by Martha Rashid

edited by Lois Andreasen

Presented at the CORD Meetings, June 14, 1973, Duke University

The employment of the scientific process to gain additional insight into a particular problem beyond the ordinary inquiry of the problem is commonly referred to as research. In fact, the term research can be substituted for scientific process. In general, research differs from other scholarly activities in regard to the methods and procedures under which the problem is studied and analyzed. Research further aims to enlarge the fields of knowlege already in existence. The researcher identifies a problem or an issue within his/her field of interest and then systematically undertakes to answer specific questions or hypotheses concerning the problem.

The scientific problem under consideration by the researcher must be a significant, well-defined problem as well as one that the researcher is totally involved in answering. This is a most important aspect of the research process because the identification and the statement of the problem directs all of the later activities of the inquiry. The statement of the problem is a roadmap of the territory under consideration.

Once the statement of the problem has been identified in clear, percise terms the researcher moves into the second phase of the research process, namely the proposal of the hypothesis or hypotheses. An hypothesis is a guess that the researcher makes about the problem and it provides a basis for the research, therefore it is a vital aspect of the entire study regardless of the type of research being undertaken. A hypothesis is generally a statement of expected relationships among the variables. Whether the hypothesis is accepted or rejected should not be the prime objective of the researcher. Statistically significant results are not necessary to add knowledge to our existing knowledge; statistically insignificant results also add to our knowledge. The hypothesis may be viewed as an "if . . . then . . ." type of relationship. If certain conditions prevail, then certain other things will result.

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Following the statement of the problem and the proposal of hypotheses, the researcher selects a research design that is appropriate to the study of the problem. The research design is the pattern or activity which is chosen to test the hypotheses. The designs may vary widely within the various types of research and within the particular situation. Upon the decision of the appropriate design to be employed, instruments are selected to help gather the data. whether the instrument is an interview, a form of notation, a survey, or a questionnaire the answers that one receives about the problem are only as good as the instrument used. When using a questionnaire, for example, there are certain pit-falls with which the researcher must be familiar. A questionnaire should clearly state the intent and purpose of the activity and at the same time not ask leading questions so that the individual responding feels obligated to react in a certain way. Research is not a search for truth in the absolute sense. Rather it is an attempt to look at reality. Research "says" nothing, it may only imply a successive approximation to the truth or reality as indicated by the instrument selected.

After the data have been collected, the researcher analyzes the results in order to find meaning relevant to the topic under consideration. The data must be subjected to some form of organization and analysis, statistical or otherwise, to find information about the inquiry beyond raw empiricism. The data should not be just a collection of series or factual items: the whole purpose of research is to reorganize information into signi ficant forms or patterns. The conclusions drawn from the data only apply within the limitations of the research study undertaken. The researcner must be aware of the "Tomorrow the World" phenomena and not over generalize conclusions. Research is a willingness to query replity by following a set of procedures which are both replicable and generalizable. Replicable in the sense that someone else can get approximately the same results if he/she follows your procedures. Generalizable in that, if you have chosen your sample carefully, you can apply your results to the parent population, whatever that parent population may be.

There are certain "dangers" that the researcher must be aware of throughout his/her study. "Falling in love with your hypothesis" can inject a serious bias into the research. The use of volunteers and intact groups such as a formed class of students may endanger the objectivity of the research conclusions with systematic bias. The failure to designate clear hypotheses or a clear statement of the problem may lead to raw empiricism. Again, research is looking at reality to the best ability of the sincere researcher.

### Categories of Research

Historical research attempts to describe and reconstruct past events. The most important variable in historical research is time and you are attempting to reconstruct events in the context in which they occurred. You should not interpret results in a contemporary context, rather you should attempt to reconstruct an entire milieu in which these events occurred. The secondary and primary sources from which data are collected must be authenticated as to their validity and reliability. Historical research is very important to dance in that the past illuminates the present. This is only possible when the past is reconstructed as a total picture. An example of historical research is the recording of an outstanding person's life placed within the context of their work and contributions. Often in biographical research of this nature caution must be taken against permitting the personality of the individual to obscure the work that they have contributed to a particular field. It is important to know the person only to the point that it illuminates their contributions. For an example, many snide remarks have been made about Freud, however, a more valuable way to judge Freud is not in terms of his human frailties, but in terms of his monumental contributions to the psychology of human behavior. Biographical research should answer the question, "What relationship does the personality have to his/ her work?"

Descriptive research is an attempt to describe reality as it is right now. We rely heavily upon questionnaires, interviews, and surveys to collect the data being investigated whereas analytical research analyzes existing data. In analytical research, the researcher attempts to isolate certain aspects of existing data and to draw conclusions based upon these aspects.

Experimental research seeks to establish cause-effect relationships, that is, "if certain conditions are maintained, then certain things are going to happen." The independent or experimental variable will be the "if" part of the hypothesis and the variable which will be manipulated. The "then" part of the hypothesis indicates changes which have come about because of the experimental manipulation. Statistical techniques are then employed to analyze the data to see whether or not differences or changes have occurred because of the experimental situation.

#### Concluding Note

Research is the scientific method of finding answers to questions. The major objective of research is not to "prove" a position that you hold, but to investigate it.

# Work Session

At the conclusion of Doctor Rashid's presentation, "Methods and Procedures: Research Perspectives in Dance," the participants divided into small groups in order to propose problems in dance which may be suitable for in-depth research study. The following group objectives were established by Doctor Rashid in order to facilitate group organization and procedures:

- "Brain storm" to develop a list of problems in dance which you feel need to be investigated. At this point <u>don't</u> attempt to be critical or to evaluate the significance of the problem. Concentrate primarily on listing a series of problems.
- 2. From the problems you listed, select what you as a group feel are the five most important problems. Select these problems in respect only to their significance to research in dance; that is, in respect to their potential contribution to building a systematic fund of knowledge about dance. Do not be concerned at this point with how they are stated.
- 3. Take the five problems you listed as most significant and restate them as clearly and precisely as you can. It's not unusual to "restate" a problem several times in order to get acceptable clarity and precision.

The research problems which were stated by members of the various work session groups following Doctor Rashid's presentation are listed below. In considering these problems it is important to remember that there was very little time to redefine problems, to list them in order of importance or to discuss each one in detail. Members of the work session groups were asked to restate problems and to arrange them in respect to their significance to dance research. But time did not permit these latter tasks.

Therefore it is our intent that these problems be viewed only as the initial statements that they are. We urge CORD members to discuss them, to restate those which they consider most significant and to share whatever research efforts may ensue at future CORD meetings.

## Problems:

- 1. Investigate means by which dance can be made more understandable by the general community.
- 2. Development of an instrument for testing qualitative experiences in dance.
- 3. An investigation of the relationship and carry-over value of experiences in dance to other areas in the elementary curriculum.

- 4. A study of the effects of repeated experiences in movement forms to the cultural and philosophical frameworks in which individuals function.
- 5. The development of guidelines for professional programs in dance in academic institutions.
- 6. A study of the evolution of the cultural and social attitudes toward dance and their effect upon the current status of dance.
- 7. An investigation of the relationships between movement education and dance education.
- 8. The identification of physical traits as well as personality characteristics which appear to distinguish a superior dancer.
- 9. An inquiry into dance therapy--appropriateness of specific techniques for the handicapped.
- 10. The use of movement education as a means to enhance communicative skills and establish positive self-concepts among children.
- 11. An inquiry into the status of the male dancer and his recognition as an artist in society.
- 12. The development of a course in dance criticism.

## SELECTED REFERENCES

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