To provide data for examining the variables that distinguish effective writers from ineffective ones, 1821 mid-west 10th-grade students wrote three themes at 3-week intervals. From a first reading of these papers, the sets of three themes from 432 pupils, which were judged strong or weak in effective writing, were submitted to four judges for further evaluation. Students in the final groups of 124 effective and 127 ineffective writers were asked to fill out questionnaires of 68 items on their family and personal lives. Scholastic aptitude and academic status were also taken into account. Results indicated that (1) effective writers had parents with more formal education and lived in homes of higher socioeconomic status than ineffective writers; (2) effective writers were more likely to be female, younger, college-oriented, widely-read, and willing to write about their personalities and self-concepts than were ineffective writers; (3) effective writers engaged in music activities and favored academic courses while ineffective writers preferred vocational courses and liked English class least of all; (4) effective writers owned more books, wrote more for personal pleasure, and disliked grammar study more than ineffective writers; (5) writing effectiveness correlated with scholastic aptitude and academic status. (LH)
VARIABLES DISTINGUISHING BETWEEN EFFECTIVE AND INEFFECTIVE WRITERS IN THE TENTH GRADE

KENNETH L. DONELSON
Arizona State University

WHILE THE teaching of composition is assumed to be both good and necessary for the English classroom, little research has been done to aid the English teacher in determining what is the best sequence of composition principles, what is the best method for what kinds of papers, or what is the best evaluation technique for what kinds of teachers. Many reasons may contribute to the lack of knowledge about composition, but one reason may be that little attention has been paid to the factors which make up the effective or the ineffective writer. True, there are the pedagogical cliches about the effective writer—th well student is more likely to be a girl, that she is brighter than the average, that she comes from a favored home, that she reads more widely and more often than the average, and that she is college-oriented. But few investigations have made any effort to search for many of the variables that separate the effective from the ineffective writer. Research recently completed by the author may suggest some variables for present consideration and future research.

RELATED RESEARCH

Although the reader can find numerous articles on composition, little will be found which suggests or establishes such variables. Stahmker (5: 536) using the 1940 English Examination of the College Board Tests found that girls performed at a level superior to boys. Davidson and Balducci (1: 480) matched 40 subjects for age, intelligence, and personality adjustment and used three Rorschach tests to determine verbal facility. They found no significant differences for sex or economic level, though the authors noted that tests, while not statistically significant, did suggest that boys were superior to girls and the upper economic level superior to the lower. The most thorough study of such variables was made by Schonell (4) although the study was largely restricted to school subjects. Thus, the only variables that have been investigated are sex, socio-economic status, intelligence, grades in English and other school courses, reading, and various English skills. No really general investigation has been made.

METHODOLOGY

The procedure of the investigation followed these steps. Permission to use high school students was first obtained from administrators of two large public high schools and one large parochial high school in a midwestern city (approximate population, 100,000). English teachers in these three schools were surveyed, and, with two exceptions, agreed to participate in the experiment. The author, in consultation with authorities in the teaching of English on both college and secondary levels, decided to use one grade to reduce the problem of the age variable. The tenth grade was chosen, for this grade seemed more likely to be typical of the native condition of adolescent writing effectiveness or ineffectiveness, being yet less influenced by high school English instruction.

At the beginning of the experiment, 1937 tenth graders were available; of these 116 were excused from further participation because they did not write all the papers or because they dropped from school. The final population for the study was 1821 tenth grade students. A sampling procedure for the population was determined. Three methods were possible. 1. Using random numbers, approximately 400 students could have been selected, their themes could have then been submitted to judges, and, after ratings, the judges could have established a top group (effective) and bottom group (ineffective). Unfortunately, a large number of papers would have fallen into the
middle group, thus reducing the size of either extreme group and making data analysis suspect because of the small number involved. Hence, this approach was abandoned. 2. Using all 1821 writers, three themes from each, judges could have been asked to rate each of the 1821 times three themes (5463 papers) and a top and bottom group established. But the rating of 5463 papers seemed a human impossibility, and thus this plan was dropped. 3. Using one reader (the author) to eliminate a sizable portion of the papers not likely to be placed at either end of the writing continuum, judges could be asked to rate papers of something better than 400 students. Although subjectivity was obvious in the final sample, this judgmental sampling technique was chosen since it would leave the greatest number of students at the ends of the writing continuum for the judges' ratings. No claim can be made that the sampling device chosen is the best technique, only that it was the most feasible for this experiment.

Having determined the sampling procedure, the author then asked the teachers of the 1821 tenth grade students to give class time for three themes, at approximately three week intervals. Diederich's (2: 385-595) eight rules for writing experiments were adhered to in this investigation; that at least two essays on different topics were needed if a reliable means of writing skills was to be found; that topics be within the student's comprehension; that all students write on the same topics; that all papers be written in class; that sufficient time be allowed for writing, revising, and rewriting; that time for writing must not be cluttered with other matters; that papers be marked in accordance with criteria evolved beforehand; and that all papers be marked by at least two readers.

A set of rules was given to teachers involved asking that themes be written in class, that topics remain unaltered (except for brief explanations to slow classes), that dictionaries be allowed, and that teachers were to leave the papers unmarked.

The three theme topics were of different natures. The first was narrative, the students being asked to use the following sentences as a springboard: "When I remember what happened, I can laugh now. But it wasn't funny then." The second was expository, the students being asked to assume that it was late in August, a visiting friend was ready to leave for home, and one day remained to capture the visit; the problem was to make a choice of several activities (students were allowed to choose one of their own if they wished) and then explain and defend that choice. The third theme, by far the most difficult, forced students to apply critical reasoning to a mimeographed letter from a President of a large midwestern chainstore to his employees lamenting the recent disastrous strike and urging his employees not to be so foolhardy again. Students were asked to react to the letter (certain specific questions were given and suggestions made on further possible ideas they might entertain) and then write an argumentative paper.

Each of the 1821 first themes was then read twice and rated twice by the author, for content, organization, style, diction, mechanics, all the traits which make writing an entity. Rating was done by placing themes in one of three piles, relatively effective, relatively average, or relatively ineffective. The same procedure was followed for themes two and three. All themes in all piles were then reread. Mean ratings of all three themes were calculated, and only those students with two of the three themes in one or the other of the writing extremes were retained for final reading and rating by the judges. While no attempt was made to keep the size of the top or bottom groups equal, there were 214 students with at least two of the three themes in the relatively effective pile, and 218 students with two of the three themes in the relatively ineffective pile. No attempt was made to maintain an equal number of boys or girls in either group. The reader will likely not be surprised that more girls than boys were in the effective group, more boys than girls in the ineffective group. Consequently, the reader is warned that there is a sex bias in the final analysis.

Four judges, qualified by experience and reputation in teaching high school composition, agreed to rate the 432 sets of three themes. After agreeing on standards of writing they would expect of effective communication, the judges were given the papers. Writers were assigned random numbers to minimize the possibility of giving one judge consecutive themes from one or the other extreme of written performance. Each set of 432 themes was divided into four packets. Each judge was asked to rate themes on a one to nine point scale in the following manner. The judge was to read each theme twice and then assign it to one of three piles, effective, average, or ineffective. After the completion of a packet, the judge was then to reread the effective pile once more and place each of the papers in three new piles, highly effective, effective, and somewhat less effective. Similarly, the average and the relatively ineffective papers were to be reread and repiled. The final rating of the themes then would produce a one to nine point scale. A rating sheet accompanied each set of 432 themes. Judges were asked to write the point values opposite the number of the theme and not to write on any paper.

Each judge having completed one packet of Theme I was then assigned a different packet of Theme I; hence, each student was rated twice for Theme I. Packets of Theme II and III followed the same procedure. Rotation of the packets assured the reading of each writer's work by every rater, six ratings in all for the three themes. Pearson product moment correlation coefficients were calculated for the ratings. In Table I, the capital letters indicate the
TABLE I
CORRELATIONS AMONG JUDGES IN THEME RATING

<table>
<thead>
<tr>
<th>Theme I</th>
<th>Theme II</th>
<th>Theme III</th>
</tr>
</thead>
<tbody>
<tr>
<td>AB^1</td>
<td>BA^2</td>
<td>AC^3</td>
</tr>
<tr>
<td>0.93</td>
<td>0.86</td>
<td>0.75</td>
</tr>
<tr>
<td>BD^4</td>
<td>AC^4</td>
<td>BA^1</td>
</tr>
<tr>
<td>0.65</td>
<td>0.86</td>
<td>0.84</td>
</tr>
<tr>
<td>CB^3</td>
<td>DC^4</td>
<td>CB^1</td>
</tr>
<tr>
<td>0.78</td>
<td>0.86</td>
<td>0.88</td>
</tr>
<tr>
<td>DA^2</td>
<td>CD^2</td>
<td>DB^3</td>
</tr>
<tr>
<td>0.85</td>
<td>0.83</td>
<td>0.82</td>
</tr>
</tbody>
</table>

judges, the superscript numbers the number of the packet for the themes. Using the z-transformation suggested by Guilford (3: 355-356, 616) mean correlations for each set of correlations was determined - Theme I .87, Theme II .80, and Theme III .84. The mean correlation for all correlations was .84. Only one of these correlations, the rating correlation for readers B and D for Theme I, packet four, was less than the .67 suggested by Diederich (2: 569) as the lower limit of acceptability. Hence, some faith may be placed in the ability of the four experienced teachers to agree on what is effective writing and to rate papers according to that agreement.

From the table above, it is apparent that Theme II had the least agreement among readers. Hence, the author decided to use a random sample of papers from Theme II as a test of reader reliability in rereading. Seventy-five papers were returned to three of the judges (Judge D was no longer in the country) approximately ten weeks after the first reading. The correlation of rereading suggested a high degree of reading reliability; Judge A (packet three of Theme II). 71; Judge B (packet four of Theme II). 72; and Judge C (packet 1 of Theme II). 76.

After the ratings had been determined, a mean rating of all six ratings was calculated for each writer. The final group of ineffective writers, 127 students, was determined by choosing those writers who had a mean rating of 3.0 or less (3.0 down representing degrees of ineffectiveness). Using the same principle, that of assigning to the effective group those students with rating of 7.0 to 9.0 produced only 90 writers. This group was supplementated with these writers who had at least four of the six ratings of 7.0 to 9.0, thus resulting in a final effective group of 124. The need to supplement the effective group may suggest what teachers of English know from experience, that it is easier to agree on what constitutes poor writing than good writing.

Data were obtained for the two groups of 124 effective writers and 127 ineffective writers. Each student was given a lengthy questionnaire of 68 items relating to: 1) father's job, education, reading, and free-time activities, 2) mother's job, education, reading, and free-time activities, 3) home environmental factors of home ownership, languages spoken in the home, number and kind of books in the home, magazines subscribed to, TV watched, and family recreation, 4) personal data, right or left handedness, dating, part-time jobs, hobbies, free-time activities, college and vocational plans, 5) interest in school activities and classes, classes liked and disliked, languages studied, grade retention or advancement, and 6) English class activities liked and disliked, books owned and read, parts of newspapers read, topics liked and disliked in composition, and attitudes toward English. While questionnaires are open to attack -- ambiguity of answers, lack of honesty -- the questionnaire still helps to uncover information otherwise most difficult to find. Additionally, students were encouraged to write as much or as little as they wished, were guaranteed an interested and impartial reader, and were assured that no information would get back to teachers (questionnaires were sealed and returned to the author). The number of lengthy answers attacking English teaching and school in general at least suggests that many students gave honest replies.

The Iowa Tests of Educational Development scores were used, notably the scores for Test 3 (Correctness of Appropriateness of Expression), Test 7 (Ability to Interpret Literary Materials), Test 8 (General Vocabulary) and Test 9 (Use of Sources of Information).

The Otis Self-Administering Test of Mental Ability, Higher Examination is given to all ninth grade pupils in the schools involved and the score from this test was used.

The academic records of the students were consulted and three averages were calculated: 1) a grade point average for seventh and eighth grade English courses; 2) a grade point average for ninth and first semester tenth grade English courses; and 3) a general grade point average for ninth and first semester courses. Grade points were calculated with A being equal to 4.0.

The function of the analysis of all data was to discover what variables differentiated between the dichotomous group of effective and ineffective writers. The statistical tools most appropriate were 1) the chi square statistic, used to test the null hypotheses that the observed frequencies for the various questionnaire responses did not depart significantly from the theoretical frequencies expected had there been...
no relationship between response and writing ability; 2) the phi coefficient developed from $2 \times 2$ chi square tables as an index of correlation; 3) the C coefficient developed from chi square tables larger than $2 \times 2$ as an index of correlation; and 4) the point biserial correlation statistic for genuinely dichotomous groups, with the F-test for significance. Arbitrarily, the level for significance for testing all statistics was determined as .01.

DESCRIPTION OF THE DATA

The treatment given to the data led to five analyses: the relation of the dichotomous criterion to selected measures of 1) parents, home, and family, 2) student personal data, 3) school activities and classes, 4) English class activities and attitudes, and 5) scholastic aptitudes and academic status. No attempt will be made to list all those factors which proved to be non-discriminating, only those few which seemed significant in that they were at odds with the usual English teacher assumption.

1. Parents, Home, and Family.

Variables which proved to be discriminating at the .01 level of significance were the father's education ($C = .38$), father's present occupation ($C = .38$), father's reading ($C = .28$), mother's education ($C = .36$), mother's reading of a foreign language ($C = .27$), number of magazines in the home ($C = .38$), and the kind of phonograph records in the home ($C = .26$). Though no causality can be determined from the use of $x^2$ of correlation without reference to the materials from which the data were drawn, certain qualified inferences might be made. Apparently, parental education was significant, the greater amount of formal education being found in parents of effective writers. Similarly, the socioeconomic status (father's occupation, magazines read, kinds of records found) of the effective group would appear to be higher.

2. Student Personal Data

Discriminating variables proved to be sex ($C = -.53$), age ($C = .30$), grade retention ($C = -.28$), enjoyment of working with hand tools ($C = -.23$), and college plans ($C = .54$). Guarded inferences from these data might be that girls appeared more likely (in high school at least) to be effective writers, that age was a factor in that ineffective writers were more likely to have been retained a grade, and that interest and plans in vocations was a factor, effective writers being more likely to be interested in college centered vocations. Though not amenable to statistics, answers to certain open-ended questions suggested that effective writers read more widely and more frequently, and that effective writers were willing and able to write more about their personalities and had more flattering self-concepts (the effective writers listed more personality virtues and the ineffective writers, more ambiguous responses).

3. School Activities and Classes.

Significant variables were activities enjoyed in participation ($C = .34$), activities enjoyed watching ($C = .29$), typewriters owned and used in classwork ($C = .29$), favorite classes ($C = .45$), least liked classes ($C = .38$), and foreign languages studied ($C = .57$). The data suggested that the effective group enjoyed participating more in musical activities (probably the sex bias already mentioned) while the ineffective group often listed none of the choices, perhaps indicating that they felt themselves to be outside of school in general. The effective group in listing its favorite classes chose more academically oriented classes, the ineffective group, vocational classes. Perhaps most significant was that English was the least liked class by the ineffective writers.

4. English Class Activities and Attitudes

Variables which proved discriminating were books owned by students ($C = .23$), attitude toward writing in class ($C = .25$), writing published by students ($C = .31$), frequency of nonassigned writing ($C = .29$), letter writing habits ($C = .34$), and English class activities least preferred ($C = .27$). Again, the sex bias would enter, girls presumably more likely to write letters or compose for enjoyment. The data suggested that effective writers owned more books, and that effective writers were more likely to write for personal pleasure. Strangely enough, one significant variable was the activity least preferred in English, the effective group feeling less fondness for the study of grammar or mechanics than the ineffective group. Two non-significant variables of interest were the lack of significance of the amount of reading done and lack of significance of the activities preferred in English class among reading, writing, speech, and grammar.

5. Scholastic Aptitudes and Academic Status.

As might be guessed by the reader, measures of intelligence aptitudes and academic status proved significant, the Otis IQ ($r_{pib} = .68$); ITED Test 3 "Correctness" ($r_{pib} = .79$); ITED Test 7 "Literary Materials" ($r_{pib} = .70$); ITED Test 8 "Vocabulary" ($r_{pib} = .71$); ITED Test 9 "Sources of Information" ($r_{pib} = .78$); GPA for seventh and eighth grade English ($r_{pib} = .82$); GPA for ninth and tenth grade English ($r_{pib} = .77$); and GPA for all classes ninth and tenth grade ($r_{pib} = .78$).
CONCLUSIONS

Since this experiment was conducted in only one area of the midwest with a limited sample and with a degree of subjectivity early introduced, the conclusions can only be tentative. Still, certain repetitions of data suggested that the effective writer was likely to be female, brighter than average, living in a favored home, a reader, and fond of English class and school in general. Further research is needed, especially that which keeps the factors of sex, intelligence, and socio-economic status constant. Finally, such research would do well to delve into the psychological make-up and personality of the participants. Clearly, if we are to know what we can give our students to make them better writers, we must know what factors make up the effective or the ineffective writer.

REFERENCES


5. Stalcaker, John M., "Sex Differences in the Ability to Write", School and Society, LIV (December 6, 1941), pp. 532-535.