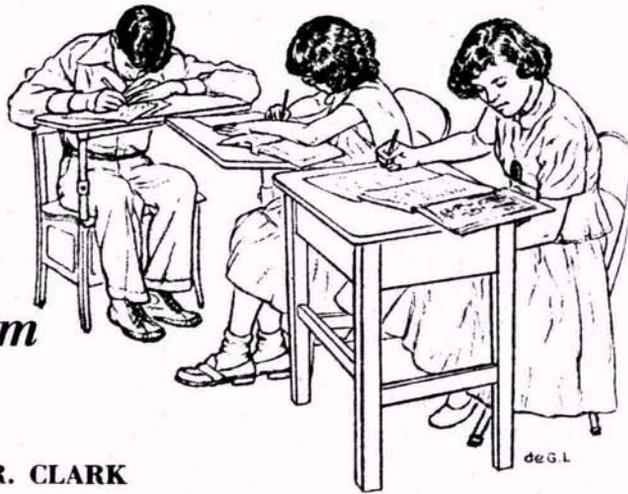


My Rewards from Curriculum Research



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Through scientific study of the writing of her sixth grade pupils, the author of this article gained deeper insight into the techniques of research and the interpretation of research findings.

THE TERM "curriculum research" used to be for me a forbidding, far-away concept. To me it seemed to refer to experiments being carried on by highly trained experts in the laboratory schools of such huge universities as Ohio and Chicago—experiments reported in highly technical terms, published in scholarly journals, and regarded with great awe and wonder. Not until I had taught for many years did I come to realize that a teacher has in his own classroom an immeasurably fertile laboratory for some of the most valuable curriculum research.

During the school year 1950-51, with considerable trepidation I began a firsthand study of the writing of my own sixth grade students. What were

the characteristics of the written language of eleven- and twelve-year-olds? I had thirty-six of them in my own classroom. Why not find out from them? I saved everything the children wrote during the year. After school closed, I undertook the tremendous job of analyzing the accumulated data.

First, I analyzed the compositions according to language structure. I determined the length of each composition, both in number of sentences and number of words, and the growth in length during the year. I determined the average sentence length for each child, for the class as a whole, and the growth in sentence length for the year. I determined the amount and kind of subordination: the percentages of simple, compound, complex, and compound-complex sentences; the percentages of noun, adjective, and adverbial clauses; and the amount and kind of subordination secured through verbals.

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I determined, also, the growth in subordination during the year.

Next, I turned my attention to the appraisal of style and quality. I read the compositions through rapidly and jotted down what seemed to me to be attributes of quality appearing and reappearing throughout the students' writing. Twelve such attributes I found with sufficient frequency to be listed.

1. Elaboration, richness, and specificity of ideas in contrast to enumeration—skeleton-like listing of ideas with little description or imagination

2. Organization of ideas into some logical order or sequence

3. Ability to interpret experience and make inferences and generalizations

4. Sincere expression of personal feelings and reactions—sometimes designated by such terms as projection and identification

5. Use of comparisons to point up likenesses and differences

6. Conscious, purposeful use of repetition as contrasted to awkward, unnecessary use

7. Use of fluent, natural conversation

8. Apt and unique expression—use of colorful words

9. Inverted or unusual sentence order

10. Vivid imagination

11. Establishment of mood or atmosphere

12. Validation of statements.

Later I reread the compositions in terms of each of these twelve attributes. Was the quality characteristic of most of the writing of these eleven- and twelve-year-olds? Was it characteristic of the writing of only the more mature students in the class? Was it found only occasionally or perhaps accident-

ally at this level? Was there evidence that the writing done in this sixth grade classroom was gradually improving in any of these twelve qualities? If so, what were the patterns of growth?

Finally I made case studies of the boy and girl producing the highest and the boy and girl producing the lowest quality of writing in an attempt to account for the difference in degrees of excellence in written expression.

What insights did I gain from my investigation? What generalizations could I draw? Would it be possible to use the resulting knowledge to improve my classroom techniques? How could I as a teacher profit from my own curriculum research?

Statistical Findings

It was comforting to me to find that in spite of individual differences, these thirty-six boys and girls in my sixth grade class in Cedar City, Utah, relatively young chronologically and slightly retarded in grade achievement as measured by the Otis Classification Test, were in quality and length of their compositions not unlike other boys and girls in similar classes in widely separated areas of the United States.

The similarity between the writing of my boys and girls and that of other sixth graders was demonstrated in the length of their compositions as indicated by the average number of words per composition (156.8 words), the average number of sentences per composition (14 sentences), and the average number of words per sentence (11.99 words). It was demonstrated in the maturity of their writing as reflected in the amount of subordina-

tion (36 per cent of their sentences being complex or compound-complex—28.6 per cent of their clauses being dependent). It was also evident in the kind of subordination (50.5 per cent of their dependent clauses being adverbial; 33.9 per cent, noun; and 15.6 per cent, adjective). The results of my study compared very favorably, in all these areas, with studies of sixth grade writing as analyzed by Heider and Heider,¹ Bear,² Hoppes,³ LaBrant,⁴ and Stormzand and O'Shea.⁵

To conduct research in my own classroom in a relatively isolated area of the country and to find that the results when tabulated agreed fundamentally with those of other investigators reported in the *Encyclopedia of Educational Research* and in a number of psychological monographs gave me a feeling of belonging to a highly skilled profession. Curriculum research began to hold for me a new significance and meaning.

Implications for Teaching

What insights did I develop during my work? What generalizations could I draw from my study?

I learned that sixth grade children who are free to determine the length

of their own compositions, average approximately 150 words per composition. What implications does this finding have for teaching? Surely it is indicative of the amount of written material most sixth graders feel comfortable in attempting at one time. It indicates the great injustice done children when we assign them compositions from five hundred to one thousand words in length. Indeed, when I realized the great natural range in length—from twenty words to 839 in this one class—I began to recognize the ineffectiveness of any arbitrary assignment with regard to length since such an assignment probably limits some children and encourages other children to pad their writing.

I learned that children use every grammatical construction employed by adults. The structural difference between the writing of children and the writing of adults is not that children do not use the same constructions but only that they use the more mature constructions less frequently. I learned that length of sentence and ability to subordinate ideas are fairly reliable maturational indexes of language growth. I learned that, though mature writing has a longer average sentence length than immature writing, the best writing contains a nice balance between the two.

When I turned my attention to attributes of quality which I had listed, I found all twelve had been used effectively in the writing of these thirty-six sixth grade students. The children, I concluded, not only used the same sentence structure as adults but also employed the same linguistic and rhetorical attributes to make their communi-

¹ F. K. Heider and G. M. Heider, "A Comparison of Sentence Structure of Deaf and Hearing Children," *Psychology Monographs* 52:42-103, No. 1, 1940.

² Mata V. Bear, "Children's Growth in the Use of Written Language," *Elementary English Review*, 16:312-19, December 1939.

³ William C. Hoppes, "Some Aspects of Growth in Written Expression," *Elementary English Review*, 10:121-23, May 1933.

⁴ Lou LaBrant, "A Study of Certain Language Developments of Children in Grades Four to Twelve, Inclusive," *Genetic Psychology Monographs*, 14:387-449, November 1933.

⁵ Martin J. Stormzand and M. V. O'Shea, *How Much English Grammar?* Baltimore: Warwick and York, Inc., 1924. 224 p.

cations effective. However, the extent to which they used the attributes of quality which I had employed as criteria and the skill with which they used them varied considerably, showing, as Smith so aptly says, that language development is a "sort of spiral growth broadening, extending, and redefining what is there and in use, for the most part, from infancy on."⁴

What qualities were characteristic of the writing done by these eleven- and twelve-year-olds? My study indicated that enumeration (the listing of ideas in order without elaboration), extensive use of time sequence, and the drawing of simple and obvious generalizations were characteristic of much of the writing done by this sixth grade group. On the other hand, frequent use of comparisons, inverted and unusual sentence order, unique and colorful expressions, the establishment of mood or atmosphere, repetition for emphasis, and validation of statements were characteristic only of the writing of the more mature students in the group.

My findings regarding the children's growth in written expression from September to May differed greatly from my expectations. I had expected to find a steady growth in the quality and maturity of each child's writing. When I found that, in many cases, the last composition written in the spring was actually and measurably no better than the first one written in the fall, I was violently disturbed. I began to question, first, the validity of my findings and,

second, the efficacy of my instruction. I wondered—had I taught all year for naught? More thoughtful appraisal of the findings convinced me, first, that children's growth in written language is slow—so slow that in many cases it cannot be accurately measured in a year's time; and, second, that in language as in other areas, children do not grow in a straight upward line. They have peaks, depressions, and plateaus. Growth is sporadic rather than steady and constant; moreover, vitality, refinement, and maturity of expression bear a direct relationship to the situation and subject which stimulate children to write.

My study convinced me of the value of a positive, experiential approach to the language arts with greater emphasis on the cultivation of attributes characteristic of quality. To tell a child to write longer sentences or to subordinate is of virtually no value. To tell him to use fewer "and's" does not get to the root of his difficulty. If he follows such advice, he may write many short choppy sentences which would be practically as bad as his long, strung-on ones. So long as the child feels the relationships between his ideas are equal, he can see no reason either for eliminating "and" or for substituting other connectives. On the other hand, to help students, through question and discussion, to see relationships among ideas is a positive achievement which results in greater understanding and hence in language growth. To encourage students to write on topics with which they are thoroughly familiar and about which they feel deeply is another positive approach to language growth, for only when the child understands relationships thor-

⁴ Dora V. Smith, "Growth in Language Power as Related to Child Development," *Teaching Language in the Elementary School*, (National Society for the Study of Education, Forty-Third Yearbook, Part II, Chicago: University of Chicago Press, 1944), p. 92.

oughly is he able to express them adequately. Questions appropriate to each child's writing, such as—"When did it happen?" "How do you think Jim felt?" "What would you have done if you had been Jim?" or "Why do you think Jim did what he did?"—may free children to react to the situation and to identify more closely with it. The result in writing is greater elaboration and consequently more subordination. As LaBrant says:

"If a child writes about matters which are vivid to him, he is certain to have a demand for sentences which clarify relationships and we can consequently expect abundant use of dependent clauses. . . . Therefore language development is best accomplished through a purely functional approach in which expression follows experience in purposeful activity."⁷

Baldrige is expressing the same philosophy when she says tersely: "The key to language growth is enriched experience . . . for language grows as general knowledge grows."⁸

Another important aspect of teaching pointed up by the study pertains to individual differences. My research made the differences in ability of these thirty-six children stand out as no other procedure could have done. One child's compositions for the year averaged seventy words in length; another child's averaged 286 words in length. One child's average sentence length was 9.6 while another's average sentence length

was 14.9. One child's subordination index, ratio of dependent clauses to total clauses, was eleven while another's was thirty-nine. Some compositions were meager in idea, trite in expression, and devoid of vitality and feeling. Others showed keen observation, clear-cut organization, lively imagination, and spontaneity and aptness of expression. Certainly, such a spread in ability pointed up the absolute necessity for an individualized program if the teaching in language arts is to be efficacious. By the same token it revealed the ineffectiveness and great injustice of trying to impose one set standard of mastery upon all children at any one specific grade level.

The Teacher and Research

I cannot help but feel that this study in which I actually attempted to solve some of my curricular problems through research has been one of the most satisfying experiences in my whole teaching career. In the first place, it taught me to be systematic and thorough in my collection and analysis of evidence. Throughout I felt I was engaged in something vital. My research began in the classroom and concerned some of the real problems I faced in teaching language arts. I gained new insights into effective procedures for helping children and for improving classroom teaching. I learned a great deal about how children grow in their written expression. Finally, my study led me to believe that teachers can gain greater insight into children's growth and behavior and consequently develop superior school programs if they take time to analyze their students' work in definitive fashion.

⁷ Lou LaBrant, "The Changing Sentence Structure of Children," *Elementary English Review*, 11:65, March 1934.

⁸ Marie Baldrige, "Three Decades of Language Study," *Childhood Education*, 26:119-121, November 1949.

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