Seven research-based papers on writing disorders of learning-disabled college students are listed and reviewed. The papers deal with persistent auditory language deficits in adults with learning disabilities; error patterns and instructional alternatives relating to college learning-disabled writers; syntactic complexity in written expression; comprehension and production abilities of college writers who are normal achieving, learning disabled, and unprepared; data-based procedures for analysis of written expression disabilities; and computer analysis of written language variables and a comparison of compositions written by university students with and without learning disabilities. A summary concludes that coherence and mechanics in the essays of learning disabled writers are inferior to those of even basic nondisabled writers. Standardized tests do not reveal these weaknesses and compensatory strategies ensure high school completion and college entrance. Colleges need to develop strategies to accommodate the needs of their learning-disabled writers. (Seven references) (JDD)
LD COLLEGE WRITERS: AN ANNOTATED BIBLIOGRAPHY

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INTRODUCTION

Though research on writing disorders of learning disabled college students is limited, the literature that is available succeeds in raising issues critical to future research and classroom practice. First, one may reason that the few articles available on the topic may indicate controversy regarding the actual enrollment of LD students in postsecondary institutions. The studies reviewed do, of course, document such cases, and, more importantly, they raise serious pedagogical concerns: the need for reliable screening procedures to identify LD writers and the need to understand the nature of their problems. Attention to relevant research forces a teacher/researcher to evaluate placement procedures and instructional strategies.

LITERATURE

GLOBAL LANGUAGE DEFICITS: ADOLESCENTS AND ADULTS


Blalock's study of 80 Learning Disabled young adults reveals insights regarding the global nature of persistent auditory language deficits. Through surveys, interviews, testing, and documented language experiences, Blalock noted that various deficiencies, such as articulation errors, noticeable syntax errors, auditory processing deficits and memory problems, and word retrieval difficulties, reflect a broader language problem -- the absence of metalinguistic awareness and the ability to think about, talk about, and manipulate language which, according to Blalock, carries over to other skills like reading, writing, and even math.

Blalock recorded auditory deficient adults' limited awareness of grammar rules and their inability to build sentences when given certain cues, particularly when
function words had to be employed. Blalock found that her subjects' difficulties in producing oral language were accompanied by more severe problems in written language production. Thus, she emphasizes that although research and instruction consider language as several separate functions -- speaking, reading, writing, and listening, the skills are very much interrelated.

Since Blalock finds a connection between auditory deficits and written language disorders, she cautions practitioners to avoid early termination of oral language development/remediation. In addition, her belief is that, in some cases, associated deficits may not even manifest themselves until individuals engage in sophisticated language experiences, and, thus, she expresses the need for adult-level LD language instruction and research for individuals in higher education and professional settings.

Knott

LD AND NON-LD COLLEGE WRITERS: ERROR ANALYSIS AND INSTRUCTIONAL STRATEGIES


According to Gregg, writing is LD students' most deficient skill. However, learning disabled college writers do not always receive the attention and instruction they require since holistic screening procedures practiced at
many postsecondary institutions fail to classify poor writers as either basic or disabled though they succeed in separating normal and poor writers. Gregg’s purpose is to contrast error patterns of LD and basic writers and discuss appropriate methods for screening and teaching the former group.

Citing her previous studies of learning disabled and basic writers across tasks (1982), Gregg identifies differences between the two groups. In expository essays, basic writers had problems with tense and parallel and tended to omit commas. In the same type of work, learning disabled students used commas where they were not needed and frequently omitted them when they were indeed necessary. In addition, they misspelled words, dropped word endings, and left out verbs, articles, and prepositions. When writing controlled stimulus passages, basic writers tended to omit commas and to write fragments and verb tense errors whereas learning disabled writers manifested the same problems they had with commas in expository prose. Furthermore, misspellings, dropped endings, and meaningless sentence errors characterized their work. From these data, Gregg concludes that basic writers’ problems stem from inadequate instruction while learning disabled students’ errors reflect underlying processing problems. As a result, Gregg challenges uniform instruction, based on holistic placement, for basic and learning disabled writers and describes necessary, suitable instruction for the latter group.
Examining the groups' contrasting errors, Gregg concludes that basic writers can manipulate syntactic structures into meaningful discourse while the learning disabled cannot. Therefore, LD writers need to learn about meaning through experiences involving manipulation of language. They need practice in understanding the purpose, function, and meaning of linguistic structures, which can be developed through guided composition and sentence-combining, both of which are based on the implicit instruction of grammar.

Gregg feels that these instructional strategies stimulate and develop innate language abilities, thus improving students' meta-awareness of language as well as the reprocessing of structure and form.


Vogel reviews previous research which documents college level LD writers' problems with punctuation. In addition, she reviews current research on the complex stages of the writing process, suggesting that time magnifies LD writers' problems as advanced writing involves complex thought and processing. Mechanical errors, Vogel argues, are only one facet of students' writing problems. Interested in another feature of composition, Vogel designed an exploratory research project to compare the syntactic complexity (rather than grammatical errors) of college LD writers and their
peers in order to identify differences, if any, between groups and to evaluate an alternate method of analysis.

Employing Bélanger’s Correction for the Syntactic Density Scale (CSDS, a computerized assessment process), Vogel evaluated the written work of 33 LD and 33 non-LD college writers according to the ten best predictors of good writing (Golub and Frederick). These criteria include the number of words and subordinate clauses per T-unit, word length of various types of clauses, and the number of modals, auxiliaries, prepositional phrases, possessives, adverbs of time, and particular verb forms (gerunds, participles, and absolutes). Students submitting writing samples for analysis were native English-speaking female students between the ages of 17 and 25. LD subjects were self-identified students whose learning problems had been diagnosed in their youth according to Federal guidelines. Students participated in a college-wide testing program which included preparation of an expository essay on an assigned topic, written during a 30-minute time limit. Essays were rated holistically; in addition, they were coded and typed so trained readers could divide text into T-units and then input information into a computer.

Results indicated differences in productivity between LD and non-LD college writers. Non-LD writers employed more words and more gerunds, prepositions, participles, and absolute forms than the LD group did though the number of words per T-unit remained identical for each group. T-unit
length, then, did not seem to distinguish LD writers from non-LD writers; however, LD students' essays were much shorter than those of their peers.

Vogel determined that LD students do differ from their non-LD peers in using fewer complex embedded structures; however, she felt that CSDS is sensitive to syntactic complexity analysis and is capable of supplementing other methods for analyzing written work. Vogel added that assessment should not only include T-units, words per unit, and number of clauses to explore syntactic maturity but that a variety of writing tasks prepared by an individual should be analyzed since syntax varies with task and audience. Finally, reiterating LD college writers' production deficiencies, Vogel advocated instructional practices such as sentence combining exercises for remediation since they permit writers to manipulate language.


Suggesting that previous research on composition emphasized quantifiable measure rather than text as a whole, Gregg and Hay designed a project to compare comprehension of text to production of coherent discourse for three types of college students: normal achieving, learning disabled, and the underprepared. Gregg and Hay reasoned that information gleaned from their analysis would provide direction for
developing appropriate instructional strategies for the varying skills of the populations assessed.

One hundred five Caucasian subjects from middle-class homes were selected for this study. Each group -- LD, normal achieving, and underprepared -- consisted of 35 students. English served as the primary language for all subjects, and LD students' status was confirmed through reference to the National Joint Committee on Learning Disabilities' definition. Data estimating subjects' verbal abilities were obtained through verbal SAT scores and individualized administration of the Peabody Picture Vocabulary Test-Revised. In addition, the Logical Relations Test of Language Skills of the College Board was used to measure subjects' comprehension of a passage based on their understanding of relationships among words, sentences, and ideas in the text. Subjects were also required to prepare narrative essays on an assigned topic. These were rated by university faculty members using a holistic coherence measure.

Results indicated significant group differences for SAT and PPVT-R scores. Analysis of scores for the Logical Relations Test showed no significant differences in text comprehension for normal achieving and LD writers though significant differences in abilities were found between normal achievers and underprepared writers and between underprepared writers and the LD group. However, data on coherence production revealed significant differences
between normal achievers and LD writers; normal achieving writers had the highest coherence rating (2.40) with LD writers following (1.88) and underprepared writers having the lowest rating (1.32). Thus, of the three groups, LD writers demonstrated the greatest discrepancy between comprehension and production, which led Gregg and Hay to conclude that LD writers experience a break down in production processes.

Gregg and Hay believe their insights are important for diagnostic and instructional purposes. First, equal performance in comprehension and production cannot be assumed. Students must be tested for both. Second, further research is needed to address cognitive processes of both comprehension and production to develop instructional strategies suitable for the varied skills of sub-groups requiring college-level written language development.

ERROR PATTERNS OF DYSLEXIC COLLEGE WRITERS


Ganschow's study argues against the common belief that LD writers errors are merely superficial mechanical errors, for such an attitude reveals an unawareness of the deep writing problems of LD students. Through in-depth study of the spontaneous writing of a college student with a history of
language learning problems, Ganschow identifies errors and problems of a dyslexic college writer and describes appropriate instructional strategies.

Ganschow's subject was a male in his junior year at a midwestern university. During the last six week period of his sophomore year, the student submitted two In Class essays and four Take Home papers for Ganschow's assessment. Evaluation of the student's written work included these methods: Hunt's procedure for examining T-unit factors, Boder's non-phonetic categories, Moran's analytic scoring, and Ganschow's own observations.

Analysis of the student's work contributed to a more global description of the his deficiencies. First, the student produced T-unit equivalent in length to those of an average twelfth grader though overall T-unit length in his work varied tremendously. The student exhibited a 9% error rate for spelling in each essay, a rate which was 7.5% higher than those of the control group of normal writers, and he averaged 17.4 grammatical errors per essay. In addition, the student's work reflected semantic errors like incorrect word choices and limited, repetitious vocabulary; organizational problems -- the failure to devise topic sentences; and metacognitive deficiencies such as the inability to select relevant details and the tendency to write everything known about a given topic.

Ganschow's observations revealed what she expected, problems much more serious than surface grammar, and the need
to develop instructional practices focusing on content, language comprehension, and overall fluency in a whole composition. Ganschow's strategies consist of behavioral objectives based on a writer's interaction with an "investigator" who utilizes a problem/solution approach to written language development consistent of continuous questioning of the writer. This procedure guides the writer to think about his work in order to rehearse and internalize fundamental principles of composing.

COMPUTER ANALYSIS OF WRITTEN LANGUAGE DISORDERS


Gajar and Harriman's research project was stimulated by the increasing number of LD referrals at Pennsylvania State University and by the authors' realization that research in LD seems limited to the childhood years, thus creating a misconception regarding possibilities for LD students in postsecondary institutions. In order to serve LD college writers well, Gajar and Harriman devised a study to establish predictive criteria for effective evaluation and placement of writers with varying abilities.

423 writers, enrolled in various writing courses, participated in the study by composing in-class essays at the beginning of the term; these papers were evaluated in two different ways, with results correlated to identify any
measurable predictors of a holistic grade. First, the compositions were rated holistically by trained faculty members. Next, the essays were analyzed electronically for these factors and measures: syntactic maturity (a T-unit count), fluency (total word count and word count per paragraph), and vocabulary (rated by frequency of word usage and length of word, Herden's K, and Carol's token ratio). These data, paired with holistic scores, indicated that the number of different words in a composition is the single best predictor of individual holistic evaluation of writers. Gajar and Harriman then proceeded to analyze the essays of LD referrals in this manner, and these students' word counts were low, matching data at the lower end of the 423 student sample, suggesting that LD writers employ limited, repetitious vocabulary when composing.

Since research on LD college students is sparse, Gajar and Harriman feel their work is significant since they identify the verbal limitations of LD writers which, they feel, provides direction for instruction; students with such limitations require individualized instruction to vary their language and thus improve their fluency.


The generalizations regarding LD writers in Gajar and Harriman are explicated further in this particular
discussion. Since the original sample -- 423 students -- was
too large for comparative study, a random stratified sample
of 60 students was selected and compared to 30 LD students
who were diagnosed at Penn State University according to
federal guidelines. LD students prepared the same essays
that the normal students did, and the CLAS program was
employed to generate a computer analysis of written language
based on 17 factors. Features of writing tallied were
similar to those in the Gajar and Harriman study: measurable
data such as number of sentences, number of questions, and
index of diversification. The factor structure revealed a
three-factor component: vocabulary/fluency, syntactic
maturity, and vocabulary/diversity. Students with learning
disabilities were significantly different from their non-LD
peers on fluency and vocabulary variables though their
T-unit counts remained similar. This information suggest
that on the postsecondary level, instructional strategies
for LD writers must include vocabulary-building for written
language production. In addition, Gajar concluded that the
T-unit may not be the best determiner of syntactic maturity.
Though the author does not feel her results can be
generalized to another institution, the study does
illustrate a procedure for identifying factors for computer
analysis of written language.

SUMMARY
The last decade has marked a back-to-basics movement in American colleges and universities. With this has come the commitment to developing students' writing skills. As a result, composition courses, remedial to advanced, are required of students, and various methods for placing students have evolved. Screening procedures have put faculty-raters in touch with students' raw abilities and their varied skills. When evaluating essays, most raters come across the paper(s) whose coherence and mechanics are inferior to those of even the basic writer, the work of LD writers whose disorders have not, to date, surfaced or whose compensatory strategies ensured high school completion and college entrance. These students' standardized tests do not even reveal their weaknesses, and just as colleges develop strategies for special populations such as ESL students, they must serve the learning disabled. The preceding studies raise the subtle, necessary issues college composition faculty must address as they work to accommodate the needs of their LD writers.