ABSTRACT

This report describes and evaluates the Advanced Educational Research Institute held from June 20 through August 12, 1966. The primary objective of the institute was the further development and extension of the research competencies of the trainees. The 23 participants were primarily faculty members in institutions of higher education across the nation. Formal academic work consisted of graduate courses titled "Intermediate Statistics," "Advanced Research Methods and Experimental Design," and "Seminar in Research Methodology." During the last week of the institute, each participant submitted a refined statement of an individual research project. Material for evaluative judgments was obtained both from faculty discussions and trainees' opinions that were informally solicited while the institute was in progress and from faculty discussions and trainees' opinions formally solicited at the close of the institute. Included in the report are copies of application forms, publicity materials, and the budget. (MF)
FINAL REPORT
Grant No. OEG-3-6-061890-0780

ADVANCED EDUCATIONAL RESEARCH INSTITUTE

November 1, 1966

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY.

U.S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE
Office of Education
Bureau of Research
Advanced Educational Research Institute

Grant No. OEG-3-5-061890-0780

Program Director, Dr. Robert E. Hill, Jr.

June 12, 1966 - August 12, 1966

The training program reported herein was conducted pursuant to a grant from the Office of Education, U.S. Department of Health, Education, and Welfare. Grantees undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment of the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent official Office of Education position or policy.

Ball State University

Muncie, Indiana
Orientation of Program

This institute had as its substantive academic content advanced educational research methodology. The institute was held at Ball State University, Muncie, Indiana, from June 20, 1966 to August 12, 1966 inclusive. The enrollees (participants, trainees) were primarily faculty members from various institutions of higher education across the nation. There were four enrollees who were not college or university faculty members at the time of the institute, but who were full-time graduate students pursuing doctoral degrees.

The primary objective of the institute was the further development and extension of the research competencies of the trainees. In addition to the obvious advantages to the individuals participating, it was hoped that the trainees could be helped by the institute to become leaders in research on their own campuses as well as advisors and resource personnel for the Regional Research Development Centers and Title I of the Elementary-Secondary Education Act.

More specifically the objectives may be listed as:

1. To create an awareness of the importance of educational research for optimum educational success.

2. To aid in the development of research competencies by (a) providing an understanding of statistical concepts and manipulations essential for the proper analysis of research data; (b) providing understanding and familiarity with research designs applicable to various types of research programs; and (c) bringing participants into direct contact with research projects presently in progress or recently completed.

3. To acquaint the participants with: (a) research opportunities under the various titles of the Elementary and Secondary Education Act of 1965, as well as other sources of possible financial support; (b) the proposed functions and structures of the Regional Educational Research Laboratories; (c) the place of computer programming and other technological instruments in education research.

The total group of 23 enrollees represented a fairly broad spectrum of educational and academic specialties, which may be noted in the following simplified categorization of academic specialties at the graduate level and institutional positions: Full-time doctoral students-4; Education-5;
Physical Education-1; Business Education-1; History-1; Science-2; Industrial Education-1; Mathematics-1; Chemistry-1; Counseling and Guidance-2; Technical Education-1; Educational Psychology-1; Psychology-1; and Speech-1. Details regarding each trainee are available on the United States Office of Education form OE 6003 (2-66), entitled "Statement of Appointment of Trainee Under the Educational Research Training Program". This form was submitted to the United States Office of Education at the beginning of the institute.
Description of the Program

Formal academic work during the institute centered around three graduate courses for which graduate academic credit was granted by Ball State University. The courses are as follows:

1. Intermediate Statistics (4 quarter hours). This course was an extension of elementary descriptive and inferential statistics through basic statistical research design, including analysis of variance.

2. Advanced Research Methods and Experimental Design (4 quarter hours). This course concerned itself with principles and problems relating to the selection and utilization of advanced research methods and experimental designs. Correlational methods and methods of analysis of variance and covariance were applied to various designs ranging from simple randomized, through Latin and Graeco-Latin squares, factorials, mixed, and higher order multi-dimensional.

3. Seminar in Research Methodology (3 quarter hours). This seminar provided supervised group analysis and consideration of research that was being contemplated, in progress, or completed. There was special emphasis of appropriateness of design and statistical analysis of data, potential or actual problems which might or did arise, implications of possible or actual findings, and likely avenues for further investigation. Within the scope of this seminar participants brought with them to the institute, from their respective campuses, personal and specific research problems. These individual and specific research problems formed the basis for group consideration and discussion, following the presentation by the individual participants.

The seminars met from 1:30 until 3:30 p.m., four days per week. During each week, a consultant-lecturer in charge presented research which he himself had accomplished, was contemplating, or was in the process of conducting. There were two exceptions to this, as follow: During the first week, the consultant-lecturer presented basic computer concepts necessary to begin working with the IBM computer on the Ball State University campus; during the final week the consultant-lecturer presented information
relative to federal and other potential sources of financial support for research, together with the functions and structures of the Regional Education Research Laboratories.

The course in Intermediate Statistics was presented during the first formal class hour of the day, from 8:00 a.m. until approximately 9:00 a.m. each day. Following this, there was a coffee break from approximately 9:00 a.m. until 9:30 a.m. From approximately 9:30 a.m. until approximately 10:30 a.m. the course in Advanced Research Methods and Experimental Design was formally presented. From approximately 10:30 a.m. until approximately noon, the students participated in a statistics and design laboratory. During the first four weeks of the institute, the participants ordinarily spent this time in one of two ways; namely, either in discussion of design problems relating to the formal class presentation or to their own specific research problems which they brought with them to the institute, or in the use of desk calculators for the solution of numerical problems which were assigned. During the last four weeks of the institute, the entire group of participants was divided into four parts, and each of the four groups met in a semi-formal fashion to consider, analyze, and discuss the individual research projects brought to the institute by the various participants. During this period, each of the four groups was supervised by one of the four faculty members of the institute. This organization was initiated because it became apparent as the institute progressed that there would not be enough time during the afternoon seminars for adequate coverage of the individual research projects brought to the institute by the enrollees. The seminar presentations by the various weekly consultant-lecturers were more time consuming than was originally anticipated.

As was specified in the brochure, the total group was divided in half for the afternoon session. While one-half of the total group was in a seminar setting for two days each week, the other half was in a laboratory setting involving computer programming and operation. During the other two days of the week, the two groups naturally reversed their assignments. Despite the hope that the time available to the participants would be reasonably generous, it became apparent early in the institute that time pressures on the participants were fairly substantial. For this reason, the field trips originally anticipated for one of the five afternoons were abandoned. The participants
felt that it would be much more to their advantage to have one afternoon without specified assignment rather than to utilize it in a field trip. Every other morning and afternoon of the week involved prescribed academic activities, leaving only the latter part of the afternoons and the evening hours for study and academic preparation. During the last week of the institute, each enrollee handed in to the director a refined statement of the individual research project which he had originally brought with him to the institute from his local campus. In the vast majority of instances this was an extension, modification, and improvement of the original individual research project. However, in a few instances, enrollees became interested in other potential areas of research, and changed their individual research project from that which they had originally specified to some entirely different area.

There were no changes of substance in the curriculum or objectives of the institute as these were originally specified. There were two modest changes in the daily schedule, which have already been mentioned. Namely, these were the creation of a semi-formal seminar setting during the latter portion of the morning during the last four weeks of the institute, and the abandonment of the originally anticipated field trips. Both of these changes occurred as a result of the expressed wishes of participants. There were several changes in staff necessary subsequent to the approval of the institute proposal. The anticipated instructor for the Intermediate Statistics course, Don Beggs (Southern Illinois University), was unable to participate. He was replaced by John W. Wick (University of Iowa), whose background and competencies were similar, and who was willing to come under the same contractual agreement. There were several changes in the eight consultant-lecturers, one of whom was in charge for each of the eight weeks. These changes were necessitated by a wide variety of factors which affected the various individuals who had originally committed themselves to this undertaking. The final schedule was as follows:

Week 1--Mr. James McCoy, Fundamentals of Computer Operation and Programming.

Week 2--Dr. Leroy Getchell, Research in Physical Education.

Week 3--Dr. Robert Sherman, Research in Music Education.

Week 4--Dr. Roy McCormick, Research in Mathematics Education.
Week 5--Dr. May Palacios, Research in Perception.

Week 6--Dr. Arno Wittig, Research in Human Learning.

Week 7--Dr. Earl J. Montague, Research in Science Education.

Week 8--Dr. Richard McKee, Sources of Financial Support for Research Activities, and the Function and Structure of the Regional Educational Research Laboratories.

The original intent, as in the proposal, was to have consultant-lecturers representing a substantial variety of areas. It is felt that the several individuals who fulfilled these roles did represent an acceptable variety of academic areas and specialties.

A certificate of attendance was given to each trainee at the close of the institute. A copy is contained in Appendix C.
Evaluation of the Program

1. Program Factors
   A. Objectives.
   It is felt that the objectives as previously stated in this report are completely acceptable and justifiable. Were there to be another institute of this same nature, it is felt that no change in objectives would be necessary.

   B. Content.
   It is felt that the content of the institute as previously described in this report was basically acceptable. However, were there to be another similar institute, four types of changes might warrant consideration as follow: (1) Make no provision for field trips; (2) Change the consultant-lecturer format in such a way that the individual need not center his presentation around research work which he himself has done; (3) Increase the emphasis on computer programming and operation; (4) Decrease the provision for desk calculator time.

   C. Staff.
   The staff provisions for the institute are regarded as acceptable as they were. It would seem desirable to have one of the faculty members, perhaps the part-time laboratory supervisor, moderately knowledgeable in the areas of computer programming and operation. Also, as indicated in B. above, consultant-lecturers might well be selected without the criterion of any specific research which they have accomplished or are in the process of doing.

   D. Trainees.
   The selection criteria employed in this institute are regarded as acceptable. For this particular institute, it should be noted that information was disseminated so late as to create a very difficult problem of time pressure. It is known from correspondence that this problem reduced the number of individuals completing application materials from the number of potential trainees who would have applied had there been more time. Consequently, not as much selectivity was exercised as would have been desirable. The class size (30) is regarded as satisfactory. There were no commuting problems in this institute, since the explanatory brochure made clear that all participants would be expected to live in the campus facilities provided, and not to commute daily. It is felt that the prohibition of commuting was a desirable
factor. Enrollees in this institute came from widely scattered geographic locations, and it is felt that this wide-spread geographic distribution was desirable.

E. Organization.

It is felt that all organizational factors in the institute were satisfactory. No change would seem to be warranted except with reference to point B. (Content) above. That is, it might be desirable to reduce the desk calculator emphasis within the statistical laboratory setting, and to increase the emphasis of computer programming and operation within that same setting. If the computer installation at the host institution is extremely busy and tightly scheduled, it might be necessary and desirable to provide for work at night in this area.

F. Budget.

It is felt that all budgetary aspects of this institute were satisfactory as specified.

2. Major Strengths

It is felt that this institute possessed several noteworthy strengths. The staff was composed of very competent and highly qualified faculty members, one of whom was very knowledgeable and able in the areas of computer programming and operation. The participants appeared to be very well motivated. The area of research methodology is a rather specialized field, and the potential advantages of improving one's competency in this area are rather obvious. It appeared that the enrollees possessed a clear felt need for self-improvement in the research methodology area, and the letters of recommendation sent by department chairmen or other administrative officials made frequent reference to the benefits which were likely to accrue to the institution from which the participants came. The wide spread of trainees' home geographic regions seemed to add breadth and scope to the institute. It is felt that the prohibition of daily commuting resulted in a desirable type of participant group unity. Also, the substantially different academic disciplines represented by the various trainees was regarded as a favorable feature. The inclusion of experiences in computer programming and operation seemed to be particularly well received. Finally, the classrooms were air-conditioned.
3. Major Weaknesses and Difficulties

There was a fairly substantial amount of difficulty in obtaining faculty members and trainees. This was caused primarily, if not exclusively, by the exceedingly late date at which the proposal received final approval, thus permitting the dissemination of information regarding the institutes and firm commitments to personnel. This is regarded as the only noteworthy difficulty with respect to the local administration or the United States Office of Education.

The disparity of background among enrollees also constituted a major problem. Despite the requirement that enrollees possess knowledge of elementary statistics, the statistical sophistication of the enrollees was widely divergent. This fact naturally resulted in difficulties for the instructors with respect to the problem of providing for individual differences.

Probably the weakest of the academic provisions was that of the afternoon seminars and consultant-lecturers who varied each week. The idea and intent is still regarded as justifiable and desirable. However, the requirement that the consultant-lecturer present research of his own apparently caused some problems. Since the individual was presenting work of his own, this tended to lead to rather substantial ego-involvement. This, in turn, tended to result in the expenditure of excess time on the individual's own research. As a result of this, there was a tendency to neglect the research proposals which the participants brought to the institute from their local campuses, and also to neglect issues such as the appropriateness of various experimental designs for research in the area in question. As has been mentioned before, if another institute of this sort were to be held, it might be desirable for the consultant-lecturers to choose published research from various sources within their academic specialty, but to avoid the presentation of personally conducted research.

4. Over-all Evaluation

Considered in its totality, the institute is regarded as highly successful. Material for evaluative judgments was solicited in four basic ways: (1) Faculty discussions while the institute was in progress; (2) Trainees' opinions informally solicited while the institute was in progress; (3) Faculty discussions at the close of the institute; and (4) Trainees' opinions formally solicited at the close of the institute.
Evidence from these four sources may or may not be regarded as objective, depending upon the point of view of the reader. However, this represents as much objectivity as could be mustered. At the close of the institute, trainees were required to hand in an anonymous evaluation. It was recommended that the evaluation be typewritten, which it was in many cases. Further, it was stressed that the evaluation was to be anonymous, and therefore unsigned. In the opinion of the director, it speaks well for the morale and esprit de corps of the trainees to note that several identified themselves on the evaluative sheets. There were 12 categories in which comments were solicited as follow:

1. Objectives, and the extent to which they were met.
2. Content of courses.
4. Seminars (various consultant-lecturers; various areas).
5. Enrollees selection.
6. Organization.
7. Time and scheduling.
8. Facilities.
9. Instruction and/or instructors.
10. Administration and/or director.
11. Major strength(s).
12. Major weakness(es).

In addition to these 12 categories, a blank page was furnished for any additional comments or suggestions which the trainees might care to make.

With comments of unstructured prose such as result from this type of evaluation solicitation, it is difficult to present any precise summary of results. Naturally some statements were more favorable than others, and some trainees were generally more pleased than others. Generally speaking, however, the evaluative statements were definitely favorable. In addition, since the close of the institute the director has received unsolicited communications (written, telephoned, face-to-face conversations) which were without exception very complimentary. The two major themes of such communications were: (1) An expression of satisfaction with the institute; and (2) Gratitude for the learning opportunity it afforded.

5. There would appear to be no reasonable basis for recommending any substantive changes with regard to the United States Office of Education in terms of policy, forms and instructions, procedures, cooperation, or any other matter.
The only obvious exception to this was the extremely late approval of the institute proposal. It has been made known by telephone conversations that responsible persons in the United States Office of Education are painfully aware of this, and will do their utmost to avoid a repetition of such lateness.
Program Reports

1. Publicity

As has been previously mentioned, the institute proposal received final approval late in the academic year for the purposes of being held the following summer. The director abided by the recommendations of the Ball State University Office of Research with respect to all publicity media. The institute approval appeared to take place in something of a sequence of steps.

The first publicity was a letter dated November 22, 1965, which called attention to the fact that Ball State University was in the process of preparing a proposal for the Research Institute. This letter requested a reply on an enclosed postal card as to whether any faculty member in the institution receiving the letter might possibly be interested in participating in the institute should it come to pass. This letter was jointly signed by the Head of the Department of Psychology and the Acting Director of Research, and was sent to academic deans (if named) or presidents of small colleges and universities in Indiana and Illinois. There were approximately 40 such letters.

The director was informed by the local Office of Research on March 23, 1966, that the proposal was approved to the extent that letters and brochures could be mailed. Copy for a brochure was written, and the process of getting it printed begun. A follow-up letter dated April 11 was sent to the same people who had received the previous November letter. The letter of April 11 informed them that the Institute had been approved, that a brochure and application materials were in the process of preparation, and asked for the name of any interested person(s) from their institution. As a matter of convenience, a copy of the original letter of November 22 was enclosed.

Because of the lateness, it was decided to publicize the institute more widely than had been done with the original letter of November 22. The director prepared a roster of all "smaller" public and private institutions of higher education (in Indiana and two tiers of surrounding states) having a teacher education program as listed in a directory of institutions of higher education published by the United States Office of Education. This roster consisted of about 115 institutions. At approximately this same time, the local Office of Research suggested to the director that it might be desirable to publicize the institute with all institutions...
who were members of the Association of State Colleges and Universities. It was agreed that this should be done. The director used a roster of ASCU member institutions furnished by the Office of the President of Ball State University. This list contained about 185 institutions. There was some overlap between the two rosters, and it is estimated that approximately 250 separate institutions were notified. Copies of the two letters may be found in Appendix A.

The brochures were mailed during the week of April 11, and all mailing was completed by April 15. A copy of the brochure, application form, and accompanying letter may be found in Appendix B.

2. Application Summary

a. Approximate number of inquiries from prospective trainees (letter or conversation) 75

b. Number of completed applications received 29

c. Number of first rank applications (Applicants who are well-qualified whether or not they were offered admission) 27

d. How many applicants were offered admission 25

3. Trainee Summary

a. Number of trainees initially accepted in program 25

Number of trainees enrolled at the beginning of program 23

Number of trainees who completed program 23

b. Categorization of trainees

1) Number of trainees who principally are elementary or secondary public school teachers 1

2) Number of trainees who are principally public school administrators or supervisors 1

3) Number of trainees from State education groups 0

4) Number of trainees from colleges and universities 17
5) Doctoral Students

4. Program Director's Attendance
   a. What was the number of instructional days for the program? 40
   b. What was the percent of days the director was present? 100%

5. Financial Summary

   a. Trainee Support
      (1) Stipends 18,000 13,800
      (2) Dependency allowance 9,000 4,920
      (3) Travel 960 1,323

   b. Direct Costs
      (1) Personnel 18,960 17,185
      (2) Supplies 1,200 375
      (3) Equipment 1,000 1,000
      (4) Travel 334 15
      (5) Other 1,544 1,052

   c. Indirect Costs 3,984 3,984

   TOTAL 54,982 43,654
Ball State University is in the process of preparing a proposal (under Title IV of the Elementary-Secondary Act) for a Research Institute to be held on campus during the summer of 1966. The primary purpose of the Institute will be to develop research competencies of faculty members who could become leaders in research on their own campuses as well as advisors and resource personnel for the Regional Research and Development Centers and Title I of the Elementary-Secondary Education Act. Participation will be restricted to college and university personnel.

The proposed program for this Institute will include the following:


Advanced Research Methodology and Experimental Design - The selection and development of research methods and experimental designs applicable to various problem situations.

Seminar in Research Methodology - Group analysis of completed and "in progress" research projects with emphasis upon appropriateness of design, special problems incurred, findings, and opportunities for further research. Opportunities for familiarization with the Regional Research and Development Centers will be provided.

Ample individual guidance by competent staff members will be provided. Calculators and other research tools will also be available. If desired, the participant may receive up to 11 quarter hours of graduate credit. A stipend of seventy-five dollars per week will be available for all participants. In addition, each participant will receive fifteen dollars per week for each dependent establishing temporary residence in Muncie for the duration of the Institute.

At this time, we are merely interested in determining if there is a need for such an institute. If you think one of your faculty members might be interested in participating in such an Institute, would you please check yes on the enclosed card and return to us as soon as possible. If you indicate an interest, we will provide further information so that your faculty members will have an opportunity to apply for the Institute.

Sincerely,

Carson M. Bennett, Head,  Richard C. McKee, Acting Director
Department of Psychology of Research

RCM:kmb

A-1
Dear Sir:

In a letter of November 22, 1965, signed by Drs. Bennett and McKee, you were informed of a Ball State University proposal for a Research Institute to be held on campus during the summer of 1966. At that time the interest of any of your faculty members had to be regarded as tentative and potential.

Ball State University has now been informed that the Institute has been funded through the United States Office of Education, and will therefore definitely be held. The eight-week Institute will begin on June 20 and end on August 12, 1966.

We are in the process of preparing an explanatory brochure and formal application materials. Due to the press of time, it would be very helpful to us if we could receive at once the name and address of any faculty member(s) whose interest in enrolling may now be regarded as quite definite. As soon as the informational brochures and application materials are prepared, we will send them to the interested person(s) as designated.

As a matter of convenience, a copy of the original letter is enclosed. Should you want additional information, please get in touch with me. My office telephone is 285-4124; my home telephone is 288-3128. Both have an area code of 317.

Sincerely yours,

Dr. Robert E. Hill, Jr.
Director, Research Institute
Education Annex, Room 104
Ball State University
Muncie, Indiana 47306

REH:kmb

Enclosure: 1
### PROPOSED PROGRAM SCHEDULE

<table>
<thead>
<tr>
<th>Time</th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:00 - 9:00</td>
<td>STAT</td>
<td>STAT</td>
<td>STAT</td>
<td>STAT</td>
<td>STAT</td>
</tr>
<tr>
<td>9:00 - 9:30</td>
<td>Coffee</td>
<td>Coffee</td>
<td>Coffee</td>
<td>Coffee</td>
<td>Coffee</td>
</tr>
<tr>
<td>9:30 - 10:30</td>
<td>DESIGN</td>
<td>DESIGN</td>
<td>DESIGN</td>
<td>DESIGN</td>
<td>DESIGN</td>
</tr>
<tr>
<td>10:30 - 12:00</td>
<td></td>
<td></td>
<td>LAB - STAT</td>
<td>LAB - STAT</td>
<td></td>
</tr>
<tr>
<td>12:00 - 1:30</td>
<td></td>
<td></td>
<td>lunch</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1:30 - 2:30</td>
<td></td>
<td>FREE</td>
<td>Seminar</td>
<td>Seminar</td>
<td>Seminar</td>
</tr>
<tr>
<td>2:30 - 3:30</td>
<td>Field</td>
<td>Group 1</td>
<td>Lab</td>
<td>Group 2</td>
<td>Group 1</td>
</tr>
</tbody>
</table>

In addition to desk Calculators, an IBM 1620 computer will be available for demonstration and programming of simple statistical problems.
BALL STATE UNIVERSITY
Muncie, Indiana

Advanced Educational Research
For College and University Faculty Members

June 20–August 12, 1966
Eight weeks

OBJECTIVES
The primary purpose of this institute is to further the development of research competencies of interested college and university faculty members. Such persons are in a unique and favorable position to become leaders in educational research on their own campuses, as well as advisors and resource personnel for the Regional Educational Research Laboratories and Title I programs of the Elementary-Secondary Education Act.

Specifically, the objectives may be regarded as:
1. To create an awareness of the importance of educational research for optimum educational success.
2. To aid in the development of research competencies by:
   (a) providing an understanding of statistical concepts and manipulations essential to the proper analysis of research data;
   (b) providing understanding and familiarity with research designs applicable to various types of research problems; and
   (c) bringing participants into direct contact with research projects contemplated, in progress, or recently completed.
3. To acquaint the participants with:
   (a) research opportunities under the various titles of the Elementary and Secondary Education Act of 1965;
   (b) the proposed functions and structures of the Regional Educational Research Laboratories;
   (c) the place of computer programming and other technological instruments in educational research.

The entire institute program is geared toward the fulfillment of the first objective. Objectives 2 (a) (b) will be met by means of the statistics and research design courses. Objectives 2 (c) and 3 (b) (c) will be dealt with in a series of small group seminars. Enrollees will bring to the institute specific research projects which they have planned or on which they are working. These projects will be one of the bases for seminar activities.

PROGRAM
A series of three graduate-level courses will constitute the "core" of the institute program. A total of eleven (11) quarter hours of graduate credit may be earned by completing all the requirements.

Following is a brief description of the three "core" courses:
1. Intermediate Statistics (4 quarter hours)
   Catalog Description: An extension of elementary descriptive and inferential statistics through basic statistical research designs, including analysis of variance and covariance. Note: Competence in elementary statistics is presumed.

2. Advanced Research Methods and Experimental Design (4 quarter hours)
   Catalog Description: Principles and problems relating to the selection and utilization of advanced research methods and experimental designs. Correlational methods and methods of analysis of variance and covariance will be applied to various designs ranging from simple randomized, through squares, factorials, mixed, and higher order multi-dimensional.

3. Seminar in Research Methodology (3 quarter hours)
   Catalog Description: This seminar provides supervised group analysis and consideration of research which is contemplated, in progress, or completed. There will be special emphasis on appropriateness of design and statistical analysis of data, potential or actual problem implications of proposed
or actual findings, and likely avenues for further investigation. Note: Enrollees will discuss personal research problems which they bring to the institute from their respective campuses. Each week a lecturer-consultant will be in charge of seminar activities. These eight people will present material relating to areas in which they have worked or are working. Brief bibliographies will give additional structure to the varied topics. The total group of 30 enrollees will be divided into two groups of 15 each for a more effective seminar environment.

Lecturer-Consultants and their topic areas are:

<table>
<thead>
<tr>
<th>Lecturer-Consultant</th>
<th>Topic Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Dr. Robert E. Hill, Jr.</td>
<td>Research in Music Education</td>
</tr>
<tr>
<td>2. Dr. Ebert Miller</td>
<td>Project English</td>
</tr>
<tr>
<td>3. Dr. Stanley Wenck</td>
<td>Test Development</td>
</tr>
<tr>
<td>4. Dr. Daryl Dell</td>
<td>Computer Operations</td>
</tr>
<tr>
<td>5. Dr. Richard McKee</td>
<td>Federal Programs With Emphasis Upon Research and Development Centers</td>
</tr>
<tr>
<td>6. Dr. Wyman Fischer</td>
<td>Prediction of Academic and Teaching Success</td>
</tr>
<tr>
<td>7. Dr. May Palacious</td>
<td>Experiments in Perception</td>
</tr>
<tr>
<td>8. Dr. Earl Montague</td>
<td>Research in Science Education</td>
</tr>
</tbody>
</table>

ACADEMIC CREDIT

The three “core” courses of the institute will total 11 quarter hours of graduate credit which enrollees may earn. Examinations will be given, and evaluative judgments made of each enrollee, whether he seeks academic credit or not. Enrollees are encouraged, but not required to obtain graduate academic credit. Credit earned may be applied to a graduate degree program at the discretion of the institution whose program is being followed.

ELIGIBILITY AND SELECTION OF ENROLLEES

The institute will be open to thirty (30) faculty members from colleges and universities (both public and private) having teacher education programs. Selection will be based on information received in the application material, with preference given to those whose background, present position, and probable future indicate that they "may benefit profit from the institute."
Applicants must furnish (as a part of application materials):
(1) Two official transcripts of GRADUATE academic credit. (At least one course in statistics is presumed)
(2) A letter of recommendation from the appropriate administrative official (such as department chairman or dean).
(3) A personal letter. In the letter the applicant is to A) explain why he wishes to attend the institute, and how benefits which therefore accrue to him may be utilized, and B) state a specific research problem on which he is going to work, or is currently working.

TUITION AND FEES
There will be no tuition or fee cost to enrollees. Enrollees are expected to pay for housing, food, vehicle registration, books and academic supplies, and any commercial entertainment voluntarily selected.

STIPENDS
Enrollees will receive a stipend of $75 per week. They will also receive $15 per week for each dependent if, and only if, the dependent accompanies them to the institute and resides there with them during the institute.
Enrollees will also receive reimbursement at the rate of $.08 per mile for one round trip between their residence and Ball State University, up to a maximum of $100.

HOUSING AND MEALS
Enrollees will be housed in one of the university dormitories. The cost for housing (two people to a room) will be $76.80 per person for the eight weeks. The cost for a single room is $112.00 for the eight weeks. The exchange of ideas among enrollees living together is considered to be an important part of the institute program. Hence, all will be expected to live in the facilities provided, and not to commute daily.
Meals will be available in a cafeteria style in the university dining facilities. Cost will depend on food selection and individual eating habits.

RECREATION
Campus recreation facilities include tennis courts, a swimming pool, field for track and ball games, air-conditioned reading rooms in the library, and Student Center facilities such as bowling and pocket billiards. Theatrical productions, art and music festivals, and a film series are available on campus.

The city of Muncie has indoor and outdoor theatres, swimming pools, bowling, billiards, etc. available commercially. There are also free city park facilities. Numerous state parks are within easy driving distance for weekend outings.

APPLICATION
Address requests for application materials and further information to:
Dr. Robert E. Hill, Jr.
Director, Research Institute
Education Annex, Room 104
Ball State University
Muncie, Indiana 47306
Please file completed applications as early as possible. The deadline is May 15, 1966.
Successful applicants and alternates will be notified as soon as possible, and not later than May 31, 1966.

STAFF
Dr. Robert E. Hill, Jr.
Ball State University, Director
Dr. Eugene D. Fitzpatrick
Illinois State University
Research Methods and Design Instructor
Mr. John W. Wick
University of Iowa
Statistics Instructor
Dr. Wyman E. Fischer
Ball State University
Laboratory Supervisor and Assistant in Instruction
Weekly Lecturer-Consultants as Specified under "Program" section.
Dear

We are pleased to know of your interest in our 1966 Summer Institute.

Our uncomfortably tight time schedule is not a matter of choice, but of necessity. It is due to lateness in various phases of the sequence from proposal to approved program. We apologize for such things as fluid-duplicated form letters and application blanks.

If you wish to apply, please use the following checklist as a matter of convenience:

1. Application form Complete and return to me.

2. Your personal letter Send to me.
   (Containing A) your reason for wanting to attend the institute, and B) your specific research problem)

3. One letter of recommendation (from your department head or dean)

4. Two official transcripts of GRADUATE academic work If you have two copies, send them to me. Otherwise, have them sent directly to me by the institution(s) attended.

All completed applications must be post-marked no later than May 15, 1966. It would be very helpful to have the material as early as possible. Please get in touch with me if you have any questions.

Sincerely yours,

Robert E. Hill, Jr.
Director, Research Institute
Education Annex, Room 104
Ball State University
Muncie, Indiana 47306

REH/dc

B-2
Application Form
Advanced Educational Research Institute
Summer, 1966: June 20 through August 12
Ball State University
Muncie, Indiana

INSTRUCTIONS:

1. Check the qualifications and requirements.
2. Complete this application form.
3. Have your department head or dean write a letter of recommendation for you, and have him send it directly to me.
4. Send me two official transcripts of all of your GRADUATE academic credit. If you do not have two copies, have them sent directly to me by the institution(s) attended.
5. If you are selected, it will be necessary for you to complete registration materials and materials for admission to the graduate school of Ball State University (if you have not previously done so).
6. All application materials must be post-marked not later than May 15, 1966.
7. Letters of acceptance and completed registration materials must be returned to me post-marked not later than June 5, 1966.

Please answer each item, writing "none" or "not applicable" where appropriate. Use extra sheets of paper if necessary.

PLEASE PRINT OR TYPE ALL RESPONSES

<table>
<thead>
<tr>
<th>Name</th>
<th>Last</th>
<th>First</th>
<th>Middle</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex</td>
<td>Male</td>
<td>Marital status</td>
<td>Single</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Date of birth</th>
<th>Month</th>
<th>Day</th>
<th>Year</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Mailing address</th>
<th>Street and Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>(residential)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>City and State</th>
<th></th>
</tr>
</thead>
</table>

B-3
Residential telephone number______________________________

Mailing address__________________________________________
(institutional) Street and Number
________________________________________________________
City and State

Institutional telephone number______________________________

What is your position-title-capacity at your institution?
________________________________________________________

Describe briefly what your job is at your institution, that is, what you do, or what your job specification is.
________________________________________________________

Approximately what percent of your professional time is spent as a teaching faculty member ______ % in administrative duties ______ %

List those dependents, other than yourself currently claimed as exemptions on your Federal Income Tax return. Place a check mark (x) before the name of each dependent who will accompany you to the institute and reside here with you during the eight weeks.

<table>
<thead>
<tr>
<th>Name</th>
<th>Sex</th>
<th>Age</th>
<th>Relationship</th>
</tr>
</thead>
</table>

What is the highest academic degree you have earned?________

From what institution did you earn this degree?________

Name

d____________________________

Address of institution city and state

What year was this degree granted?________

What was your area(s) of academic specialization?
Undergraduate________________________________________
Graduate________________________________________

B-4
Have you had at least one course in elementary or beginning statistics?
( ) Yes, undergraduate
( ) Yes, graduate
( ) No

What year did you take the work in statistics?

In addition to the responses on this form, remember to:

1. Have your department chairman or dean write a letter of recommendation for you. He is to send it directly to me.

2. Write a personal letter to me, including A) information about why you wish to attend the institute, and how benefits which therefore accrue to you may be utilized, and B) a statement of a specific research problem on which you are going to work, or are currently working. These specific research problems will be a part of our seminars.

Signature

Title

Date

Return this application form to:

The Director of the Institute
as soon as possible.

The deadline is May 15, 1966.
This is to certify that

was a duly enrolled participant in the Advanced Educational Research Institute offered by Ball State University under contract with the United States Office of Education. The completion of satisfactory work resulted in the earning of eleven quarter hours of academic credit at the graduate level, distributed in the following areas:

- Psychology 542  Intermediate Statistics
- Psychology 545  Experimental Design
- Psychology 594  Seminar in Research Methodology

Signed this twelfth day of August, 1966

Wyman E. Fischer
Statistics Laboratory and Seminar Supervision

Eugene D. Fitzpatrick
Experimental Design

Robert E. Hill, Jr.
Director

John W. Wick
Intermediate Statistics