A two-week research training institute was held to give 25 school counselors experience and training in the following areas: (1) use of data processing equipment, including key-punch, sorter, collator, reproducer, and interpreter; (2) preparation of simple statistical computer programs; (3) use of card and punched-tape input to available computers; (4) use of concepts of central tendency, standard deviation, correlation, chi-square, and t-tests, (5) use of Program Evaluation and Review Techniques (PERT), (6) use of experimental research designs, and (7) use of the ERIC system. The evaluation research carried out after termination indicates highly favorable responses with respect to content, staff, trainees, and budget. The major strength is seen in breadth of exposure to research concerns; the major weakness is seen to be the lack of time. Statistical summaries and samples of all forms are included. (BP)
Final Report
Project No. 8-8038
Grant No. OEG 0-8-088038-4455(010)

COUNSELOR RESEARCH TRAINING

Thomas E. Long
Altoona Area School District
Altoona, Pennsylvania

October 21, 1968

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

U.S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE
Office of Education
Bureau of Research
Introduction. This research institute acquainted twenty-five school counselors with the concepts of research including several of the related services and systems which can assist and refine today's educational research endeavors.

During the two weeks training period, August 5 through 16, 1968, the participants received hands-on experience in using a computer and computer-related peripheral equipment. They accessed the computer by both card and punched-taped input. The training in punched-tape input involved the use of remote terminal consoles which are available to most school systems in America today.

The specific objectives of the Institute were to provide the participants with the following understandings and competencies:

1. An operational understanding of data processing equipment including the key-punch, sorter, collator, reproducer, and interpreter.

2. An understanding of the processes involved in the preparation of simple statistical computer programs.

3. An understanding of the methods of gaining access to available computers using either card input or punched-tape remote terminals.

4. A more complete understanding of the use and application of the concepts of central tendency, standard deviation, correlation, chi-square, and t-tests of significance.

5. An introduction to the concepts of Program Evaluation and Review Techniques (PERT).

6. An introduction to experimental research designs and their associated invalidities.

7. An introduction to the ERIC system and its value in research and data review activities.

The training also attempted to encourage counselors to engage in cooperative research endeavors with other schools in their home-school areas.

Description of the Program. The instructional program of the Institute encompassed the following major content areas: Fortran programming, data processing, use and capabilities of the remote terminal, a review of basic statistics, Program Evaluation and Review Techniques, research design, and the ERIC system.
Three consultant presentations were also made relative to PERT, ERIC, and the role of the counselor as a researcher.

The sessions began with introductions, orientation, and administrative details followed immediately with the "Counselor As A Researcher" presentation. The remainder of the first week was devoted to a review of statistical concepts and an introduction to data processing and programming techniques.

The second week began with the presentation concerning ERIC by the consultant from the Ohio State Vocational and Technical Center. This was followed by the PERT, research design, and practicum sessions. Following receipt of the grant award, Dr. Desmond Cook was unable to arrange his schedule to make the PERT presentations. Dr. Jay Smink, State Director of the Research Coordinating Unit, was engaged to handle this segment of the program. The final session of the week was devoted to the evaluation of the Institute by the participants.

Evaluation of the Program.
1. (a) Content - The content areas of the training were all well received. Most interest, however, was expressed in the programming and computer accessing segments where students had opportunities for hands-on experience with the equipment. The PERT, ERIC, and research design activities created new awarenesses for most of the participants. They felt, however, that much more time than that which was allotted in this Institute would be needed for a thorough study of research designs. This Institute, however, was developed to create awareness of many of these research concepts and techniques. After this initial exposure, it is expected that the participants will continue to explore, internalize, and apply the applicable techniques. About half of the participants felt that the Institute was not long enough. Of these, half felt that it should be extended by one week; the remainder would like to see it extended by two weeks or more.

(b) Staff - The participant-staff ratio was excellent, 25 to 1 in all areas of instruction. Participant reaction to all formal instruction was favorable. The consultant presentations were also judged to be of high calibre. The presence and participation of these consultants lent a new flavor to the training experience.

(c) Trainees - Due to the late announcement of the Institute sessions, applicant response was not as great as in previous offerings of this type. The applicants for this most recent Institute also did not seem to possess an educational attainment level equal to the applicant group for the previous Institute held in Altoona. Their experience and training characteristics were not matched. The eligibility requirement of full-time counseling responsibility was relaxed to include one trained counselor from the Ohio State
Bureau of Guidance Services who is charged with planning one day state research training sessions for school counselors. Participation inquiries, however, came from much of the North-Eastern section of the country, and as in previous situations, interest was expressed by educational workers in disciplines other than counseling. Many expressed interest in participating in future sessions of this type. Many could not formally apply this year due to the lateness of the hour of receipt of information advertising the training opportunity.

Again, it is felt that it would seem advisable to plan two future institutes of this type, one for counselors only, and one for other non-teaching elementary and secondary workers - principals, psychologists, deans, etc. These sessions might be conducted either concurrently or consecutively using the same instructional materials and staff. The two groups could then be subjected to longitudinal follow-up observations to determine which group applied the research skills most frequently, realistically and why.

(d) Budget - The budget in general was most adequate. The only deviation from anticipated expense came in the dependency allowance area. The budgeted allowance for dependents fell $165.00 shy of meeting this expense. Approval was requested from and subsequently approved by the Bureau of Research, USOE, to transfer some unexpended travel funds to meet this expense.

2. The major strength of the Institute seems to have been the broad dimension of exposure for the participants to research related concerns. Other strengths have been the facilities and computer-related instructional staff of the Altoona Area School System. Finally, a most significant local strength which deserves mention is the professional interest, support, and encouragement to attempt such research endeavors offered by the local superintendent of schools.

3. The major weakness of the program seems to have been the lack of time to give each person the optimum amount of personal instructional attention in the skill areas presented.

4. The Institute program seems to have been well received by the participants. Verbal and written comments were approving and supportive. All participants rated the overall effectiveness of the training as being either excellent or good.

5. The only recommendation which might be offered relative to USOE administration is that the Institute staff would have been pleased by a visit of the project officer during the training period. On-site evaluation might have provided us with new awareness, insights, and direction.
Also, although we understand and are sympathetic to the budgetary constraints and the reason for the delay in this year's activities, future contract negotiations should provide more lead time between the awarding of the grant and the time the training is to begin. The demands of staffing, advertising, selection of participants, ordering of materials, scheduling of services and consultants, etc., will be better served and coordinated.

Program Reports.

1. Publicity - This Institute was originally publicized by the United States Office of Education. Subsequent to receipt of the contract, it was advertised locally and regionally by newspaper, radio, and television services.

Brochures and notification of the award were sent to the Eastern Regional Institute for Education, Research For Better Schools, and the Appalachian Regional laboratories.

Brochures were also sent to the State Directors of Guidance Services in Maryland, New Jersey, New York, Ohio, Pennsylvania, and West Virginia.

The Institute was also announced at a statewide conference on "The Professional, Ethical, and Legal Responsibilities of Counselors in Record Keeping and Releasing" which was conducted in Altoona by the director of the Institute.

In addition, the prepared brochure was sent to all school and diocesan superintendents and supervising principals in Pennsylvania.

2. Application Summary.
   (a) Approximate number of inquiries from prospective trainees (letter or conversation)  60
   (b) Number of completed applications received  30
   (c) Number of first rank applications (Applicants who are well-qualified whether or not they were offered admission)  25
   (d) How many applicants were offered admission  25

3. Trainee Summary
   (a) (1) Number of trainees initially accepted in the program  25
   (2) Number of trainees enrolled at the beginning of the program  25
   (3) Number of trainees who completed the program  25
(b) **Categorization of trainees**

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

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

(3) Number of trainees from colleges or universities, junior colleges, research bureaus, etc. (Specify)  

State Bureau of Guidance Services  

4. **Program Director's Attendance**

(a) What was the number of instructional days for the program?  

(b) What was the percent of days the director was present?  

5. **Financial Summary**

(a) **Trainee Support**

<table>
<thead>
<tr>
<th>Item</th>
<th>Budgeted</th>
<th>Committed</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Stipends</td>
<td>$3,750.00</td>
<td>$3,750.00</td>
</tr>
<tr>
<td>(2) Dependency Allowance</td>
<td>1,875.00</td>
<td>2,040.00*</td>
</tr>
<tr>
<td>(3) Travel</td>
<td>800.00</td>
<td>516.80</td>
</tr>
</tbody>
</table>

(b) **Direct Costs**

<table>
<thead>
<tr>
<th>Item</th>
<th>Budgeted</th>
<th>Committed</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Personnel</td>
<td>$1,810.30</td>
<td>$1,810.30</td>
</tr>
<tr>
<td>(2) Supplies</td>
<td>273.50</td>
<td>206.01</td>
</tr>
<tr>
<td>(3) Equipment</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>(4) Travel</td>
<td>160.00</td>
<td>101.43</td>
</tr>
<tr>
<td>(5) Other (a) Postage &amp; printing</td>
<td>150.00</td>
<td>146.03</td>
</tr>
<tr>
<td>(b) Keeping computer operating for 80 hours</td>
<td>400.00</td>
<td>400.00</td>
</tr>
</tbody>
</table>

(c) **Indirect Costs**  

<table>
<thead>
<tr>
<th>Item</th>
<th>Budgeted</th>
<th>Committed</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) Postage &amp; printing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(b) Keeping computer operating for 80 hours</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Total**  

- **Expended or Committed**: $9,956.26 $9,688.21

* Permission was granted by USOE to transfer $165.00 from unused travel money to this expense.
6. **Participant Evaluation.**

The following information reports on the nature of responses made by the participants on the Institute evaluation forms.

**EVALUATION INSTRUMENT**
COUNSELOR RESEARCH TRAINING INSTITUTE
ALTOONA AREA SCHOOL DISTRICT
ALTOONA, PENNSYLVANIA 16603

We would like to have your frank evaluation of the Institute. Your reactions to the following items not only will provide data for evaluating the present sessions but will be of value in planning similar activities. It is not necessary for you to put your name on this evaluation instrument but, if you want to, we would appreciate your doing so.

Please respond to each item.

1. **Did you live at the Altoona campus?** Yes 72% No 28%

2. **Were the accommodations satisfactory?**
   - Excellent 20%
   - Very Good 32%
   - Fair 20%
   - Poor

3. **Please state the major advantages of living in the type of accommodations you had.**
   **Typical responses:**
   - The group was all together
   - Group discussion

4. **Please state the major disadvantages of living in the type of accommodations you had.**
   **Typical responses:**
   - Distance from computer center
   - No food service
   - Transportation for one who does not drive

5. **How do you rate the Institute with respect to the extent to which the following objectives have been realized by yourself?**

   (A) **Increase in knowledge of data processing procedures:**
   - Excellent 66%
   - Good 28%
   - Fair 4%
   - Poor
   - Very Poor
   **Comment:**
   - Typical responses
   - All phases very interesting
   - This area appears to have more immediate and practical application to most administrative tasks that now confront us.

---
(B) Increase in understanding of simple statistical programming in Fortran:

Excellent 16%; Good 32%; Fair 36%; Poor 8%; Very poor 5%

Comment: Typical responses
Exposure too limited
Could have devoted more time to this
Time sharing seems realistic to me now

(C) Increase in knowledge of the use of statistics in research and their application:

Excellent 16%; Good 64%; Fair 20%; Poor 8%; Very poor 4%

Comment: Typical responses
Made me aware of my limited knowledge in research
Happy for the review of statistics
More instructional time would have been of benefit
I require more detailed instruction when it comes to statistics

(D) Increase in knowledge of research project and program reviews available (ERIC).

Excellent 20%; Good 60%; Fair 16%; Poor 4%; Very poor 4%

Comment: Typical responses
Did not seem pertinent to me
A new concept to me
First introduction to program - 2 needed more
Future applications unlimited

(E) Increase in understanding of PERT methods:

Excellent 16%; Good 52%; Fair 28%; Poor 4%; Very poor 4%

Comment: Typical responses
In our work, is it worth the time and effort?
A new concept for me
More time needed here
Small group work would have helped

(F) Increase in understanding of Research Designs:

Excellent 4%; Good 28%; Fair 48%; Poor 20%; Very poor

Comment: Typical response
Too much in a few days
This was interesting
More time needed
Too much information to assimilate in a few days

-7-
(G) Opportunity for exchange of ideas with other participants:
Excellent 76% ; Good 16% ; Fair 8% ; Poor 2% ; Very poor
Comment: Excellent

6. Did you experience the following difficulties?

(A) Lack of background knowledge in statistics:
  Much 4% ; Some 36% ; Little 36% ; None 24%

(B) Lack of background knowledge in data processing:
  Much 40% ; Some 24% ; Little 16% ; None 20%

(C) Lack of experience in research and investigation activities on the job in your school:
  Much 28% ; Some 40% ; Little 24% ; None 8% One did not respond

(D) Lack of background knowledge in computer programming:
  Much 52% ; Some 24% ; Little 16% ; None 8%

(E) Lack of background knowledge in research design:
  Much 56% ; Some 16% ; Little 24% ; None 4%

(F) Lack of background knowledge in PERT methods:
  Much 40% ; Some 32% ; Little 20% ; None 8%

7. How do you rate the quality of instructors?

(A) Relating to data processing:
  Excellent 76% ; Good 24% ; Fair 8% ; Poor 2% ; Very poor

  Please comment: Typical responses
                 Extremely helpful
                 Valuable information

(B) Relating to programming:
  Excellent 88% ; Good 12% ; Fair 8% ; Poor 2% ; Very poor

  Please comment: Typical responses
                 Good information
                 Time too short
                 Needed more depth in presentation and availability
                 -8-
(C) Relating to educational statistics:

Excellent 68% ; Good 28% ; Fair 4% ; Poor None; Very poor

Please comment: Typical responses
Mostly review materials
More depth than most of us needed
Good information

(D) Relating to Research Design:

Excellent 24% ; Good 32% ; Fair 44% ; Poor None; Very poor

Please comment: Typical responses
Too much in too short of time
Not enough time allotted to this
All new information

(E) Relating to PERT methods:

Excellent 32% ; Good 28% ; Fair 40% ; Poor None; Very poor

Please comment: Could have done a guidance related project in this

8. Of what value were the speeches by outside consultants?

Great 20% ; Substantial 60% ; Slight 16% ; None One did not respond

Please comment: Typical responses
New and varied information
Materials were exceptional and relevant
Dynamic and informative

9. How do you rate the administration of the Institute?

Excellent 40% ; Good 60% ; Fair None; Poor None; Very poor

Please comment: Typical responses
Instructors extremely helpful
Well planned
At times I felt we were crowded
All instructions clear
More time needed for consultation

10. How do you rate the following facilities for institute participants?

(A) Data Processing

Excellent Good Fair Poor Very poor
88% 8% 8% 8%

(B) Computer

Excellent Good Fair Poor Very poor
88% 8% 8% 8%

(C) Classroom

Excellent Good Fair Poor Very poor
16% 44% 36% 8%

(D) Lounges

Excellent Good Fair Poor Very poor
4% 52% 40% 8%
(E) Area Restaurants  
Excellent  Good  Fair  Poor  
36%  52%  4%  4%

(F) Instructional Handouts  
Excellent  Good  Fair  Poor  
36%  52%  8%

One did not respond to any of the above.

11. How do you rate the overall effectiveness of the Institute?
Excellent 48% ; Good 42% ; Fair ; Poor ; Very poor .
One did not respond

Please comment: Typical responses
Fulfilled its major objective - creating awareness of research
Received more than expected
Relevant to my needs and very beneficial

12. Did the Institute fail to provide some learning experience which you expected and wanted? Please explain what it was:

Typical responses: PERT program could have been extended
I got what I expected and wanted

13. What, if any, were notable strengths of the Institute?

Typical response: Good instructors
Excellent facilities
Hands-on time of various machines
The capabilities of the hardware
Giving an overall picture of what research
in education entails

14. What were notable weaknesses of the Institute?

Typical responses: Appeared to be some periods of inactivity
Limited time
Time too short for adequate presentation of some topics

Please make suggestions for the improvement of this kind of Institute.

Typical responses: More time for learning in each area
Smaller work groups
Do an individual project
Finish last day by noon
We will welcome any other comments or suggestions which you care to make.

Typical responses: This has been a pleasurable experience
A profitable and enjoyable time
I learned much on the various programs presented
The Institute should be longer so that one can actually carry out part of a research problem from data he has already collected.

August 1967 Adapted from the evaluation instrument for research institutes of the University of Wisconsin.
INSTITUTE EVALUATION FORM

1. Of what value do you think this institute training has been for you as a counselor?
   Very valuable 64%  Valuable 36%  Little Value  No Value

2. Do you expect that you will be more capable of analyzing student data after the training experience?
   Yes 92%  No 8%

3. Do you expect that you will be more capable of planning educational experiments after the training experience?
   Yes 96%  No 4%

4. Do you think that remote terminals would be valuable tools to have in the counseling areas of your school?
   Very Valuable 64%  Valuable 32%  Little Value  No Value

5. Would their availability in counseling offices increase the counselors data analyses and research capabilities?
   Greatly increase 60%  Increase 36%  Decrease 4%  No Difference 4%

6. Would their availability increase counselors motivations to do local research?
   Greatly increase 56%  Increase 36%  Decrease 4%  No Difference 4%

7. In your estimation are counselors adequately trained in the MS program to do research?
   Yes 16%  No 84%

8. In your estimation are most counselors after completing the MS program knowledgeable in:
   Research design  Yes 16%  No 84%
   Statistics  Yes 80%  No 20%
   Data Processing  Yes 20%  No 80%
   PERT Processing  Yes 16%  No 84%
   Research reporting  Yes 36%  No 64%

9. Do you feel that a functional knowledge in these areas is important for counselors in today's schools?
   Very important 68%  Important 24%  Of Little Importance 8%  No Importance

10. How would you rate the information and review sheets that were distributed during the institute?
    Very Good 60%  Good 40%  Fair  Poor  Very Poor

-12-
11. Did you feel that the time available to you on the remote terminals was sufficient?
   Yes 76% No 24%

12. Were the demonstrations on the use and application of equipment satisfactory?
   Excellent 56% Good 44% Fair Poor Very Poor

13. Were the demonstrations on the use of equipment appropriately presented in relation to the time when program writing and computer accessing activities were encountered?
   Yes 86% No 14%

14. Do you feel that you received adequate personal instructional attention during the institute?
   Yes 66% No 34%

15. Do you feel that the institute was of adequate duration?
   Yes 52% No 48%

   If no

   It should be extended by one week 24% 2 weeks 12%
   more than 2 weeks 20%

   It should be shortened.
<table>
<thead>
<tr>
<th>Statement</th>
<th>Agree (%)</th>
<th>Disagree (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The purpose of the Institute was clear to me</td>
<td>(96%)</td>
<td>(4%)</td>
</tr>
<tr>
<td>2. The objectives of this Institute were not realistic</td>
<td>(16%)</td>
<td>(84%)</td>
</tr>
<tr>
<td>3. Specific purpose made it easy to work efficiently</td>
<td>(92%)</td>
<td>(8%)</td>
</tr>
<tr>
<td>4. The participants accepted the purpose of the Institute</td>
<td>(100%)</td>
<td>( )</td>
</tr>
<tr>
<td>5. The objectives of this program were not the same as my objective</td>
<td>(24%)</td>
<td>(76%)</td>
</tr>
<tr>
<td>6. I didn't learn anything new</td>
<td>( )</td>
<td>(100%)</td>
</tr>
<tr>
<td>7. The material presented was valuable to me</td>
<td>(100%)</td>
<td>( )</td>
</tr>
<tr>
<td>8. I could have learned as much by reading a book</td>
<td>( )</td>
<td>(100%)</td>
</tr>
<tr>
<td>9. Possible solutions to my problems were considered</td>
<td>(84%)</td>
<td>(16%)</td>
</tr>
<tr>
<td>10. The information presented was too elementary</td>
<td>(4%)</td>
<td>(96%)</td>
</tr>
<tr>
<td>11. The instructors really knew their subject</td>
<td>(100%)</td>
<td>( )</td>
</tr>
<tr>
<td>12. I was stimulated to think objectively about the topics presented</td>
<td>(96%)</td>
<td>(4%)</td>
</tr>
<tr>
<td>13. New acquaintances were made which will help in future research</td>
<td>(100%)</td>
<td>( )</td>
</tr>
<tr>
<td>14. We worked together as a group</td>
<td>(100%)</td>
<td>( )</td>
</tr>
<tr>
<td>15. We did not relate theory to practice</td>
<td>(16%)</td>
<td>(84%)</td>
</tr>
<tr>
<td>Statement</td>
<td>Agree</td>
<td>Disagree</td>
</tr>
<tr>
<td>--------------------------------------------------------------------------</td>
<td>-------</td>
<td>----------</td>
</tr>
<tr>
<td>16. The sessions followed a logical order</td>
<td>(92%)</td>
<td>(8%)</td>
</tr>
<tr>
<td>17. The schedule was too fixed</td>
<td>(     )</td>
<td>(100%)</td>
</tr>
<tr>
<td>18. There was very little time for informal conversation</td>
<td>(     )</td>
<td>(100%)</td>
</tr>
<tr>
<td>19. I did not have the opportunity to express my ideas</td>
<td>(4%)</td>
<td>(96%)</td>
</tr>
<tr>
<td>20. I really felt a part of this group</td>
<td>(100%)</td>
<td>(     )</td>
</tr>
<tr>
<td>21. My time was well spent</td>
<td>(100%)</td>
<td>(     )</td>
</tr>
<tr>
<td>22. The Institute met my expectations</td>
<td>(96%)</td>
<td>(4%)</td>
</tr>
<tr>
<td>23. I received no guide for further action</td>
<td>(4%)</td>
<td>(96%)</td>
</tr>
<tr>
<td>24. Too much time was devoted to trivial matters</td>
<td>(4%)</td>
<td>(96%)</td>
</tr>
<tr>
<td>25. The information presented was too advanced</td>
<td>(4%)</td>
<td>(96%)</td>
</tr>
<tr>
<td>26. The content presented was not applicable to the work I do</td>
<td>(16%)</td>
<td>(84%)</td>
</tr>
<tr>
<td>27. Institutes of this nature should be offered again in the future</td>
<td>(100%)</td>
<td>(     )</td>
</tr>
<tr>
<td>28. Institutes such as this will contribute little to educational research and development</td>
<td>(     )</td>
<td>(100%)</td>
</tr>
<tr>
<td>29. The consultants speeches were appropriate</td>
<td>(96%)</td>
<td>(4%)</td>
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August 1967 Adapted from evaluation form of Ohio State University.
THE SECOND COUNSELOR RESEARCH TRAINING INSTITUTE

Sponsored by ALTOONA AREA SCHOOL DISTRICT in cooperation with USOE
OBJECTIVES

Today's counselors are custodians of large amounts of school and student data—data which must be organized, analyzed, studied, and reported. Counselors are also generally charged with research responsibilities in the schools they serve. This research, endowed with many dimensions, is not limited to mere data analysis activities, but it embraces the designing, planning, and evaluation of educational experiments.

Most research activities can be enriched and assisted by using computer services in the evaluation and analysis processes. Fortunately, many schools are availing themselves of computer installations which can assist counselors and other educators in research and data analysis endeavors.

Many schools, and regions of the state, however, have no computer services available to them, yet schools and counselors would profit from studies of local and regional data. This Institute, therefore, is designed to help counselors—in schools with or without computers—to develop pertinent research skills, to analyze the masses of data available to them and to better utilize available services and techniques in planning educational experiments.

The participants in the Institute should have, on completion of the Institute experience, the following understandings and competencies:

1. An operational understanding of data processing equipment including the key-punch, sorter, collator, reproducer and interpreter.

2. An understanding of the processes involved in the preparation of simple statistical computer programs.

3. An understanding of the methods of gaining access to any available computer using either card input or punched tape remote terminals.

4. A more complete understanding of the use and application of the concepts of central tendency, standard deviation, correlation, chi-square, and t-tests of significance.

5. An introduction to the concepts of Program Evaluation and Review Techniques (PERT).

6. An introduction to experimental research designs and their associated invalidities.

7. An introduction to the ERIC system and its value in research and data review activities.

THE PROGRAM

The Institute will be conducted in the computer center of the Altoona Area School District. Each enrollee will gain some hands-on experience in the use of the computer and its peripheral equipment.

Particular emphasis will be devoted to the types of regional analysis endeavors in which counselors can engage in cooperation with other school districts.

It is expected that consultant presentations, appropriate to Institute concerns, will be made by research and counselor education personnel from the Pennsylvania and Ohio State Universities, and from one of the ERIC Clearing Houses.

The sessions will run Monday through Friday, 8:30 a.m. to 4:00 p.m., August 5 to 16, inclusive.

Each trainee will be expected to attend all morning and afternoon sessions. Opportunities for evening sessions will be available to those interested.

CRÉDITS

No credit for the Institute will be obtained from the Pennsylvania State University.

STIPEND

Each participant will be granted $75.00 for his expenses during the Institute.
large data files in the lowed ed to emva-

diches in. For them can in re-

state, available selors and re-

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using either card input or punched tape remote terminals.

4. A more complete understanding of the use and application of the concepts of central tendency, standard deviation, correlation, chi-square, and t-tests of significance.

5. An introduction to the concepts of Program Evaluation and Review Techniques (PERT).

6. An introduction to experimental research designs and their associated invalidities.

7. An introduction to the ERIC system and its value in research and data review activities.

THE PROGRAM

The Institute will be conducted in the computer center of the Altoona Area School District. Each enrollee will gain some hands-on experience in the use of the computer and its peripheral equipment.

Particular emphasis will be devoted to the types of regional analysis endeavors in which counselors can engage in cooperation with other school districts.

It is expected that consultant presentations, appropriate to Institute concerns, will be made by research and counselor education personnel from the Pennsylvania and Ohio State Universities, and from one of the ERIC Clearing Houses.

The sessions will run Monday through Friday, 8:30 a.m. to 4:00 p.m., August 5 to 18, inclusive.

The Institute will accommodate 25 participants selected from all applicants meeting the following stated requirements:

Applicants must—

1.—have a Master's Degree in counseling and guidance.

2.—be presently employed as full-time elementary or secondary school counselors.

3.—hold state certification as a guidance counselor in the state in which they are employed.

4.—be employed in school districts in Pennsylvania or in out-of-state school districts within a radius of 200 miles of Altoona, Pennsylvania.

5.—have completed at least one graduate-level course in statistics. (Evidence to this fact may be a college transcript or a letter from the applicant's major college advisor.

CREDIT

No graduate credit will be given for the Institute as the school district is not an institution of higher education. A certificate of training will be presented upon completion of the Institute.

STIPENDS

Each participant will be paid a stipend of $75.00 per week, plus $15.00 per week for each dependent throughout the Institute.

Travel reimbursement will be made at the rate of $.08 per mile for one round trip between the participant's place of residence and Altoona, Pa. Participants will pay no Institute fees.
LIVING ACCOMMODATIONS

Participants will be housed in the residence halls of the Altoona Campus of The Pennsylvania State University at the following rates—

Single room $45.50
Double room $39.00 per person

Above rates are for the duration of the Institute. Meals will not be available at the Altoona campus.

APPLICATIONS

Applications from those meeting the eligibility requirements will be accepted immediately. Applications will be processed as soon as received and all applicants will be notified of the action taken on their application by letter postmarked before July 19, 1968.

For application blanks write to The Director of the Counselor Research Training Institute:

Thomas E. Long, Director
Research & Counseling Services Dept.
Altoona Area School District
Altoona, Pennsylvania 16602

Discrimination Prohibited

Title VI of the Civil Rights Act of 1964 states: No person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance. Therefore, Research Training Institutes, like every program or activity receiving financial assistance from the Department of Health, Education and Welfare, must be operated in compliance with this law.
APPLICATION FORM
SUMMER RESEARCH INSTITUTE
Research Department, Altoona Area School District August 5-August 16, 1968

Please type or print in ink

Name
(Last) (First) (Middle or Maiden)

Home Address
(Number) (Street) (City) (State) (Zip)

Office Address

Address for Reply (Please check one): ___ Home ___ Office

Phone
(Area Code) (Home) (Office)

Social Security No.

Date of Birth Sex Marital Status No. Dependents

Present Employer

Title of your Position

Describe briefly your primary work assignments:

Immediate Supervisor:
Name Address

Title

Please have your supervisor complete the enclosed reference form and return it directly to the address printed at the bottom of the form.

Employment Record -- Last five years only, beginning with present position.

Name and Address of Employer Nature of Activity From To


Colleges and Universities attended

<table>
<thead>
<tr>
<th>Name of Institution</th>
<th>Dates Attended</th>
<th>Degree</th>
<th>Major</th>
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List the courses you have taken in measurement, research, and statistics

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<tr>
<th>Course Title</th>
<th>Graduate (G) or Undergraduate (U)</th>
<th>No. of Semester Hours</th>
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NOTE: Evidence of successful completion of at least one graduate-level course in statistics must be provided. Evidence may be a transcript or a letter from your college graduate advisor. Please attach evidence to this application.

List the research areas or topics of major importance in your current position.

How do you plan to apply the training from this institute in your professional position as a counselor?

Please offer any information concerning your interests, responsibilities, reasons, for applying, etc., which might assist the committee in reviewing your application.

I certify that the statements made by me on this application are true, complete, and correct to the best of my knowledge.

Signature of Applicant ___________________________ Date __________

Please return completed application to: Thomas E. Long, Director, Counselor Research Training Institute, Altoona Area School District, Sixth Avenue and Fifteenth Street, Altoona, Pennsylvania 16603
ELIGIBILITY CERTIFICATION SHEET

Applicant should complete, sign, and return with application forms.

1. Are you presently employed as a full-time elementary or secondary school counselor?
   - Yes
   - No

2. Are you employed in a school district located in the State of Pennsylvania or in an out-of-state school located within a radius of 200 miles of Altoona, Pennsylvania?
   - Yes
   - No

3. Do you have an earned master's degree in counseling and guidance?
   - Yes
   - No

4. Do you hold state certification as a guidance counselor in the state where you are employed?
   - Yes
   - No

5. Have you successfully completed at least one graduate course in statistics? (As stated elsewhere, evidence to this fact must be presented with the application.)
   - Yes
   - No

6. If selected, will you complete the periodic follow-up instruments which would be sent to you over the next few years?
   - Yes
   - No

________________________
Signature

Housing Needs Anticipated:

Please indicate below what your housing needs will be. Available accommodations will include:

1. Single room
2. One-half double
3. Double

Participants will be housed at the Altoona Campus of the Pennsylvania State University.

At present, does your school district have access to a computer?

- Yes
- No
REFERENCE FORM
SUMMER RESEARCH INSTITUTE

Research Department, Altoona Area School District August 5 - August 16, 1968

Name of Applicant ____________________________ Applicant's position ____________________________

TO BE COMPLETED BY APPLICANT'S SUPERVISOR

How long have you known the applicant? _______________________________________________________

Please describe briefly the applicant's strongest capabilities in performing designated professional duties.

Please indicate any contribution that you feel the applicant could make as a participant in a research training institute.

We would appreciate any additional comments you wish to make.

_________________________________________________________________________________________

Signature of Applicant's Supervisor ____________________________ Title ____________________________

School Address ____________________________________________ Date ____________________________

Please return completed form to: Thomas E. Long, Counselor Research Training Institute, Altoona Area School District, Sixth Avenue and Fifteenth Street, Altoona, Pennsylvania 16603
Dear

The selection of candidates for the Counselor Research Training Institute has begun. I am happy to inform you that you have been selected as a participant.

It will be necessary for you to decide and inform me if you accept this nomination no later than one week from the date of this letter; otherwise, this nomination will be extended to an alternate.

As stated in the announcement brochure, all participants will be housed in residence halls of the Altoona Campus, Pennsylvania State University; and all participants will be expected to attend every session of the institute.

Your nomination and acceptance is contingent upon these requirements.

Please complete the enclosed form and return it to me as soon as possible, but before one week from this letter's date.

The nominees thus far represent trained, skilled and experienced individuals. It appears that we will have many more applicants than positions to fill.

We look forward to your arrival in Altoona and your participation in the research sessions.

Sincerely yours,

Dr. Thomas E. Long, Director
Research and Counselor Training Institute

July 2, 1968
COUNSELOR RESEARCH TRAINING INSTITUTE
(Sponsored by Altoona Area School District in cooperation with USOE)

This form must be returned by one week from the date of your nomination letter to:

Dr. Thomas E. Long
Director of Research and Counseling Services
Altoona Area School District
1415 7th Avenue
Altoona, Pennsylvania 16603

( ) I accept the nomination to be a participant in the Counselor Training Institute in Altoona, Pennsylvania, August 5 to 10, 1968.

Not counting myself, I have _____ dependents.

Please reserve for me:

( ) single room at $45.50
( ) ½-double room at $39.00
( ) double room at $78.00

Dependents, if any, who will accompany me include:

( ) wife/husband
( ) _____ sons
    no.
( ) _____ daughters
    no.

( ) I decline the nomination.

__________________________
Signature and Date
Dear Sir:

Today, The Second Counselor Research Training Institute was completed in Altoona. This institute was sponsored by the United States Office of Education. We had as one of the Training participants one of your employees,

We were very happy to have participate, and we hope this research training experience proves to be valuable in work.

Best wishes for a successful school year.

Sincerely yours,

Dr. Thomas E. Long
Institute Director
In this research training institute the participants were exposed to the use of computers and data processing equipment in research activities. They were also exposed to program writing and data assembly techniques so they might access computers via card and punched tape inputs. Punched-tape training included the use of remote terminal equipment. In the training experience the counselors were also exposed to the concepts of research design and the ERIC system.

The specific objectives of the Institute were to provide the participants with the following understandings and competencies:

1. An operational understanding of data processing equipment including the key-punch, sorter, collator, reproducer, and interpreter.
2. An understanding of the processes involved in the preparation of simple statistical computer programs.
3. An understanding of the methods of gaining access to available computers using either card input or punched-tape remote terminals.
4. A more complete understanding of the use and application of the concepts of central tendency, standard deviation, correlation, chi-square, and t-tests of significance.
5. An introduction to the concepts of Program Evaluation and Review Techniques (PERT).
6. An introduction to experimental research designs and their associated invalidities.
7. An introduction to the ERIC system and its value in research and data review activities.