

# GRAPHOLOGY NEEDS MORE GOOD RESEARCH

by Leslie W. King

From 1927 through 1968 Psychology Abstracts carried graphology and handwriting as subject titles in its index. Both have been dropped since then along with apparent research interest. Of approximately 2000 studies abstracted monthly from all over the world, an average of less than one per two months has been concerned with graphology in the past decade. It is a strange commentary that, as potential funding and/or prestige in connection with the research subject was removed from the academic world, the industrial world took an increasing interest in its use as a tool for personnel selection. I contend that poor research methods and designs were in part responsible for invalidating graphology. Also that selective reporting on existing research in the literature about graphology has biased potential investigators negatively.

Since early 1900's some research has appeared repeatedly in the literature about graphology, seemingly culled to invalidate the science. Some continue to be listed in bibliographies to the exclusion of more worthwhile investigations.

Psychiatrists, medical doctors, and psychologists have all experimented with graphology since the turn of the century. While psychiatrists and doctors often favor graphology, psychologists have been largely unfavorable. There are many unanswered questions regarding the methods used. My study on the subject seems to point to poor research designs and methods, especially the use of untrained personnel to make graphological judgments.

Warren Middleton made a series of seven experimental studies, all using untrained individuals to perform graphological evaluations. Middleton himself said regarding these experiments in 1939: "This does not mean that professional graphologists or amateurs, who have made a serious study of handwriting analysis could not exceed chance expectations in their judgments." Unfortunately when this study is mentioned in literature about validating graphology, this quote from Middleton is often eliminated. He tested the ability of untrained individuals to graphologically determine sex, age, dominance, neuroticism, self confidence, sociability and intelligence from the writing. Of all seven studies, only neuroticism was judged with more accuracy than chance would indicate. When these studies are cited, no author remarks that several graphological premises were violated:

- a. Untrained judges were used to analyze the writings.
- b. The subject matter of the writing was dictated.
- c. Only one sentence of writing was used on which to make a judgment.
- d. Writing was exhibited to the judges by use of an opaque projector.
- e. The analyses of the writings were correlated with the Bernreuter Personality Inventory.

Age, sex and handedness have long been considered physical factors which graphology cannot determine exactly. Apparently Alfred Binet was one of the first to experiment with the de-

Leslie King is a graduate of three graphology schools, is a teacher, lecturer, writer, research graphologist, personnel analyst and Questioned Documents Examiner. Owner of Handwriting Consultants of Utah, she has a correspondence course which uses her own "Graphology Handbook for Tyros and Pros." She had taught graphology at the University of Utah and the Salt Lake City Community School Program. She is a member of both AAHA and AHAF.



termination of a writer's gender. Binet, you will recall, also developed the test for determining I.Q. used in the academic world.

In testing Binet used professional graphologists for evaluation. Intelligence and criminality were among several areas tested. The results showed correlations in the high .80's and .90's for intelligence and honesty, but correlations for gender of the writer were in the low .70's. Psychologists usually cite the gender result only when stating evidence there is no validity to graphology. None of the psychologists who duplicated Binet's experiments, however, used graphologists, although Binet used seven professionals, among whom was Crepiex-Jamin.

It is my contention that a deeper understanding of graphology principals is essential if psychologists are to do meaningful research in the field. An alternative to full knowledge of graphology by psychologists is to employ professional graphologists as co-investigators. Another alternative is for graphologists to familiarize themselves with research techniques and to produce carefully controlled studies. This means a tightening of methods and attention to predictive areas of the technique.

There are two main kinds of research: hypothesis and correlation. Testing a formal theory that has a large body of information and general acceptance is the hypothesis type. An alternative hypothesis is to test a specific hypothesis not usually related to formal theories. Graphology would fall under this latter type. This type of hypothesis often reflects the investigator's ideas about data he has gathered and that he desires to check out. Hypothesis testing predicts in advance what the outcome will be, either positive or "null" hypothesis.

Correlation research merely correlates suspected relationships between two or more variables. The difference is whether the experimenter "does" something to a subject or a situation to see what will happen, or whether he "takes" what comes and correlates his findings.

In any experiment it is necessary that all subjects be selected for their similarity on as many variables as possible. These may be age, sex, socio-economic level, filial position in the family, ethnic background, education, profession, etc. Subjects are then separated into two or more groups, one a control group, the other(s) the experimental or treatment group.

For this to give strong experimental results, subjects have to be randomly assigned to the groups and all subjects must be matched in as many personal details as possible. In some cases

(Continued on page 19)



## **MORE GOOD RESEARCH** *(Continued from page 11)*

merely comparing a group of women to a group of men will contaminate the results.

This happened when I compared the self esteem of twenty housewives with the self esteem of twenty criminals. The result of the error indicated that women can have a lower self esteem than men and not get into trouble, or, the fact that they are housewives, provided for by their husbands, protects them from getting into criminal type of trouble.

Unless random assignment is correctly made, there exists a chance of "experimenter bias". For instance, this might be if an experimenter were to assign subjects to a shock/no shock experiment. He might subjectively select those who appear to be able to withstand shock for the shock experiment. Another situation might be where the experimenter unconsciously responds to his personal liking or disliking for his subjects.

## TO UNDERTAKE A RESEARCH PROJECT

### I. THE PROBLEM

State the problem concretely and explicitly. Why are you investigating this subject? How important is its solution to you the investigator and to the public, the field of science involved?

Through firsthand observation, learn as much as possible about the subject. Study the existing literature. Discuss with others who have accumulated a degree of practical experience in the line of study you are interested in. Check out past experiments and the reports of research projects along this same subject.

### II. FORMULATE THE HYPOTHESIS

The role of the hypothesis in scientific research is to suggest explanations for certain facts and to guide the investigation for new facts. The function of the hypothesis is to direct the search for order among those facts.

The hypothesis may assert that "so-and-so is true under such-and-such set of circumstances". This could have to do with the frequency something occurs or of some association of outside variables. It may also state that something occurs a given number of times, or that it must be accompanied by another set of circumstances in order to be valid or true.

Findings which are relevant to your subject and have been discovered previously should be mentioned in your report at this point.

### III. DEFINE THE CONCEPT

A concept is an abstraction from observed events. It is wise to define the concept of your study in general terms and also in terms of the operations by which they will be presented in this study.

Data should be organized to show the relationships among the concepts. Establish a working group of definitions among the ideas, showing specifically how you are planning to use ideas, words, phrases throughout your report.

### IV. VARIABLES

This area of research planning is most important. Identify and define each variable so that it has the least amount of latitude possible. This may require a great amount of ingenuity to develop a group of variables that are practical, practicable, effective and worthwhile.

Plan your study to relate to existing work on as many points as possible. They should be related to findings from other research projects along the same lines. Quote your sources. It is important to know your field of study thoroughly.

### V. RESEARCH DESIGN

A research design is a systematic arrangement of conditions and data which makes the best use of time, energy, and information. While designs differ according to your purpose, the purpose, the four broad categories are:

Exploratory: to gain familiarity with some phase of the subject, gain new insights which may often lead to the hypothesis or toward developing a more precise research project.

Defining more accurate design: which clarifies your thinking on some particular part of your subject.

Frequency: to determine how often something occurs or the frequency with which something is associated with something else.

Testing the hypothesis: Testing the relationship between variables requiring procedures that reduce bias and increase reliability.

Stating the kind of study you are undertaking often helps you to decide on your procedure.

### VI. METHODOLOGY—Data Collection

Data should be complete enough that it can be reproduced and conclusions reached that are not ambiguous nor inadequate. It should be clear that your methods and data collection are full enough to do the job fully.

#### a. Sample and population definition

Population: the total of all possible observations . . . such as "all the possible left handed writers in the U.S."

Sample: the data or observations available to the researcher, the number of writing samples of left handed writers.

Stratum: The specific characteristics that divide your population into mutually exclusive segments, such as the left handed writers living in the U.S. who are women and who write with a left slant.

Element: Is a single member of the population. When an element (or elements) is selected with the intention of discovering something about the whole population from which it is taken, it may then become a sampling.

#### b. State clearly: Who is included in the sample

How are they selected

Why is this sample used

What weaknesses in the sampling procedure or the qualifications.

#### c. Research design: What kind of study (refer to above paragraphs on research design) is involved.

How were data collection procedures carried out?

Were control groups used? How?

#### d. Instruments used in data collection. Be sure to include in your index or appendix any forms you used to collect your data.

#### e. Variables: Define exactly how you used your variables and what you discovered.

### VII. CONCLUSIONS AND INTERPRETATION

If your original hypothesis is supported by your findings, what are the broad implications. If not supported, you will still need to state what the results show. To whom do these findings apply? The world at large? Your science only? A specialized segment?

You may want to suggest further test factors which could change with another study along certain lines but with some changes.

Could you find an alternative explanation for the findings your study revealed? You may also want to offer an explanation as to why two variables you expected to be related were found to have no relationship.

Obviously using a neat pattern for reporting does not make the research activity any easier. It takes patience, hard work and a dedicated persistence in ferreting out your information. There isn't much purpose in conducting research unless you plan to share it with those who are most interested, your co-graphologists. COGS Journal is ready to publish any valid research project.