Language - 2*

CSP - Contextual Spelling subtest *Test of Written Language - 2*

CST - Contextual Style subtest *Test of Written Language - 2*

SWQ - Spontaneous Writing Quotient *Test of Written Language - 2*

Appendix F

March, 1995 Posttest Percentile Rankings for Mainstream Group

CTRL NBR	SEX	# WORDS	NJHSM	AGE	TM	CVOC	SM	CSP	CST	SWQ
301	M	183	3	13-2	50	91	63	50	37	63
302	M	131	3	14-2	2	5	25	25	9	4
303	M	226	3	13-1	5	16	50	84	25	25
304	M	122	4	13-6	16	63	37	84	63	52
305	M	161	3	13-9	37	9	25	50	16	18
306 *	M	*	*	*	*	*	*	*	*	*
307	M	164	3	13-6	9	16	50	50	37	23
402	FE	158	2	14-1	1	9	25	50	5	5
401	M	164	5	12-9	75	50	75	63	84	77
404	FE	169	5	13-5	50	91	63	50	99	86
405	M	128	4	13-11	5	37	37	25	25	16
MEAN		160.6	3.5	13-5	25	38.7	45	53.1	40	36.9

* student 306 transferred into self-contained program

Legend

CTRL NBR - control number assigned to individual students to minimize scorer bias

WORDS - total number of words produced during spontaneous writing test

NJHSM - New Jersey Holistic Scoring Method, rubric score 1-6

AGE - chronological age: years - months

TM - Thematic Maturity subtest *Test of Written Language - 2*

CVOC - Contextual Vocabulary subtest *Test of Written Language - 2*

SM - Syntactic Maturity subtest *Test of Written Language - 2*

CSP - Contextual Spelling subtest *Test of Written Language - 2*

CST - Contextual Style subtest *Test of Written Language - 2*

SWQ - Spontaneous Writing Quotient *Test of Written Language - 2*

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