Techniques of Field Investigation and Laboratory Research Using the Dach-Syc Approach in Music and Theatre

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Abstract

This study examines techniques of field investigation and laboratory research using the DACH-SYC approach in the music and theatre fields of study. It examines the techniques of field investigation, the DACH-SYC techniques, and the laboratory research techniques. This study relied solely on oral tradition, written documents, personal oral interviews of information with different research scholars, and experiential knowledge in its approach and methodology. This study makes use of the published library and archive materials. The outcome of the research reveals the techniques of field investigation in research studies and fieldwork. The study discussed the importance of field investigation to research studies and discussed the main method of field investigation in the music and theatre fields of study known as DACH-SYC. It discusses the techniques of field investigation and research procedures for the study of music and theatre. The study also explains the role of computers in laboratory research. Lastly, the study established the various field techniques and approaches to the study of research work in our society. In conclusion, the

study claims that the techniques of field investigation are a powerful tool for academic research performance. Great academic researchers and great scholars cannot do without a systematic and unique approach to research study and field investigation in advanced knowledge. The study recommends some of the common investigative research methods, such as literature searches, communicating with people, focus group discussions, personal interviews, telephonic surveys, electronic mail surveys, mail surveys, and internet surveys.

Keynotes: Technique, Investigation, Field, Laboratory, Research

Introduction

Research is an investigation, especially a scientific study, to discover facts. According to the BBC (1992:986), research is work that involves studying something and trying to discover facts about it. So, if you research something, then you intend to discover facts about it. Oguniyi (1992:20), in support of this assertion, notes that research involves looking at or examining something in a very careful, objective, and exhaustive manner to develop valid knowledge or understanding of that thing. Research can be defined as finding out the truth about a thing, event, or situation. It is a careful study of a subject, especially to discover new facts or information about it. Field investigations are the systematic collection of data for the purposes of scientific understanding. They are designed to answer an investigative question through the collection of data and the communication of results. Students learn scientific inquiry skills. It is the study of any subject's traces of human culture through surveying, sampling, excavating, or removing surface or subsurface material, or going to a subject with that intent.

Field investigations involve the systematic collection of data for the purposes of scientific understanding. They are designed to answer an investigative question through the collection of evidence and the communication of results; they contribute to scientific knowledge by describing natural systems, noting differences in habitats, and identifying environmental trends and issues. In field investigations, students pose a research question and then plan and conduct an investigation to answer that question. Students use evidence to support explanations and build models, as well as to pose new questions about the things

under investigation. Research is beyond the laboratory or classroom. Field investigations help students become informed citizen scientists (researchers) who add knowledge to the community's understanding of an area to make issues of concern visible and share differing points of view about the preservation and use of the things or subjects under investigation.

Are all field investigations the same? No. For conceptual clarity, there are three types of field investigations—descriptive, comparative, and correlative. Descriptive field investigations involve describing and/or quantifying parts of a natural system or subject. Comparative field investigations involve collecting data on different populations, organisms, or subjects under different conditions (e.g., times of year, locations) to make a comparison. Correlative field investigations involve measuring or observing two variables and searching for a relationship. Each type of field investigation is guided by different types of investigative questions. Descriptive studies can lead to comparative studies, which can lead to correlative studies. These three types of studies are often used in combination to study the natural world or a given subject. Researchers use three types of investigations to research subjects and develop explanations for events in nature: descriptive investigation, comparative investigation, and experimental investigation. These include qualitative methods (i.e., textual analyses, interviewing, focus groups) as well as quantitative methods that lend themselves to statistical manipulations (i.e., content analysis, surveys, experiments).

Qualitative research makes use of several techniques, including interviews, focus groups, and observation. Interviews may be unstructured, with open-ended questions on a topic and the interviewer adapting to the responses. Structured interviews have a predetermined number of questions that every participant is asked. Moreover, there are three approaches to research: quantitative, qualitative, and mixed methods. Quantitative research is the collection and analysis of numerical data to describe, explain, predict, or control phenomena of interest or subject. The analysis of numerical data is complex and must be addressed systemically. Field investigation is research conducted in the real world or in a natural setting. It tends to observe, analyze, and describe what exists rather than manipulating a factor under study. The research settings resemble the situations

encountered in daily life, preserving the naturalness of the setting. Participants in field research may or may not know that they are being studied.

This write-up engaged in the study of Techniques of Field Investigation and Laboratory Research Using the DACH-SYC Approach in the Music and Theatre field of study with a focus on the following objectives:

1. Examine the techniques of field investigation.
2. Discuss the DACH-SYC techniques in the music and theatre fields of study, and
3. Discuss the laboratory research techniques.

Methodology

This study relied solely on oral tradition, written documents, personal oral interviews of information on the techniques of field investigation and laboratory research using the DACH-SYC approach in the music and theatre field of study, and experiential knowledge in its approach and methodology. This study makes use of published and unpublished library and archive materials. This involved reading through printed materials, which are relevant to this study in libraries and archives. Such materials include books, articles in journals, newspaper reports and documentation, dictionaries, and encyclopedias, among others. These materials were consulted, reviewed, and analyzed for testing and validating the position of this study.

Findings and Discussion

The analysis and discussion of the findings in this study are in line with the stated objectives of this study.

Objective 1: To Examine the Techniques of Field Investigation

Field investigation involves about a dozen different methods that can be used alone or together. These methods include:

1. Empirical Method: It means relying on experiment, observation, experience, or theory.
2. Sociological Method: Sociology is the study of societies on the subject matter.

3. Anthropology Method: It means the scientific study of the origin and development of the human race, e.g., Investigating the phenomenology of music and theatre as a discipline.
4. Ethnography Method: Ethnography is the description of the races of men. It is the study of the human race.

The ethnography method is also known as socio-anthropology. This method is used for research in museums, archives, and the origin of instruments and materials.

1. Archaeology and Archomusicology Method: Archaeology is the study of ancient things in their subject matter.
2. Oral Tradition.
3. Historiography Method

Sociological Method

The sociological method is used in the field investigation. Sociology is the study of societies. Moreover, five different types of methods fall under the sociological method. These methods include:

I. Comparative Method
II. Functionalism Method
III. Historical Method
IV. Statistical Method
V. Case Study

I Comparative Method:

Comparative means things that may be compared, i.e., notice, and point out the likeness and differences of things. Comparative is to discover a comparison of variance, character, or musical data. Data is a series of observations, measurements, facts, information, and conditions that might account for what is modifiable in social and musical instances.

The comparative method compares, analyzes, and separates essential from un-essential by applying the general role of induction (induction means general reference from a particular instance), logically to vary the circumstances of the phenomenon under investigation to eliminate the inessential and discover the

condition necessary to produce it. For instance, Nketia (1975) defines African music as the aggregate of an internal pattern, basic procedures, and similar contextual relationships. According to him:

A. Internal pattern includes the rhythm of different music, characters, or tribes.
B. Basic pattern deals with how the music or character starts. It may start with an ostinato rhythm in music, and other instruments may join. This basic pattern is the same for all tribes. This is inductive logic, i.e., an inductive pattern or method, which is what Nketia used in the research of African music.

C. Contextualization is the condition and circumstance of an event, fact, etc. African music in ethnic groups is used in the same or similar context. The occasion on which the music is used is similar. The music is contextualized. Likewise, the character in the play. Such occasions in music are ritual in most cases.

These three concepts (internal pattern, basic pattern, and contextualization) are the essential variables because they affect all ethnic groups in Africa. Essential variables are common to all ethnic groups. Inessential are the variables that are not general or common to all ethnic groups. It may be found in one ethnic group and not in another, e.g., Igbo music or drama, Yoruba music or drama, or Hausa music or drama. Inessential are the variables that are not common to all the ethnic groups of Africans. It is unique to a specific ethnic group. However, the inessential can bring about variations in the essential.

II. **The Functionalism Method**

Functionalism is a method of analysis and interpretation. It is also a method devoted to the study of social and phenomenal proceedings from the point of view of the function that a particular musical institution, drama, structure, or musical form serves in society or a given context.
The American school of thought refers to the functionalism method as a structural-functional method because of its emphasis on structure, whether social or musical. In other words, it looks at function in terms of structure.

III. Historical Method: This is the study of events, processes, and institutions of past civilizations to find the origins and antecedents of contemporary musical form or social life and thus understand its form, working, and function.

IV. Statistical Method: Statistics means numerical facts collected systematically and arranged. It is used to mathematically measure social phenomena and thus discover the relationship regarding their nature, or sociometric.

1. **Case Study:** It is the study of a condition institute or a group of communities. It is an examination from as many points of view as possible, e.g., life history, interview, etc., of the function that a particular musical institution, structure, or musical form serves in society or a given context.

Objective 2: To Discuss the DACH-SYC Techniques in the Music and Theatre Field of Study

The main method of field investigation in music and theatre is known as DACH-SYC. Dach-sync is an acronym word formed from the initial letters of other words used for research and investigation. The term can be analyzed and discussed as follows:

1. **D-Definite *&* Descriptive**

It means when you go to the field, the objective must be defined, i.e., state the contents, exactly, clearly, specifically, certainly, and describe them, i.e., give the details, the account of the kind, sort, and species of what you are going to collect on the field. This is what you see, collect, investigate, tell, hear, etc. The techniques to be used in the definite and descriptive are many, involving the following:

a. **Verbal:** The uses of verbal, i.e., mouth-to-mouth description. It also involves the use of language.
b. **Sound machine:** tape recorder
c. **Photographic Machine:** Camera or Film
d. **Audio-visual Machine:** Videotape, Video

e. Materials—musical instruments, dressing, and costumes—these are methods useful for field investigation. All these will show evidence of what you have seen in the field.

2. A-Analysis

This means the separation into its elements or components. Examine critically and determine the constituent parts, especially through chemical analysis. This can start immediately after the collection of data in the field. Data analysis can also take place in the laboratory for scientific proof. Analyze the field mentally. Analyzing critically is fault-finding, given to judging and passing judgment on the collected data. But note that if definite and descriptive are good, the analysis would be simple to carry out.

3. C-Comparative

Here, you notice or point out likenesses and differences between the things under investigation. You will compare the components of what you have analyzed (broken down with one another and with the entire whole).

4, H-Historical

The record of past events, public or private, of the existence of the data, i.e., where the thing comes from and how it was started, will be a point of investigation. Historical methods involve the following:

(a). Oral tradition

1. Iconographic
2. Archeologic
3. Archon-musicology
4. Archo-graphic
5. Documentation
6. Palaeography

(h)Historiography

(i) Investigation

All these are used as historiographical methods for finding facts on the topic.

5. Sy-Synthetical

It means the process of putting together or combining. Here, after you have defined the objective, described, analyzed, examined, and compared the individual objects as well as the components, you synthesize, i.e., you put all the components together. The basic pattern extended to the second pattern will now be put back together to reproduce the objects again. It involves putting the melody or the character together to form a whole.

1. **C-Critical:** It is fault finding, passing judgment on the collected materials. A critic is an appraisal, i.e., set a price on it, estimate its value, i.e., is it good or bad, and what are the criteria, i.e., the standard of judgment? DACH-SYC then found out why the field investigation was good or bad.

Objective 3: To Discuss Laboratory Research Techniques

Laboratory research is research conducted in a setting specifically designed for research. Laboratory research is often described as a tightly controlled investigation in which the researcher manipulates the particular factor under study to determine if such manipulation generates a change in the subjects. The subjects in laboratory research can be selected and placed in conditions more systematically, and they usually know that they are participating in a research study. The factor under study, known as the experimental variable or the independent variable, is the variable that a researcher manipulates. The measure of change is known as the criterion measure. It is also called the dependent variable, since the change is presumably dependent on the researcher's manipulation of the experimental variable.

Researchers often prefer the laboratory design to the field because of problems with the informed consent and privacy of the participants. Due to the greater control that researchers are generally able to exert in a laboratory setting than in a naturalistic setting, laboratory research studies are more likely to represent a true experimental design. Laboratory studies have the advantage of greater control over irrelevant variables that might otherwise influence the results and thus provide clearer clues about the behaviour being observed. If controlling all extraneous influences is accomplished, any change observed in the subjects is

presumed to be caused by the variable that has been manipulated. This approach comes close to establishing a cause-and-effect relationship.

Nevertheless, caution should be taken when considering such a relationship. There are always the possibilities that there was an uncontrolled outside influence and the likelihood that the results were caused by chance. Another advantage of laboratory research is its reproducibility. The environmental conditions can be neatly controlled and documented. Like any other research method, disadvantages can be encountered in laboratory research. It may represent an artificial environment that may influence how subjects behave and therefore alter results.

Laboratory research has to do with analyzing the data collected from the field investigation through the following techniques:

1. The laboratory is more advanced. It is done by computer
2. The computer is used for musical data.
3. It helps to know the photometric analysis of the musical composition of a performance.
4. The laboratory produces a graph book, which consists of (i) text, (ii) a pictograph, and (iii) a loudness graph.

Furthermore, the following are the various techniques of analysis used in laboratory research:

a. Statistical techniques and methods
b. Social survey technique: It is used to study the music, drama, or play of different cultures.
c. Sociometric: It measures attention and reports an in-depth study.
d. Case Study: It can be through history, documentary, interview, or participation technique.
e. Questionnaire and interview method or technique: It is a technique or method such as a social survey or case study.

How are field investigations different from controlled laboratory experiments? Classroom research often overemphasizes experimental investigation, in which students actively manipulate variables and control conditions. In studying the

natural world or subject, it is difficult to actively manipulate variables and maintain "control" and "experimental" groups, so field investigation researchers look for descriptive, comparative, or correlative trends in naturally occurring events. Many field investigations begin with counts (gathering baseline data). Later, measurements are intentionally taken in different locations (e.g., urban and rural, or where some natural phenomenon has created different plot conditions), because researchers believe they will find a difference in the subject matter through the use of a computer for the analysis of the subject.

Conclusion

This study dealt with techniques of field investigation and laboratory research using the DACH-SYC approach to the study of music and theatre in our society. The study is of great benefit to researchers and scholars in the areas of music and theatre study and the approach to field investigation. African music, theatre, drama, and techniques of field investigation are of great concern to researchers to improve, document, and bridge the gap in academic knowledge. The most fruitful overall research approach is usually to use both, laboratory and field investigations. The results of controlled experiments produce new approaches or hypotheses to be tried and investigated in the field. Conversely, observations in the field produce new hypotheses to be tested by controlled experiments.

Field investigations help students become systems thinkers, learn the skills of scientific inquiry, and understand that research doesn't only happen in a laboratory or classroom. Outdoor experiences in natural settings increase students' problem-solving abilities and motivation to learn in music and theatre. There are no unique or limited procedures or approaches to research in music and theatre as a discipline or a field of study. Depending on the type of problem being investigated, several approaches may be used, which can also be employed in other educational disciplines. Certainly, field investigation involves data collection, but this requires instruments or devices that have been well prepared and tested and training in observation and accurate recording. It usually involves rigorous, though not necessarily complicated, analysis, often leading to or providing new knowledge or understanding of the subject matter.

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