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## ABSTRACT

This report describes the rationale, objectives, organization, and activities of each of four alternative models: Model A--Traveling Training Institutes, Model B--Intensive Pre- and Post-Session Courses, Model C--Annual Meeting Training Activities, and Model D--Development of Instructional Packages. These models were developed as a result of a grant to develop new ways in which scientific research associations can create coordinated, continued, and more systematic approaches to research training. The purpose of Model A is to design a traveling research training institute in which a particular course directed by scholars with a particular expertise will be available in different geographical locations three or four times a year. The intent of Model B is to make a concentrated attempt to reach those individuals defined broadly as educational researchers. Model C is designed to examine whether successful training could be conducted during the annual meeting of the American Educational Research Association (AERA). Model D is designed to test the possibility of preparing exportable training materials, which would involve a middle range of expenditures and validation that capitalizes on the experience of AERA in conducting and evaluating instructional training sessions. Reports on the evaluation data for each model, and for the project as a whole, are included. (PD)

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FINAL REPORT

PROJECT NO. RO 2 0586  
GRANT NO. OEG - 0 - 72 - 1251

DEVELOPMENT OF TRAINING MODELS FOR EDUCATIONAL RESEARCH: A CONCEPTUAL  
SCHEME FOR A PROFESSIONAL ASSOCIATION

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R.A.D.

W.J.P.

W.J.R.

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## Introduction

The need to improve the training of persons who can systematically work toward solutions of major educational problems is widely recognized within the academic community. There is an increasing demand for personnel to assess the status of students and their backgrounds, to design new and imaginative instructional programs and materials, to evaluate existing and newly introduced courses of study, to assess the quality of the education offer, and to interpret and plan the utilization of research findings.

A variety of evidence indicated, however, that many persons performing in research and research-related roles are severely handicapped by their lack of skill or knowledge in relation to substantive and methodological requisites relevant to their areas of investigation. Moreover, individuals initially well-trained to engage in their respective research activities are rapidly faced with obsolescence, for this field appears almost devoid of viable programs designed to keep such persons abreast of new developments in their areas of specialization.

Therefore, the principal objective of this grant was to develop new ways in which scientific research associations can create coordinated continued, and more systematic approaches to research training. Research, for the purposes of this grant, was defined in its broadest sense to include both development and evaluation. The conceptual framework and organizational procedures by which a professional organization (AERA) performed this task not only serves as a prototype for other institutions, organizations, and agencies to develop creative modes of training, but generated new knowledge about training and retraining of research and

research related personnel in education.

The types of training activities initiated by AERA were designed to (1) prevent potential obsolescence among educational researchers with respect to developed methodology and technology, (2) improve the skills and knowledge of persons involved in research and development roles who previously received only minimal training, and (3) meet the needs of researchers outside the disciplines of education and psychology who are increasingly turning their attention to the improvement of educational quality. The intent of this project, however, was not to enter in competition with institutions or organizations that can best perform certain training functions, but rather to continue and expand the training activities which a professional association is best able to operate.

Four alternative training formats or models were selected as being especially relevant to achieve the objectives of the grant. They were: traveling training institutes, intensive pre-session courses, annual meeting training activities and the development of instructional packages. Each of these models is described in the following sections of this report. Evaluation data for each model, and for the project as a whole, are reported in a separate section.

As a major initial step toward implementation of the grant the Association's Standing Committee on Research Training (an outgrowth of the 1969-71 AERA Task Force on Training Educational Research and Research-Related Personnel) convened in Los Angeles on February 20-21, 1972. The committee was composed of W. James Popham, University of California, Los Angeles, Chairman; Jason Millman, Cornell University; Blaine Worthen,

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University of Colorado; Robert Morgan, Florida State University; David Merrill, Brigham Young University; Frank Farley, University of Wisconsin; and Fran Byers, Student Representative.

The chief concern of the Committee during that meeting was the development of an organizational structure, irrespective of specific personnel, that would produce an active, ongoing training enterprise. After extensive deliberations, a unique relationship between the specialists on AERA's Central Office staff and the representatives of the educational research community who served on the Research Training Committee was agreed upon. This organizational structure incorporated and capitalized on the expertise of the individuals involved, with a member of the Committee directing each of the four training models. The specific assignments were as follows:

Model A - Traveling Training Institutes, Jim Mitchell

Model B - Intensive Pre- or Post-Session Courses, Frank Farley

Model C - Annual Meeting Training Activities, Jay Millman

Model D - Development of Instructional Packages, Dave Merrill

Evaluation - Models A,B,C, and the follow-up, Blaine Worthen

The director of each model assumed the responsibility for its budget, time schedule, implementation, and final report. Although the individual directors of the four models were given considerable latitude in the implementation and operation of their model, the Committee retained responsibility for overseeing the planning, design, operation, evaluation and dissemination of the objectives and/or products of the project. In this regard, the Committee met on six different

occasions during the period of the grant. The overall coordination of the study was the responsibility of the principal investigator, Richard A. Dershimer, Executive Officer of AERA. Administrative supervision was furnished by AERA's Deputy Executive Officer and co-director of the project, William J. Russell. Conceptual and substantive supervision was the responsibility of the Chairman of the Research Training Committee and co-director of the project, W. James Popham.

The following four sections of the report detail the rationale, objectives, organization and activities of each Model. Section 5 contains the evaluative data of each Model and for the project as a whole. The sections are individually authored by the model's director. A summary and the conclusions are contained in the final section of the report.

James V. Mitchell, Jr.

The Rationale. The rationale underlying Training Model A - Traveling Training Institutes - was described as follows in the original proposal:

The record of success enjoyed by AERA's Research Training Sessions at its annual meeting suggests that replication of this format may be the optimum model for transmitting certain skills and knowledge. However, the limited number of participants who find it possible to attend the Annual Meeting, or who can be accommodated by such training sessions creates a problem which finds its most logical solution in Model A of this proposal. Specifically, the formation of a traveling research training institute is proposed in which a particular course directed by scholars with a particular expertise, will be available in different geographical locations three or four times a year.

It is clearly evident that this model will significantly increase the opportunity and facility with which a number of individuals could update their research, development, or evaluation skills. Prior evidence indicates that training offered in such a manner would be widely received among research and research-related personnel in the field who are unable to attend one of the annual presessions. Moreover, in this era of shrinking educational budgets, it is increasingly necessary to reduce the cost of instruction to individuals. Regional training sessions represent one mechanism by which this objective can be accomplished.

The determination of the validity and utility of the program that was generated from this rationale must be made principally on the basis of two sources of information: (1) a description of how this rationale was implemented in practice - the plans that were made and the procedures that were followed, and (2) the evaluation data that were secured about the several Institutes that were offered in the program. The present section does not consider the results of the evaluation studies, which will be discussed in a later section, but concentrates instead on the plans and choices that were made and the procedures which were followed.

This section of the report, then, will consider: (1) criteria for the selection of institute topics; (2) procedures for choosing the topics and personnel for the institutes; (3) coordination between the Research Training Committee and the AERA central office and between the director of Model A and the AERA central office; and (4) decisions that were made with respect to how evaluation of the institute was to be conducted.

Criteria for the Selection of Topics. In choosing topics for the institutes there were certain criteria or guidelines that served to focus the committee's thinking.

(1) Since the proposal was concerned with the development of "Training Models" for educational research, the institutes should serve a training function and should be oriented toward skill development of some kind; participants should be able to do something as a result of their training that they could not do before or could not do at the same level of competency; (2) The content of the institute should be relevant to the present needs and trends of the field of educational research and the people within it; and the relationship of that content to a current training need should be demonstrable; (3) Other things being equal, the content of such institutes should be of general, not esoteric interest, and the drawing power of an institute with such content should be great enough to justify the considerable planning, effort, and expense involved.

Procedures for Choosing Topics and Personnel. There was general agreement, at the very beginning of the program, that it would be the entire membership of the Research Training Committee that would apply these criteria and select the topics and instructors for the institutes. Historically, there seemed to have been two procedures that were used in making these choices. During the first phase the Committee discussed at length possible topics and instructors and ultimately agreed that certain well-known professionals should be extended invitations to conduct institutes in certain generally defined areas; this approach resulted in invitations extended to Michael Scriven and Daniel Stufflebeam to offer an institute on evaluation and to Melvin Novick to offer an institute on Bayesian statistics. The Scriven-Stufflebeam institute was called "Alternative Conceptions of Evaluation" and the Novick institute was "Bayesian Statistics and Interactive Computing Systems." A conscious attempt was made to secure professionals of some considerable reputation who were acknowledged leaders in their fields, would have great drawing power, and who could be counted upon to do justice to their topics. Such people, however, tend

to be very very busy, and although our first efforts to get the people we wanted were attended by no small measure of success, our subsequent efforts to get the "stars" of our field were not always as successful.

This led to the second phase of the selection procedures. It was decided by committee members that the second group of topics and instructors would be selected on a competitive basis, rather than extending invitations to people designated beforehand. Specifically, it was agreed that the central office would send letters to directors of successful previous AERA presessions and invite them to submit a proposal for a traveling research training institute. The Research Training Committee would then examine carefully the proposals submitted and decide which should be funded. This procedure resulted in the submission of some excellent proposals, and the committee elected to fund several of the best. The complete list of institutes that were offered in the program is presented later.

In retrospect it seems that both of these procedures were defensible ones, and especially in the order of their occurrence for this program. Obtaining the services of the most reputable men the field has to offer, is worth the effort if it only results in the meeting of a few such luminaries. Selecting others on a competitive basis from a pool of demonstrably successful pre-session directors seems equally effective as a means of obtaining the services of very able and talented people who may not (or not yet) have the social visibility of the "stars" but who have very important contributions to make.

Relationship of the Central Office to the Committee and Director. Throughout the project the coordination of efforts between the AERA central office and the Research Training Committee and between the central office and the various directors of the training "models" was considered to be a most important aspect of the experimentation, both conceptual and organizational, that was an inherent part of the total program. The Research Training Committee was most fortunate in having the services of Dr. William Russell of the AERA central office to provide the administrative and organizational services that were essential to the success

of the project. Dr. Russell was also very sensitive to the role conceptions and various attitudes that can exist in any setting defining a professional membership-central office relationship, and this, combined with his facility for easy working relationships, assured his effectiveness.

Early in the project it was decided by the committee that each of the training "models" would have a director, and that the director would be a member of the committee. The committee would make general decisions on policy, the director of the training model would attempt to implement these policy decisions in his area, making those related judgments and decisions, mostly administrative, that were necessary to implement those decisions effectively, and the central office representative would take the organizational and administrative steps to make the program operational. The director of each training model was supposed to consult with the chairman of the Research Committee on any matters considered to be policy, and with the central office representative on any matters considered essentially administrative. Since the relationship between policy and administration was a close and interlocking one, in practice it was the committee chairman, the director, and the central office representative who often consulted together and made some of the decisions necessary to implement policy.

In the case of the Traveling Research Training Institutes the director's role had some features of a "middleman" role. Once the committee had made certain decisions about topics and instructors, it was his responsibility to contact those chosen to explain the program and extend an invitation to participate. If those chosen could not participate, or if other problems arose, the director consulted with the committee chairman and the central office representative, or, in certain instances, returned to the committee for further direction. These organizational relationships worked reasonably well and could be recommended to others,



especially if there was concern on the part of an organizational membership that control and implementation of policy reside securely with the membership. If this is not a matter of great moment, however, it is probably simpler organizationally, more economical of time, and more facilitative of coordination, if the functions of the director's "middleman" role are assigned to the central office.

Procedures for Evaluation. Evaluation was considered to be an integral part of the program from its inception, and the only question was how it was to be effected. Originally it was conceived that the directors of the training models would have major responsibility for the evaluation of their area, with consultant help from evaluation specialists, but later in program development it was felt that it would be best to have an evaluation specialist conduct the evaluations of all four training models, with input from directors as required. Dr. Blaine Worthen of the Research Training Committee, an acknowledged expert in evaluation, was asked by the committee to assume this role.

In the case of the Traveling Research Training Institutes, it was decided that both formative and summative evaluation procedures should be applied to the institutes, and that each session of an institute should have an on site observer who could provide immediate feedback to the instructor(s) and input for the formative evaluation procedures. Since there were two or three sessions for each institute, earlier evaluative results could also be regarded as formative data for later presentations of the institute. Each session of each institute was subject to a thoroughgoing evaluative analysis, and the results of these evaluations were presented in report form. A summary of evaluation results is presented in another section of this final report.

Descriptive Data on the Institutes Offered. A listing of the sessions of all institutes offered, the dates and places of these sessions, and the instructors is included in the evaluation section of the report and in the appendix.

## MODEL B: ANNUAL MEETING PRESESSIONS

Frank H. Farley

AERA's considerable history of offering presessions and postsessions at its annual meetings indicated that successful as the sessions were, they largely neglected audiences often in need of training in educational research. Therefore, the intent of Model B was to make a concentrated attempt to reach individuals beyond the stereotyped AERA member and audiences beyond those which normally participate in AERA sponsored training sessions. Thus the new presessions, held in conjunction with the Association's annual meeting, were to be specifically designed for audiences very broadly defined as educational researchers.

Proposals were solicited for this model from prospective directors by mechanisms identical to those used for the Association's traditional pre-session-postsession program. The criteria used by the committee in selecting proposals consisted of: (a) demonstrated competency of the director(s) and instructional staff; (b) relevance of course content; (c) development of explicit objectives; (d) instructional organization of the session; and (e) expected appeal to a wide and relevant audience. On the basis of the proposals received, the committee selected two training sessions to initiate Model B. They were: "Research on Reading Acquisition: With an Emphasis on Deprived Populations" directed by S. Jay Samuels, University of Minnesota, and "Computer Managed Instruction" directed by Frank B. Baker, University of Wisconsin. Descriptions of these sessions are included in the appendix. Unfortunately, the latter session was cancelled due to an insufficient number of advance registrants.

The sessions were publicized in the same manner as the traditional

presessions and postsessions that were offered at the annual meeting in New Orleans. The registration fee schedule of \$45 per session day for AERA members and \$50 per session day for non-AERA members, was assessed participants of both the Model B session and the traditional presessions and postsessions.

Although the pre-session that was offered in this model was generally considered successful, (a detailed evaluation of the session is included in a subsequent section of this report) the model in general was not viewed as achieving its full potential. Upon reflection about this model one can speculate about a number of variables that may explain the less than enthusiastic support or participation that the sessions received. However, one of the simplest and most logical explanation that has been advanced in retrospect is that considering the sessions were directed principally at broad and new audiences of educational researchers who do not necessarily attend AERA's Annual Meeting, offering the sessions in conjunction with AERA's Annual Meeting was not as positive an inducement as it would have been if the sessions were conducted at the professional meeting of other relevant organizations. Such a hypothesis obviously doesn't preempt other variables (fee schedule, publicity mechanisms, appeal or relevance of the selected sessions, etc.) from consideration of the overall efficacy of this model. Such comments and observations, however, are reserved for a later section of the report.

## Model C; Annual Meeting Training Activities

Jason Millman

Characteristically, scientific, professional society meetings are devoted to research reporting, inspirational messages, social interactions and the like. Training of professionals is seldom consciously performed at such meetings. The purpose of Model C of this grant was to examine whether successful training could be conducted during the annual AERA meeting.

The annual meeting was seen as an especially suitable time for such training activities for several interrelated reasons. First, a large number of potential trainees would already be at the training site by virtue of their attendance at the annual meeting. Second, the time of the annual meeting permits maximum utilization of the "human library" resource, i.e., the scholar who attends or participates in the annual meeting. The most able scholars are frequently the most busy and might not be available to provide such training activities at other times. Third, potential trainees are also busy and might not be able, for example, to take off the additional time if training activities were conducted sequentially (but not concurrently) with the annual meeting.

There exists a major drawback to holding training activities during the annual meeting. The annual meeting is a busy time for most participants, for there are already a multitude of activities competing for their time. It is for this reason that the three training variations conducted at the annual meeting were designed to be (a) physically accessible to the participants, (b) of relatively short duration, and (c) available either at several times or during times thought less likely to conflict with other attractions.

Three variations were chosen: (a) minicourses, (b) conversational hours, and (c) exhibits of self instructional materials. Each of these variations will be described under the headings: rationale, solicitation and selection of trainers or products, and publicity. The evaluation of these efforts, however, is contained in a later section of this report.

#### MINICOURSES

##### Rationale

For many years AERA has engaged in offering training courses of two to five days. Attendance at such sessions speak to their acceptability. It seemed only natural, therefore, to provide such a mode of training during the annual meeting -- shortened, of course, to a few hours in length.

There was concern, however, among members of the Research Training Committee that such short courses might be hard to distinguish from information presentations offered as part of the regular annual meeting program. Partially for this reason, and partially because of the objective of this research grant, great emphasis was placed on the importance of skill improvement. This emphasis was communicated in the call for proposals.

The purpose of the sessions will be to transmit specific skills in research, development, and evaluation to participants rather than to carry on a general discussion.... Individuals interested in serving as instructors should prepare a short statement specifying what the participants will be able to do by virtue of attending the instructional session. The intended skills to be developed should be identified in as specific terms as possible. Educational Researcher, May 1972, p. 19.

### Solicitation and Selection of the Minicourses

Twenty-four proposals were received by Model C director, Jason Millman, by the deadline date of July 15, 1972. All 24 proposals were circulated by mail and rated independently by seven members of the Research Training Committee according to the following scale.

1. I think this proposed minicourse should be given serious consideration.
2. I'm not sure about this minicourse and would be willing to be persuaded either way (in or out).
3. My vote on this proposed minicourse is NO.

The Committee members met on July 27 and 28 in Chicago and, after due consideration of the criteria, selected the four proposals with the highest ratings.

Criteria for selection explicitly agreed upon by the Committee members were: (a) expected draw (the minicourses were intended to be self-supporting), (b) potential for developing specific skills, (c) identification of skills, (d) balance with other offerings, and (e) avoidance of overlap with pre-session offerings. In addition, other criteria included: (f) importance of content, (g) feasibility of the skills being acquired in the time allotted, (h) potential quality of instruction, and (i) competence of the instructor(s).

A description of the selected minicourses is provided in Appendix C. The course by Leonard Marascuilo was subsequently cancelled because of the illness of Professor Marascuilo at the time the course was scheduled to be held.

### Publicity

A call for minicourse proposals was issued in the May 1972 issue of Educational Researcher. (See Appendix C ) In addition, letters were sent to a large number of previous directors of AERA training sessions encouraging them to submit proposals for minicourses. Reminders of the proposal deadline appeared in the June and July issues of Educational Researcher.

Once the minicourses were selected, descriptions appeared in the Educational Researcher (see Appendix C ), in the Annual Meeting Program, and in a flyer widely circulated at the convention (see Appendix C ).

### CONVERSATIONAL HOURS

#### Rationale

It was believed by the Research Training Committee that one of the most valuable ways young researchers could improve their research would be to discuss their proposed research efforts with prominent scholars in their respective areas of research. In spite of the potential advantage to the few individuals who would be recipients of such "tutoring", such one-on-one training was seen as neither feasible nor efficient. Consequently, it was decided that group conversations would take place between the prominent scholar and the less established researchers. Further, in an effort to simulate some of the characteristics of a tutoring session, the less established researchers were encouraged to submit directly to the senior researcher, prior to the annual meeting, a one- or two-page letter indicating the topics they would like discussed. (See Appendix C ).

The conversational hours were designed to differ from graduate students seminars in two ways: the conversational hours were open to all participants at the annual meeting, not just graduate students, and, more importantly, it was intended that the discussion would be focused on the specific concerns previously communicated to the conversational hour leaders rather than on general issues.

#### Solicitation and Selection of Conversational Leaders

It was originally intended to select the conversational hour leaders from among the more frequently mentioned researchers nominated on special forms printed in the Educational Researcher. (See Appendix C). However, only four nominations were received. Therefore, in consultation with Committee chairman, Popham, Model C director Millman invited four individuals having high visibility in AERA. (Appendix C contains an example of the letter of invitation and charge to the conversational leaders.) The four individuals contacted agreed to participate. Their names and areas of expertise to be discussed are listed in Appendix C .

#### Publicity

Nominations for conversational hour leaders were solicited in the May, 1972 issue of Educational Researcher (Appendix C ). Once the leaders were selected, announcements appeared in the Educational Researcher (Appendix C , in the Annual Meeting Program, and in a flyer widely circulated at the convention (see Appendix C ).



## TRAINING EXHIBITS

### Rationale

Largely due to Federal support, R-D-E- training materials were becoming available, but still were relatively unknown to the educational researcher. Although it was hoped that convention goers would spend some time going through the training materials during the annual meeting, it was anticipated that the length of time needed for such an activity precluded use of the materials in the manner intended.

Nevertheless, the exhibits were seen as valuable for the purpose of publicizing their availability and possible adoption for later classroom or self use applications. For this reason, sponsors of the training materials were urged to provide flyers describing the product and informing interested persons how to receive more information or how the materials could be purchased.

At first, it was intended to charge a \$1.00 fee to participants who attended the "study center" (see Appendix C ), but this was dropped and no fee was assessed. A centrally located room in the headquarters hotel, made available in order to encourage maximum utilizations of the study center, was kept open for several hours each day of the annual meeting.

### Solicitation and Selection of Exhibits

A letter (see Appendix C ) was sent to the roughly two dozen directors of projects sponsored by the Research Training Branch of the USOE (now NIE) . Additional letters were sent to approximately six individuals known to have produced training materials.

With one exception, all developers responding positively to the solicitation were invited to participate in the exhibition. (A listing of exhibitors and their products or materials are listed in Appendix C ). The one exception involved a developer who, after consultation with Model C director, Millman, agreed that his product was not a training product and withdrew his request to participate.

A list of Exhibitors and their Training products or materials are listed in Appendix C .

#### Publicity

An announcement of the availability of the exhibits appeared in the Educational Researcher (Appendix C ), in the Annual Meeting Program, and in a flyer widely circulated at the convention. (see Appendix C ).

M. David Merrill

## I. THE CHARGE

a. In early 1972, AERA submitted a proposal to the U.S. Office of Education requesting funds for exploring various training models. One of those approaches was described as follows:

### Model D - Development of Instructional Packages

Any formal "live" instructional course is severely limited by the impossibility of disseminating it to many learners without the presence of participating instructors. To remedy this deficiency, training Model D is proposed to test the possibility of preparing exportable training materials.

In examining alternative approaches in the development of instructional materials, it is apparent that there is a clearly defined continuum of both cost and validation. At the one extreme are the low cost, unvalidated test book materials; at the other extreme are the costly, heavily field-tested, carefully validated instructional materials currently being produced, for example, at the USOE-supported regional laboratories. Part of this proposal's Model D involves a middle range of expenditures and validation which capitalizes on AERA's wide experience in conducting and evaluating instructional training sessions.

Commencing with the currently scheduled April 1972 training sessions, several session directors would be invited to identify and propose for filming one or more training segments, which seem particularly suitable for export to a larger audience. A review panel from the Research Training Committee would evaluate the potential of the resulting proposals in terms of need, appeal, self-contained qualities (i.e., no special prerequisites) and suitability of instructional plan. Two such training sessions would then be scheduled, each involving perhaps two or three discreet 45-60 minute training segments. The directors would subsequently be advised to setup a field test version of the selected segment prior to April, 1972.

Before these field tests are actually conducted, the Research Training Committee will assume the responsibility of reviewing the nature of the training segments, the competencies they were designed to produce, and the means by which they could be evaluated. At the time of the field test, two or more members of the training committee would be present to monitor the effort and to aid in the formative evaluations of the instructional segments. The training participants in the field test would offer suggestions for program modifications, and in addition, their performance in competency measures would aid in the formative evaluation.

After making changes indicated by the field test, the training director and his staff would, in consultation with members of the Research Training Committee, select an appropriate recording medium: eight, sixteen, or thirty-five mm film. Arrangements would then be made for technical support services appropriate to the designated training session segments. In some instances this might involve transporting the participants to a studio; in other cases, the recordings could be made under normal meeting circumstances with augmented local facilities.

After a product evaluation by the Research Training Committee, dissemination channels, both internal and external to AERA, would be employed to bring the product to a wide audience. It is important to note that only two sessions are to be designated for 1972. The experience gained in this venture will undoubtedly lead to an improvement in the model for the 1973 February AERA Annual Sessions. It is anticipated that at least five to ten hours of exportable instructional materials will be prepared. Consistent with the expectation of making research training a self-supporting enterprise, a fee will be assessed for rental or purchase of the instructional materials. In addition to the substantive evaluations of the model, cost accounting of production and marketing will allow financial evaluations of the instructional materials.

Another element of this model might be development of supplementary audiovisual materials to accompany live presentations of training sessions; obviously many sessions would be of much greater instructional value if augmented with multimedia products.

Model D reflects AERA's continued commitment to explore ways in which research training can most effectively be conducted. Its entry into the more sophisticated modes of media presentation is a logical extension of its successful activity in the area of cassette instruction.

b. At the March 1972 meeting of the Standing Committee on Research Training, the various possibilities for implementing this charge from the proposal were discussed. The original intent was to make videotapes of some of the pre and post-sessions at the convention and to offer these videotapes for sale to interested researchers. After some discussion, it was decided to attempt a full-blown instructional development effort in which validated instructional packages were produced for commercial distribution under the auspices of AERA. It was this second approach which was agreed to by the committee.

c. Because of M. David Merrill's membership on the committee, and the fact that Brigham Young University had recently established a major instructional development division, it was decided that he should assume responsibility for his institution in accepting the contract to produce two research training packages. Because this activity was viewed as a professional opportunity, it was agreed that no overhead would be charged by the university and that the packages would be produced on a cost basis with no fee. (Appendix A is a copy of the agreement signed by AERA and BYU)

d. After considerable discussion, it was decided that one of the most successful presentations was that offered by Joe Ward and his associates on linear regression models. Dr. Ward had previously expressed an interest in producing a training package on "Applied Decision Making" for administrators. It was decided to approach Dr. Ward and explore the possibility

of his becoming associated as an author with this project to produce such a package. M. David Merrill was given the assignment to contact Dr. Ward and explore his willingness to serve in this role. This contact was made shortly following the Research Training Committee meeting. Dr. Ward was enthusiastic about the project and agreed to participate for a modest honorarium and travel expenses.

II. THE PLAN FOR BYU

a. Phase I. The project actually got underway in late May of 1972. An advanced graduate student was selected as project director. Contact was made with Dr. Ward and arrangements were made for him to visit the BYU campus. He visited the campus and presented a lecture to the faculty and students of the IR&D Department. This lecture was videotaped for future reference. Dr. Ward also distributed notes that could be used in preparing the content. The project director was to make an outline from the videotapes which was then to be presented to Dr. Ward for his critique. A PhD level faculty member of the Department of Instructional Research and Development was assigned during this Phase I period to serve as an instructional psychologist, consultant, and advisor to the project.

During this phase, the operation at BYU was in what we have come to call "shoe shop" mode. That is, rather than a team of people working on a project, projects were typically assigned to one faculty member, perhaps assisted by a student. In this case, the graduate student project director and faculty instructional psychology advisor were assigned to carry through

with the project. Their task for the summer was to do a content analysis of the material presented by Dr. Ward to develop a formal set of content definitions and examples which could be used in the subsequent development of a training package. A set of materials was submitted to Dr. Ward for his approval in early September.

b. Phase II. During the late summer of 1972, the faculty in the IR&D Department at BYU seriously discussed going to a team approach for instructional development. The personnel in the department were divided into four teams. These teams included an instructional design team, an evaluation team, an implementation team, and a product development team. In addition to these four teams, a given project always included a subject matter author and various packaging specialists represented throughout the Division of Instructional Services at BYU such as the Press, Instructional Television, Motion Pictures, and Instructional Photographics.

Because the AERA project was in its initial stages, it was seen as an excellent vehicle for implementing the team approach. On September 1, therefore, the project was reorganized into a development team. The graduate student originally appointed remained as the project coordinator whose assignment was to shepherd the project through the various team groups. The teams consisted of the PhD level research associates and graduate student research interns, organized as indicated in Table 1. Figure 1 illustrates the planning pert which was used for this project, together with the estimated mandays required for the project. It will be noted that the

project is divided into various phases and each of these phases has been assigned to a team. The graduate student project director was to be the overall project coordinator to assure the adequate communication between teams. Each of the teams were to contribute their relative contribution to the ultimate production of the package. Appendix B contains a somewhat more detailed outline of the original team organization and the description of the function of the various groups. According to the pert, the project should have been finished, ready for evaluation, in time for presentation at the convention in late February.

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 Insert Table 1 & Figure 1 about here  
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### III. THE EXECUTION OF THE PLAN

a. The top half of Figure 2 is the pert chart translated onto a timeline with the due dates indicated at the end of the arrows. Each of the major steps in the team development model are indicated. The starting time for the beginning of that step is indicated by the beginning of the arrow. The content analysis and content specification stage obviously went back into the summer, since that was the effort that was conducted mainly during the "shoe shop" phase of the project.

The bottom half of Figure 2 indicates the actual execution of the plan. There are some noticeable problems in the execution. The first problem is that no formal content specification was ever produced. There was a great deal of content material written up. Most of it, however, remained in the form of notes and relatively unorganized material prepared by the project



director and the faculty instructional psychologist. The material was critiqued by Dr. Ward and much of it approved by him, but it was never organized into a formal document. Therefore, this content analysis is not available for inclusion in this report. Nevertheless, it should be noted that with the introduction of the formal team model, the initial products (the needs and goals document and the systems design document) were produced as scheduled. These constitute Appendix C and Appendix D of this report. Following the production of the systems design document, a version I prototype mockup was produced by December 1. This mockup constitutes Appendix E. This document is in extremely rough form since it is only a mockup. It was submitted to the evaluation group and the implementation group for critique in the early part of December. In addition, it was submitted to the Photographics Department and to the Press for suggestions concerning packaging.

During the month of December and early January there was a breakdown in the team approach. The cause of this breakdown will be discussed during the critique. Nothing more was done with the version I prototype mockup.

The program went into crisis mode in the early part of January, and the package which was produced and eventually presented at the AERA convention was produced with a combination of the production group and an off-campus group who specialized in the production of educational simulation games. The version II prototype mockup which was presented at the convention is presented here as Appendix F of this report.

It should be noted that because of this breakdown in the team approach no formal evaluation design was produced and no formal implementation design was produced. Work and discussion was carried on in these areas, but no formal documents, as required by the model, were ever produced. Because no evaluation design was produced and because the project did break down, the formative evaluation indicated above as item 10 in Figure 2 was never conducted.

The summative evaluation had originally been planned to be conducted by Blaine Worthen at the University of Colorado. While he was standing by and ready to perform such an evaluation, the package was not ready on time and no summative evaluation was ever conducted.

Table 2 presents vital information relative to each of the primary development activities in Figure 1. This indicates the activity, the product which was produced as a result of that activity, the personnel involved in that production, the manpower loading both in estimated mandays and actual mandays, and the cost for each activity. These costs are the costs up to the presentation of the material at the convention in February. An accurate audit trail was possible because each of the personnel working on the project was required to keep hours, so that mandays are actual time spent on the project and not estimates. This makes the cost accounting extremely accurate. There were some additional mandays on the part of the implementation and evaluation groups which were charged to the project, but since no intermediate product was produced, there were not included in Table 2.

#### IV. THE CRITIQUE OF THE PLAN

a. "They're off -- slowly." The initiation of the project did not proceed as expeditiously as might be hoped. The initial contact with Dr. Ward and his initial visit to BYU was very successful. There was considerable effort by the project director following this period in time to put together some formal content materials. Dr. Ward made a second visit to the campus, reviewed these materials, and discussed the progress on the project. In the late part of the summer, a faculty-level instructional psychologist assumed the assignment to monitor and advise on the project. While he spent a number of days in discussion on the project, no formal material was produced by his effort other than some initial critique of the content materials. It should be noted that there was some concern expressed at that early period that perhaps the content material was not as strong as it could be. However, hope was expressed that with additional work, adequate examples could be found and that the material could be organized in such a way to present a meaningful package, especially to those administrators who had very little research training. This was the intended audience of the product, therefore, it was felt it would still be a very profitable enterprise.

b. The team approach -- let's make it an example. When the team development model was implemented September 1, there was a great deal of enthusiasm on the part of all of the people involved at BYU. It was determined at this time to make the AERA project an example of the team approach

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since many of the other projects in which we were involved were in various stages of development and the AERA project was relatively new, it seemed like a perfect example to push through the entire process. As evidenced by the needs goals, systems design, and the version I prototype, considerable progress was made during this period and the team approach worked according to plan. While the prototype version I is extremely rough, it is evident that there was still a great deal of promise, but that a great deal of work needed to be done to improve the content to find more adequate examples. As of December 1 it appeared, in hindsight, that a reasonable and marketable product would still result.

c. The cold winds of December. When the version I prototype mockup was prepared, it was presented to the evaluation group and the implementation group for their use in preparing evaluation plans and implementation plans. Obviously, their first task was to review the product at some length. Their reviews were very critical. At this time (December, 1972) some very strong criticism was leveled by the head of the evaluation group and the head of the implementation group, questioning whether there was enough content in the product to make it a worthwhile enterprise. These criticisms were submitted to Dr. Ward who made another visit at this time. His own comment was that perhaps the content was a little weak and he wondered if the product had sufficient value to warrant further production. The general feeling following this criticism was that although the criticism was rather severe, the product still should be produced, and while it would probably not be the

most outstanding package in the world, it would still have validity and usefulness for a large number of the AERA audience, especially those who are in administration and who are responsible to get research started.

At this point, it is probably advisable to explore the sociology of criticism. The project director, while a very competent student and now a very qualified instructional developer, was not an extremely aggressive person by personality. This coupled with the fact that he was a graduate student and therefore subject to constraints on all graduate students of pleasing his professors, made him especially susceptible to the criticism that was solicited at this particular time. The director of development who produced the prototype package had been on the faculty only three months. He was the youngest of the faculty members, anxious to find his place, and not anxious to raise waves. The head of the evaluation groups was a substantial faculty member of considerable reputation, well admired by both the development group head and the graduate student project director. Obviously his criticism would be taken very seriously, especially since he was the faculty member involved in the project earlier in the summer. The head of the implementation group was also a professor of considerable stature, with a history of extremely successful development products. His criticism also would be taken relatively seriously, especially by a graduate student and a new faculty member. This unfortunate combination of personnel probably increased the devastating effect of the December criticism more than was warranted. That is, had the project director

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been a stronger person relative to those offering the criticism, he probably could have sifted for those things which would have improved the project and eliminated those items of criticism which were not relevant to the project. The same is true of the head of the instructional development group. As it turned out, however, because of the difference perceived in stature, the criticism was taken very seriously and there were considerable doubts raised about the value of the team process. This obviously was quite unrelated to the criticism, but it did cause considerable disruption of the entire project. The period of December and early January therefore was one of relative chaos in regard to this project.

A complicating factor was a tremendous crunch from other work. The TICCIT project (a large National Science Foundation-funded computer-assisted instruction project) was taking a considerable amount of effort at this particular time, and those who could have put their efforts into solving the problem on AERA were diverted because of this tremendous pressure from other projects. In addition, a number of other projects were also in crisis mode at the same time. Therefore, the head of the development group merely turned his attention to other more pressing matters and waited for the criticism to be resolved.

Dr. Merrill in his role as project monitor was not aware of this particular sequence of events as he should have been (consequently he did not take steps to provide the needed resolution of the conflict). The criticism, therefore, was much more devastating than it should have been, and what

should have turned out to be a relatively good project was for all practical purposes aborted at this point in time.

d. The crisis crash, January-February 1973. In mid January it became apparent that progress on AERA version I was at a virtual standstill, and that the deadline of the convention was rapidly approaching. It was felt that some product must be provided. A decision was made that since we would be unable to get a validated product to the convention on time, that at least we should provide a prototype. The development group was called back and various alternatives were explored. At this time a group, unrelated to IR&D, who specialized in the production of educational games, had contacted the department looking for opportunities to be involved. Because of their experience, it looked like they might be able to provide some valuable input to the AERA project. They were hired to provide some simulation exercises with some of the materials developed during the summer.

After the simulation people had finished their work in providing some programmed exercises, these were packaged together by the production group into the version of the material that was presented at the convention. It was decided that what the material lacked in content should be made up for in pazaaz, therefore a relatively fun package was developed, but the content was certainly less than desirable.

e. The criticism of the committee. The committee's review of the project was relatively kind, but serious questions concerning the adequacy of the content were raised. These comments constitute Appendix G of this

report. It was obvious that what had been produced was not adequate, and would not meet the needs. It was therefore decided that a careful evaluation should be done and three alternatives should be approached. The Research Training Committee was polled concerning these alternatives:

- 1) Abort version I, go on to the second package.
- 2) Revise version I sufficient to meet the contract demands from the Office of Education.
- 3) Revise the project sufficient to produce a distributable package.

f. Dr. Green, who had considerable experience at Indiana with Ivor Davies, was convinced that a substantial amount of material existed on decision making, and that were some of this material to be gathered together, a much more substantive package could be put together. He was therefore authorized on BYU money to go to Indiana, interview Ivor Davies, and gather together a considerable set of this material, During the March, April, and May period, Dr. Green did a great deal of work in gathering together materials on decision making. These materials then were put together in a version III package, which is also appended (Appendix H) to this report. It was decided, however, in May that this package, while considerably better in substance and content, was still not an instructional package, and that it would perhaps be better to go on to the second instructional development package rather than to continue to save the "Applied Decision Making" package. This appeared especially advisable since the Research Training Committee members were somewhat hesitant to vote



for a continuation and seemed to feel a marketable package would not be possible. A polling of the BYU faculty also indicated a desire to abort the first attempt and go on to the second package. Therefore, it was decided that all of our efforts would go into this second instructional development package.

g. The disaster of the summer of '73. The entire instructional development program at BYU was thrown into relative chaos during the summer of 1973. A number of precipitating factors were involved, all of which are not appropriate to be reviewed here. Among them, however, was the promotion of the director of the Instructional Services Division, Darrel J. Monson, to an Assistant Academic Vice President. This necessitated the reorganization of the division. This reorganization was not resolved until September, thereby leaving the leadership of the division in question. There was also a considerable struggle over the existence of the doctoral program in instructional psychology as to whether or not it would continue. This left the status of many of our faculty and particularly M. David Merrill, in a relatively unstable position for a period of three months. In addition, there was a tremendous continuing pressure from the TICCIT project, and other instructional development projects at BYU. In July, by prior arrangements, Dr. Green left the campus for 6 weeks. Progress on the first AERA product virtually stopped at that time. The commitments of other people prevented our becoming involved with the second AERA project prior to September.

V. THE PROLOGUE

In this section of the report it is appropriate to explore probable reasons for the death of the AERA instructional development project. The number one sweepstake reason is inadequate management. M. David Merrill who had ultimate responsibility for the project did not monitor carefully enough the progress that was being made. He was not alert to the devastating effect of the criticism in the December review, therefore did not follow through in pulling the project out of the fire. Most of the failure then must be chalked up to inexperience in managing a team approach. Management also broke down in that the team approach was under serious question and criticism during the spring and there were a number of faculty members who felt that a team approach would not work out after all. All of these factors combined to prevent the successful completion of the project.

A second reason, in order of priority, is related to the comment on the sociology of criticism. A very valuable management lesson has been learned from this project. It is as follows: While criticism is extremely desirable, it is important that those who direct the project have the ability to sift the criticism, accept that which is relevant, and reject that which is not relevant so that they can proceed relatively uninhibited. That is, if the director of the project, the person who has responsibility for its production, is in a status position which is viewed as less powerful than those who are offering the criticism and if he does not have a high status backup, he feels that his own position is threatened by the criticism. This criticism is therefore

likely to have a devastating effect. It is important that criticism be sought carefully, that it be adequately screened, and that those who are in the management positions have the necessary backing and power to ride the waves of criticism and still produce a package. A further outcome is the importance of clearly defining the role of the critic as a decision role or an advisory role. In this situation, such a distinction was unclear and the criticism essentially was interpreted as decision making rather than advisory.

The third reason for the death of this project was the lack of a formal content specification. In the early summer Dr. Ward had been asked to prepare a formal content specification, outlining each of his generalities, definitions of concepts and rules, and identifying for each a set of examples. If he had received the primary responsibility for providing this input and insuring its adequacy, then there would have been adequate substance from which to work. As it was, a graduate student was left with the major task of developing most of the content examples. It is not surprising that these examples were not as adequate as those that could have been developed by a more experienced content expert. This lack of a formal content specification proved to be a handicap throughout the project. It was the cause of the strong criticism in December that effectively killed the project.

A fourth problem was the intrinsic weakness of the content. Looking back, it is apparent that for Dr. Ward this approach to decision making was more of a hobby than his area of real expertise. Had he provided input related to multiple linear regression and the material presented in his workshop

and his pre-session, there could have been some extremely strong and valuable material available. As it was, his own understanding, his own presentation of this area was somewhat superficial, and was not the indepth, reasoned, scholarly approach that would have made for an excellent research package. It should not be assumed that this insight was available to us or to Dr. Ward during the summer we were working with him. It is only after careful analysis and hindsight that this particular problem has come to light.

A fifth problem was the lack of an on-the-scene subject matter expert. It is extremely difficult to produce an adequate instructional development package by long distance, unless there is a considerable definition for the remote author as to what his input should be. A remote author is probably possible if an adequate content specification is provided by him. Usually, however, an onsite author is critical in providing the kind of guidance and the kind of validity checks on the content which would make for a strong package.

There are probably a number of other reasons for the demise of this project, but these seem to be the most pertinent, based on the autopsy.

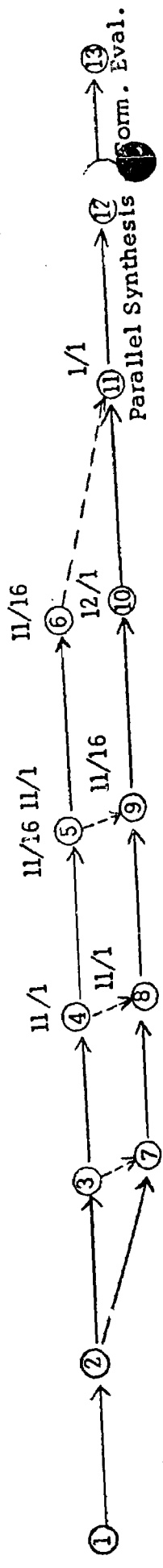
BYU is extremely regretful that this project did not proceed as planned and that an adequate research training package was not produced. We feel that the problem was primarily in the management procedures at BYU. A great deal was learned from this project and our subsequent experience. There is no question in our mind at this time that a team approach does, and can work; considerable revisions in our management structure and our own

team structure with the use of graduate students and the use of authors ,  
have resulted from this project and others . We regret the very painful  
experience , but express our appreciation to AERA and the Office of Education  
for the opportunity to be involved in this learning experience . We hope that  
our production of products in other areas , other funded projects as well as  
those internally funded , will demonstrate to the association and to the  
U.S. Office of Education our ultimate capability , and that this particular  
failure will not handicap relationships with these organizations in the future .

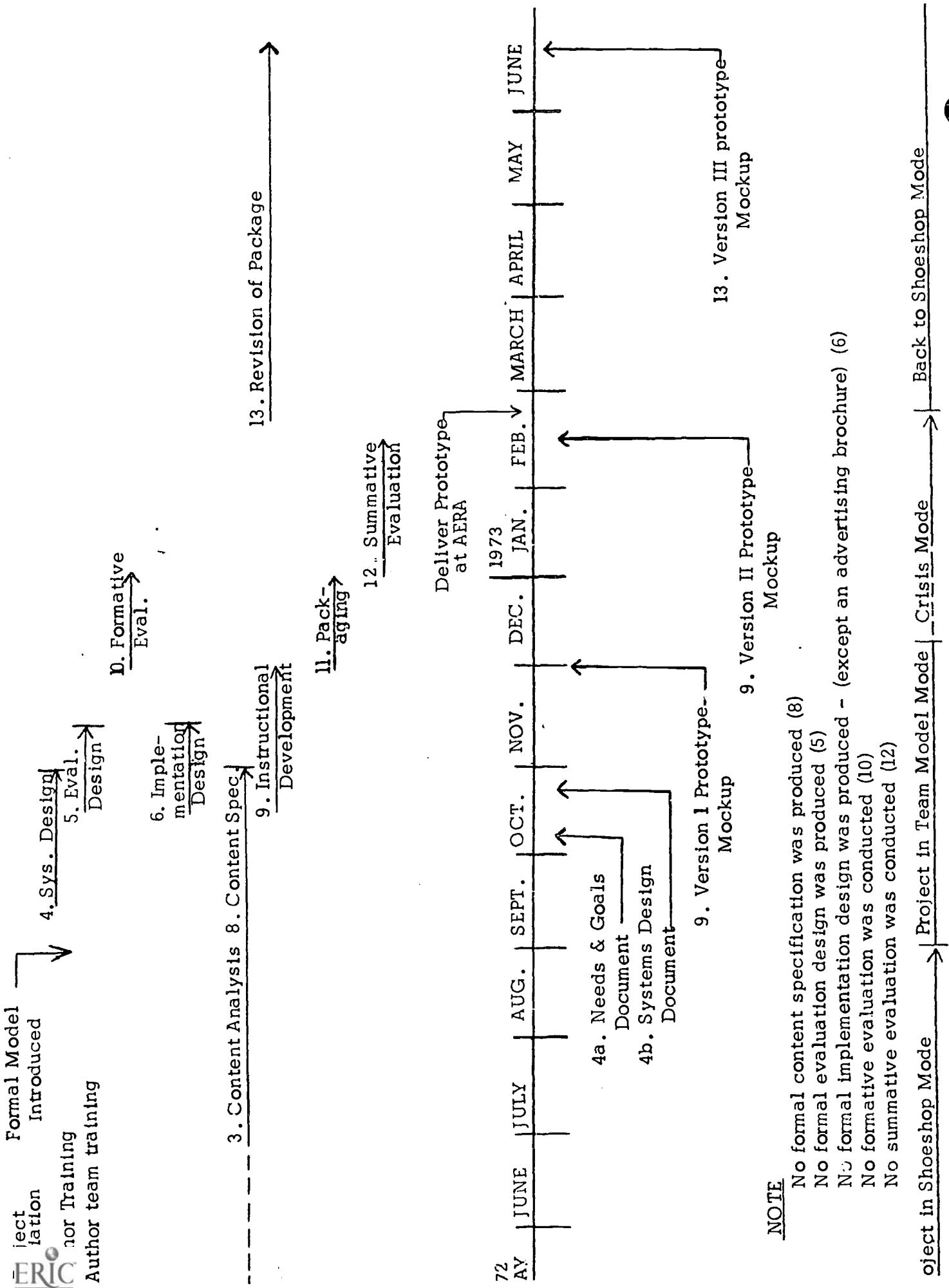
MDM  
November , 1973

Steps	Author	Ass't Author	Inst. Psych.	MAN DAYS			IDUT	EDT	EDUT	Elapsed Time (Wks)
				Proj. Coord.	Design Tech.					
Initiation										
Author Tra.			0.5@							
Content Anal.			8*	5@						
Systems Design			10	2	20					
Eval. Design			5	1	10					
Imp. Design			5¢	1	10					
Auth. Tm. Tra.										
Content Spec.		36#		11#		17				
Synthesis			4							
Formative Eval. (1)			1.5(1)	1						7(1)
Packaging										
Implementation			1		4					
Validation										
Totals		36	35	21	44	17		17	7	

Simultaneous Evaluation & Implementation Design



Project  
ation  
for Training  
Author team training



**NOTE**  
 No formal content specification was produced (8)  
 No formal evaluation design was produced (5)  
 No formal implementation design was produced - (except an advertising brochure) (6)  
 No formative evaluation was conducted (10)  
 No summative evaluation was conducted (12)

FIG. 2 Projected & Actual Schedule of Primary Development Activities &

TABLE 1

Team organization at BYU ---- Dept. IRD ---- Sept. 1972

PROJECT COORDINATION

M. David Merrill PhD  
Grant Barton PhD  
Reba Keele  
William Low

EVALUATION

Adrian Van Mondfrans PhD  
Richard Kay PhD  
David Butler  
William Quinn

SYSTEMS DESIGN

Harvey Black PhD  
Barbara Vance PhD  
Andrew Gibbons  
Roy Bennion  
William Endsley  
Don Martin  
Ireme Chuang

IMPLEMENTATION

Grant V. Harrison PhD  
Leo Garcia  
Norman Murray  
John Wilkinson

PRODUCTION

Edward Green PhD  
Junius Bennion  
C. Eric Ott  
David Tuttle



TABLE 2 VITAL INFORMATION RELATED TO

EACH PRIMARY DEVELOPMENT ACTIVITY IN FIGURE 1

ACTIVITY	PRODUCT	PERSONNEL	MAN POWER - (MAN DAYS)			COSTS		
			TYPE	ESTIMATED	ACTUAL			
<u>SHOESHOP PERIOD - MAY - SEPT 1972</u>								
3-8 Content Analysis	No Formal Document Produced... only outline & notes	Proj. director = Author = Inst. Psychologist =	Technical	--	46.5	\$1400		
			Professional	--	12	953		
			Support	--	29	470		
			Author costs for 2 trips and 3 days are not included.					
			Subtotal					\$2,823
Project Coordination	No Documents	Proj. Director = Dept. Management =	Technical	--	47	1,410		
			Professional	--	10	800		
			Subtotal				\$2,210	
<u>TEAM &amp; CRISIS PERIOD SEPT. 1972 - Feb 1973</u>								
4. Systems Design	"Needs & Goals" "Systems Design Specifications"	<u>Design Team:</u>	Professional	10	11.5	920		
			Technical	20	5.5	165		
			Support	--	15	240		
			Materials	--	\$ 131	131		
			Subtotal				\$1,456	
9. Instructional Development	"Version I Mockup" "Version II Mockup"	<u>Development Team</u>	Professional	4	17.5	1,400		
			Technical	34	9	270		
			Support	--	26	416		
			Materials	--	\$217	217		
			Simulation Games		750	750		
					\$3,053			
TOTAL						\$9,542		

Project Revision	Version III Mockup	<u>Development Team</u>	Professional -- 25	1,993
			Technical -- 10	281
			Support -- 10	164
			Materials -- \$526	<u>526</u>
				\$2,962

## MODEL D: DEVELOPMENT OF INSTRUCTIONAL PACKAGES - SECOND VARIANT

W. James Popham

As the project progressed, it became apparent that careful staff monitoring of the project's financial resources had created the possibility of exploring an alternative approach to the preparation of instructional materials, that is, an alternative to the BYU-supervised development of two trial-revised replicable instructional sequences. The projected cost of the two planned instructional products was approximately \$12,000 each. It appeared that a sum of about \$10,000 was available to support the creation of a second variation of instructional materials development.

The Research Training Committee agreed to attempt to secure a series of low cost, high quality instructional booklets of approximately 75 pages (typed, double spaced) length. Because the committee was anxious to focus these materials on a high need area, it was decided to emphasize the theme of educational evaluation and to prepare materials suitable for the training (and re-training) of the many individuals who engage in systematic evaluation at all levels of the educational enterprise. In particular, the committee wished to identify individuals who would prepare instructional booklets dealing with recent advances in evaluation techniques, strategies, and ideologies. Ideally, these authors would be leaders in the evaluation field who were both conversant with cutting edge thinking and also were able to translate those views into an instructional booklet comprehensible to evaluation practitioners.

The general scheme for securing the instructional booklets was as follows:

1. The committee chairman would assume supervisory responsibility for the activity.
2. The committee identified a number of potential authors and topics for consideration.
3. The chairman contacted eleven individuals, inviting them to participate in the project. (One declined because of a sabbatical leave abroad.)
4. Each author, upon agreeing to prepare the specified instructional booklet was to receive a \$250 payment.
5. Upon submission of the booklet manuscript, an additional \$500 payment would be made.
6. Upon acceptance of the manuscript (after review by the committee chairman and, if necessary, other committee members) a final \$250 payment would be made.
7. Each manuscript would be reviewed by a subject matter expert, appointed by the Association's Publications Committee, before the AERA imprimatur could be placed on any subsequent publication.
8. It was anticipated that the series of separate booklets, after approval by NIE authorities, would be released for distribution to a commercial publisher.

The authors and titles of these instructional booklets are given below:

Michael Scriven, University of California, Berkeley--Questions and Answers for Evaluators

Peter Airasian, Boston College--Designing Evaluation Studies

Daniel Stufflebeam, Western Michigan University--Alternative Conceptions of Evaluation

Gilbert Sax, University of Washington--The Role of Standardized Tests in Evaluation

Emil J. Haller, Cornell University--Costs & Costing Procedures in Program Evaluation

Richard Wolf, Teachers College, Columbia University--Data Analysis and Presentation in Evaluation

Jason Millman, Cornell University--Criterion-Referenced Measures

\* Eva Baker, University of California, Los Angeles--Formative Evaluation Techniques

Kenneth Sirotnik, University of California, Los Angeles--Multiple Matrix Sampling

\* Joel Weiss, Ontario Institute for Studies in Education--Designing Affective Measures

At the time when the project's final report was written, all manuscripts except those two noted by asterisks had been received and approved. Several of the manuscripts were reviewed in early draft stages. One manuscript was returned for basic modification. All manuscripts submitted were approved by the committee chairman.

## EVALUATION OF MODEL A: TRAVELING TRAINING INSTITUTES

W. James Popham

The Concept

Unlike the more familiar pre-session/post-session training model which the Association has conducted since the mid-sixties, the traveling training institute was conceived of as a vehicle which would, in a geographical sense, bring training to members of the R & D community, not oblige them to seek it out once a year in conjunction with a professional association's annual meeting. By staging brief training institutes in various parts of the country, it was believed that more R & D personnel could conveniently take advantage of relatively nearby opportunities to improve their professional skills.

Further, since a given institute was tentatively scheduled for several offerings in different parts of the country and at various times, evaluations of the initial institute in each series would provide an opportunity for the supervisory agency (the Association in this instance) to exercise quality control over the offering of future sessions. In the most pleasant circumstances this would mean that the staff of a continuing institute could be provided with formative evaluation inputs which would result in improvements in future sessions. In a less happy case, this option would permit the cancellation of an institute so that an ineffectual session would not be repeated.

The Institutes Offered

In review, there were five traveling training institutes approved: (1) a two day session on evaluation directed by Michael Scriven and Daniel Stufflebeam, (2) a four day session on Bayesian statistics directed by Melvin Novick and Donald Meyer, (3) a three day session on performance-based training and assessment directed by Frederick McDonald, (4) a three day session on written instruction directed by Ernest Rothkopf and Lawrence Frase, and (5) a two day session on reading

directed by Jay Samuels.

The first three of these sessions were conducted on one or more occasions. The latter two were not conducted due to insufficient advance participant enrollments. A summary of the evaluations of the three sessions which were conducted will be provided in subsequent paragraphs, but first a brief examination of the evaluation procedures employed will be provided.

### Evaluating the Traveling Training Institutes

There were three major purposes for evaluating the traveling training institutes. First, in a summative sense, a judgment had to be made regarding whether to offer a given session subsequently on the basis of its earlier performance(s). Second, more formatively, improvement-focused evaluation data were needed in order to make subsequent sessions of an institute more effective. Finally, an evaluation of the traveling training institute concept itself had to be made.

Complete evaluation reports for each of the individual sessions conducted are available in an appendix to this report. Since a complete description of the evaluation procedures and the evaluation results for each session are available in these documents this section of the report will provide only highlights of these evaluations.

For each session an evaluator designated by the staff supervising the project attended the institute, administered a number of measures, and prepared an evaluation report for that session. These on-site reports were subsequently submitted to the Association's Research Training Committee (for a go/no go decision on future sessions) and to the institute staffs (for improvement purposes).

The Scriven-Stufflebeam Institute. This session was offered in Portland (October, 1972) for 23 participants, in Tampa (January, 1973) for 26 participants, in Tucson (March, 1973) for 19 participants, and in Berkeley (July, 1973) for 17 participants. Originally scheduled for only three sites, the positive response of previous participants resulted in the offering of the fourth session in Berkeley.

The relatively small number of participants in each session stemmed chiefly from the directors' imposed ceilings on attendance. In particular, for the first two sessions in the series almost twice as many individuals applied as were admitted. The combination of the directors' prominence plus the current interest in the topic of evaluation undoubtedly contributed to the high participant interest in the session.

In general, the sessions were well received by participants, with an overwhelming number of those attending providing anonymous responses that they would be willing to attend the session again and to recommend the session to a colleague. The third session in the series (Tucson) was less successful than the other three, apparently due to Scriven's day-late arrival and Stufflebeam's somewhat early departure. A number of suggestions were offered by the on-site evaluators for modification of the session, and the majority of these were attended to by the institute staff.

The Novick-Meyer Institute. This session was offered in Amherst, Massachusetts (October, 1972) for 16 participants and in Tampa (January, 1973) for 26 participants. A third session scheduled for Eugene, Oregon was cancelled, due to insufficient pre-registration (only five applicants). Undoubtedly the more limited appeal of this institute, coupled with the somewhat difficult access of its third site, led to the insufficient number of participants for the intended third session.

The first two sessions were well received, with almost all of the participants completing anonymous questionnaires reflecting a willingness to attend the session again and to recommend it to a colleague. Use of a cognitive test indicated considerable pretest to posttest increases in participants' knowledge of the institute's content. A number of the suggestions emanating from the first session's evaluation were followed in the second session. Although, perhaps because of the integral role played by computer equipment in this institute, resolution of logistical



and budgetary considerations for this session proved difficult, the two institutes appeared to be quite successful.

The McDonald Institute. This session was offered for three days in Boston (May, 1973) for 25 participants. Although it had been anticipated that the institute would be offered on several subsequent occasions, the intense participant dissatisfaction with the quality of the session led the Association's Research Training Committee, after an examination of the evaluation data from the first session, to reach a unanimous decision to cancel any future offerings of the institute.

Only three of the 23 participants who completed the anonymous end-of-institute questionnaire indicated that (if they were able to choose again) they would attend the institute. Only four indicated they would recommend the institute to a colleague. Several letters registering extreme unhappiness with the quality of the session were received by the Association. It was generally contended by participants that there was insufficient preparation by the staff and inadequate content to be presented. It was apparently most frustrating to pay almost \$50 per day, only to be placed in small group sessions in order to share problems with other \$50-per-day participants. Approximately 75% of the structured class time was spent in closureless small group sessions. One of the scheduled instructors failed to attend the session because of a scheduling confusion. The director was obliged to be absent for one day. These and other factors operated to make this institute, at least in the view of the monitoring Research Training Committee, a rather dismal failure. Fortunately, the staggered nature of the traveling training institutes permitted the luxury of cancelling future sessions of the institute.

The Samuels Institute. This two day session focused on reading acquisition with an emphasis on deprived populations. Two sessions were scheduled for summer, 1973, one in New York during mid-June and a second in Minnesota during late July.

Only five applications were received for the New York session and only four applications for the Minnesota session. Neither session was approved due to insufficient interest.

The Rothkopf-Frase Institute. This three day session dealing with research in written instruction was scheduled for Madison, Wisconsin during August, 1973. Of the 12 applications received, the directors viewed only six to reflect adequate entry skills, hence this session too was cancelled due to inadequate pre-registration.

#### Evaluating the Concept

One factor to be considered in evaluating the merits of the traveling training institute as a vehicle for "bringing training to those needing it" is the type of people the sessions served. Although a better picture can be gained by consulting the individual evaluation reports, it appears that the participants were varied but generally resembled the kind of individuals who attend the presessions and postsessions conducted in conjunction with the annual meeting.

Most interesting to the various individuals serving as evaluators was the considerable distance traveled by participants to attend the institutes. In all of the Scriven-Stufflebeam sessions and one of the Novick-Meyer sessions 50 per cent or more of the participants traveled 1,000 or more miles to attend the institutes. If the sessions were conceived of as "regional in nature", then one must employ a liberal definition of what constitutes a geographic region.

Another point of interest is that although participants expended considerable funds on the sessions, few if any spent any substantial amount of personal funds for the institutes. Sponsoring agencies, almost without exception, paid participants' expenses.

Participants' Appraisal of the Traveling Training Institute Concept\*

A critique form was administered to participants at the conclusion of each of the first seven traveling institutes. This instrument included a question regarding the advantages and disadvantages of the traveling institute concept as compared with those of the AERA annual meeting pre- and postsessions.

This section is a summary of the responses to this question collected at five traveling institutes.<sup>1</sup> Several participants responded with reference to characteristics specific to the institute they attended (e. g., daily scheduling was poor); these concerns have been included in the evaluation reports for each institute, and will be considered inappropriate for this summary. Of the 101 available instruments, 68 included responses citing advantages and 30 listing disadvantages (excluding inappropriate responses). Responses given by three or more participants are listed in Table 1.

The most prevalent (17) listed advantage of the traveling institute format was that it requires fewer days away from work at one time. It was generally expressed that it is more convenient to take two short absences from work in order to attend the convention and a training session separately than to be absent for one long period in order to

\*This section was prepared by Marilyn Averill of the University of Colorado, Laboratory of Educational Research.

<sup>1</sup>Information was available from the following institutes: Alternative Conceptions of Evaluation given in Portland, Oregon; Tucson, Arizona; and Berkeley, California; Bayesian Statistics held in Tampa, Florida; and Performance Based Teacher Education given in Boston, Massachusetts. Responses have unfortunately been misplaced from the Evaluation Institute in Tampa, Florida, and the Bayesian Institute in Amherst, Massachusetts. However, a review of the data from the remaining five institutes shows no systematic differences in responses across institute titles or locations.

attend them together.

Reduced costs were listed as an advantage by eleven participants; most referred specifically to reduced transportation costs resulting from the regional locations. Choice and convenience of locations and dates were seen as an advantage by four participants. Ten others listed convenience of location alone, without reference to cost or dates. Seven participants cited choice of dates as an advantage; in addition, three others stated specifically that the choice of dates made training sessions more responsive to immediate professional needs.

Fourteen participants indicated that benefits were obtained by holding training sessions separately from the convention because of distractions created by other activities at the convention (7), and because of the "information overload" and generally tiring effects of convention attendance (7).

The only disadvantage listed with any consistency (22) was that of the duplication of travel expenses incurred from attendance at both a traveling institute and the annual meeting. Apparently the reduced costs listed as an advantage occurred only for those people who did not also attend the AERA convention. Other disadvantages cited tended to refer to specific institutes.

Table 1

Participants responses concerning the advantages and disadvantages of the traveling institutes as compared with pre- and postsessions associated with the annual convention.

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<u>Advantages</u>	Frequency
1.) Less time away from work	17
2.) Convenient locations	10
3.) Reduced costs	11
4.) Choice of dates	7
5.) Fewer distractions	7
6.) Convention too exhausting	7
7.) Choice and convenience of dates and location	4
8.) Responsive to immediate professional needs	3
 <u>Disadvantages</u>	
1.) Extra travel expenses	22

### Survey Data

Approximately 74 percent of the respondents to the survey of AERA members were aware of the traveling institutes, although only 3.7 percent attended one of the sessions. The Educational Researcher was the primary means by which most respondents learned of the existence of the traveling institutes.

Major reasons cited by respondents for not attending any traveling institutes include inability to take time off from work (33%), distance to institute (24%), the cost of the institute (21%), and the inappropriateness of the topics for the participant (19%). If one assumes that concern with distance is in many cases a concern over travel costs, it is apparent that the overall costs for the institutes are uncomfortably high. This is reinforced by the fact that only one percent of the respondents thought a fee of \$50 or more a day was appropriate, while the remaining 99 percent felt a lesser fee would be appropriate, with the large majority choosing a fee of \$20 to \$30 a day.

Support for offering training sessions at times other than the annual meeting exists in participant data which shows that more participants would be available to attend a summer training session (51 percent of the respondents) than at any other time of year. Next choices are winter (34%), spring (22%), and fall (21%)

## EVALUATION OF MODEL B: ANNUAL MEETING PRESESSIONS

W. James Popham

### The Concept

Although there is a long and rather successful history of training sessions offered in conjunction with the annual AERA meeting, there has always been some concern that such sessions are reaching only the same sorts of people or, worse, that the sessions may be reaching only an identical group of "repeater" participants. The training model to be tested here involved the preparation of annual meeting training sessions which were specifically designed for audiences other than those individuals who typically attend an AERA meeting.

In essence, then, this particular training model attempted to incorporate a previously employed format, namely, presessions associated with the annual meeting, but directed that format toward a unique audience, that is, members of the R&D community who would not characteristically attend a traditional AERA pre-session or postsession.

### The Training Sessions Offered

From a number of proposals which were submitted to the AERA Research Training Committee, two were selected in order to implement Model B. The first of these, entitled "Research on Reading Acquisition: With An Emphasis On Deprived Populations," was a session directed by Professor S. J. Samuels of the University of Minnesota. This was a five day pre-session designed for a wide array of R&D specialists concerned with reading, particularly those working with deprived populations. According to the announcement of the session appearing in the Educational Researcher, the directors of the session considered it "suitable for curriculum supervisors, teachers of learning-disabled

students, personnel who work with inner-city residents and the disadvantaged, school evaluators, curriculum designers, reading specialists, and researchers in verbal learning." In addition to Professor Samuels, four well known instructors constituted the staff for this session.

The second Model B session was a three day pre-session entitled "Computer Managed Instruction." This session was directed by Dr. Frank B. Baker of the University of Wisconsin who was assisted by three well established colleagues as instructors. The primary "new" audience for the second session was the public school educator who needed to acquire a working knowledge of computer managed instruction, both in order to participate in research related to this endeavor as well as designing and conducting instructional systems using a computer management base.

Unfortunately, only one of the two sessions offered was actually conducted. The Samuels session attracted 14 participants. That number, because of the substantial participant tuition charge for a five day session, provided sufficient tuition to make the session essentially self-supporting. The Baker session, on the other hand, received only seven applicants and was not offered.

Evaluating the Samuels Pre-session

A separate evaluation of the Samuels pre-session is enclosed in the appendix. The interested reader is advised to consult that more detailed appraisal. The highlights, however, of the evaluation can be described here briefly.

The most important question regarding this pre-session was whether the session reached the clientele for which it was intended. An examination of the



14 participants at the session reveals that six were associated with a college or university, three were from public school systems, one was from the State Department of Education, two were students, and two represented other categories. It appears that, on the basis of a very small number of participants, the session was only moderately successful in reaching people other than the more traditional participants attending the annual meeting.

Regarding the participant's reaction to the session, there appears to be a reasonable level of satisfaction but by no means enthusiastic approval of the session. When the participants were asked whether, if they were able, they would choose again to attend the session, five indicated yes, two indicated no, and five were not certain. (Two of the 14 participants did not complete the final evaluation form.) When asked if they would recommend this session to a colleague if it were offered again, eight indicated yes, three indicated no, and one was uncertain. As indicated above, detailed analysis of participant responses of the session is included in the separate appendix, but responses to their general types of evaluative questions appear to reflect a generally positive reaction to the session.

Evaluating The Concept

One thing appears to be clear from the two trails of Model B, namely, that merely offering sessions which appear to be suitable for targeted R&D audiences does not automatically produce a large attendance. The Research Training Committee in screening the proposals which were designed to implement Model B relied somewhat passively upon proposals submitted to it. Rather than

actively soliciting proposals from individuals who could design targeted training sessions, the committee awaited the receipt of such proposals. There were not many eligible proposals that were submitted. Apparently, the two sessions selected were not, on the basis of their content and staff alone, sufficiently appealing to attract many of the individuals for whom they were designed. The fact that one of the two sessions offered was not even conducted and that the other drew only 14 participants suggests that the Research Training Committee did not select sessions with sufficient audience appeal. Apparently, a more aggressive committee stance is required to locate training sessions which will be more attractive to groups other than the individual R&D specialists who attend the annual AERA meeting.

In addition, it appears that publicizing such sessions in our customary channels (e.g., announcements in the Educational Researcher) is inadequate. Of course, this consideration is confounded with the nature of the sessions themselves, but the low attendance would also suggest that more intensive promotional campaigns have to be mounted in association with the new training ventures of this sort.

Model B, as it was conducted in connection with this training program, appears to be a potentially useful scheme, but warrants further, more careful testing.

## EVALUATION OF MODEL C: ANNUAL MEETING

## TRAINING ACTIVITIES

Blaine Worthen

The Concept

Although AERA has established a familiar pattern of offering training shortly before or after annual meetings through the familiar pre-session/post-session training model, there has been little or no conscious effort prior to 1973 to provide direct training to Association members and other professionals at AERA annual meetings. In 1973, the Association supplemented the usual reports of research and evaluation studies and discussions of evolving methods and techniques with a series of activities designed expressly to provide explicit training during the annual meeting.

It was believed that training opportunities during the annual meeting were especially desirable because large numbers of potential trainees and trainers would already be scheduled to attend annual meetings, eliminating problems associated with scheduling alternative times when it might be more difficult or costly to bring busy trainers and trainees together. Conversely, the existence of many competing activities during annual meetings was viewed as a potential drawback to training during the annual meeting. Therefore, it was determined that Model C should consist of training activities which were relatively short in duration, readily accessible to potential trainees, and scheduled on either a repeating basis or at times thought to conflict minimally with competing alternatives.

The purpose of Model C and its evaluation was to determine whether explicit training could be successfully conducted during the annual meeting, both as a test of (a) the specific training activities conducted and (b) the concept of annual meeting training.

#### Annual Meeting Training Activities

Model C comprised three separate training activities. The first was a series of three mini-courses (the fourth was cancelled due to the sudden illness of the director). Each session was on a specific topic in educational research and was three to four hours in duration. (1) Eva L. Baker, Planning Formative Evaluations for Instructional Products; (2) Benjamin Wright, Sample-Free Item Calibration & Test Free Person Measurement; and (3) Ronald G. Ragsdale & Saul Reisman, Computers in Educational Research.

The second activity was a series of four conversation hours, each of which provided for an hour or two of informal conversations between invited speakers and any participants interested in discussing topics of their choosing with the speakers. Invited speakers were Robert M. Gagne, Robert L. Ebel, Richard C. Anderson, and Roger Heyns.

The third activity was provision of training materials in a combination training exhibit and study center. The intent was to identify and collect quality research training materials which participants could study either to learn concepts presented in the materials or to determine whether the materials might be useful in training activities they planned to conduct in the future.

A more complete rationale for each of these Model C activities is presented earlier in this report along with a description of procedures used in soliciting and selecting trainers and products and publicizing the activities.

### Evaluating Annual Meeting Training Activities

There were three major purposes for evaluating the training activities conducted during the annual meeting. First, each single activity (e.g., Baker's mini-course) was evaluated to determine whether to offer it or something like it again at future annual meetings. Second, each set of activities (e.g., conversation hours, viewed as a whole) was evaluated for the same purpose. Third, an evaluation of the annual meeting training concept itself was necessary.

A complete detailed evaluation report of Model C is available in the Appendix. Therefore, only a brief summary of evaluation procedures and results will be provided here and in subsequent sections.

The evaluation plan for Model C differed somewhat across the three activities. Data were collected in both the mini-courses and conversation hours by three techniques: (1) eliciting participant background information and reactions using short questionnaires and rating scales; (2) eliciting staff reactions, using a short rating scale; and (3) direct observation by a graduate student who served as a participant-observer in each session. Because of the short duration of the activities, data collected by the first two techniques were not as extensive as might have been possible given more time. Therefore, the use of observers was designed to supplement the other data and note irregularities or problems in the sessions not covered by the other instruments.

For the training exhibit/study center, the plan was to register the name and address of each person who entered the exhibit area and send a questionnaire to him later to elicit reactions to the materials and benefits received from perusing them.

An ancillary survey of 600 AERA members was conducted to determine whether members who did not attend any of the training activities were aware of their existence and, if so, why they chose not to attend. A more detailed description of that survey is contained in the Appendix. The results of implementing these procedures are discussed below, with each of the three training variations in Model C treated separately prior to discussing the utility of the overall concept of annual meeting training.

#### Mini-courses

The three mini-courses were relatively well attended, with the following number of participants completing the instruments at the end of each session: Wright (16), Baker (38) and Ragsdale (17). Numerous other persons were present for part of the sessions, but (for reasons described later) left before the sessions were completed. An analysis of the background of participants showed that twice as many held membership in Division D as in any other division, suggesting a possible selection bias in the topics for the mini-courses. Most participants attended out of a desire to gain new skills or improve existing skills, rather than to discuss their individual research or evaluation problems with experts. A majority of the participants indicated they had limited or no experience in the respective topics. It is significant that 65 percent of the participants first learned about the

mini-courses through the Annual Meeting Program and another 14 percent first learned of those sessions through flyers handed out during the convention. Only 20 percent learned of the sessions prior to the annual meeting and only 9 percent of these were made aware by reading an announcement in the Educational Researcher.

The survey of AERA members at large showed that approximately eight percent of those persons who attended the annual meeting attended a mini-course, 20 percent attended a conversation hour, and 16 percent visited the training exhibit. Approximately 38 percent indicated they were too busy to attend a mini-course, conversation hour, or training exhibit.

Numerous logistical problems plagued the actual operation of the mini-courses; these centered on problems with facilities and equipment and can be attributed to inadequate coordination of hotel and annual meeting staff. The room for the Baker session was far too small for the 75 to 80 persons who were in attendance shortly after that session began. As a consequence, physical discomfort and inability to see or hear adequately led to about half of the participants leaving prior to the end of the session. Similar problems occurred, but to a much lesser extent, in the Wright and Ragsdale sessions. The Ragsdale session was disturbed by late delivery of visual aid equipment, as well as a last minute change of locale to another room in another hotel. Mini-course staff indicated that these

difficulties, combined with tight time allotments, forced them to significantly alter their presentation of the content of their courses.

Despite these difficulties, the mini-courses were for the most part enthusiastically received by the participants who remained to the end of the sessions. In general, the topics of the mini-courses were viewed by participants as important and the courses themselves as very useful in their learning about the topics. Participants liked the convenience of scheduling the mini-courses during the annual meeting, although a majority felt that the courses should be lengthened somewhat.

Overall, the participants indicated that the instructors were very well qualified, their presentations well prepared, and the instruction interesting and informative. Participants reacted very negatively to the facilities in which the mini-courses were offered. On the average, participants felt the tuition fee was reasonable.

#### Conversation Hours

The conversation hours were well attended, with over 100 persons in attendance at one time in the Gagne session (in a room designed to seat 40). Because persons came and went at will, the evaluation instrument administered at the end of the session was completed by only a sub-set of the persons who attended, which may have introduced some bias into the data. The number of participants who completed instruments at the end of each session were as follows: Ebel (34), Anderson (23), Gagne (23), Heyns (17). Most of these respondents were in attendance for an hour or more of the conversation.



The conversation hours were designed to provide opportunities for practicing researchers to interact with luminaries in their fields in much the same way AERA graduate student seminars provided comparable opportunities for graduate students. Eighty-four percent of the participants in conversation hours were employed (16 percent were full-time students) and 61 percent held the doctorate. A majority said they had considerable or a great deal of experience in the field of the discussion leader. Divisions C and D were most heavily represented, with over half of the participants holding membership in those divisions. This slightly overrepresents the divisional membership of AERA which contain approximately 45 percent of the members within those two divisions.

Again, most of the participants first learned about the conversation hours through the annual meeting program (69 percent) or at the annual meeting (16 percent). The idea of having participants send questions to featured speakers before the annual meeting must be judged a failure, since only four percent of the participants contacted the featured speakers by mail prior to the conversation-hour. The concept of having "big name" speakers was obviously successful, since three out of four participants attended primarily to hear the featured speaker.

The content of the conversation hours was judged by participants to be important, the discussion leaders very well qualified and receptive to other points of view, and the discussions informative and interesting. There was a strong sentiment among participants that conversation hours should be offered at future annual meetings.

### Training Exhibit/Study Center

There are some indications that the training exhibit concept has potential, if a sufficient quantity of quality training materials can be identified to warrant its continuation. For example, approximately 100 persons perused at least some of the training products every day. Their verbal comments to AERA staff were primarily positive, with the exception that many persons felt a separate room should be set up for films, which otherwise distract persons working on printed materials or listening to cassette tapes.

Unfortunately, no further evaluative data are available because of a comedy (or tragedy) of errors associated with the evaluation of the training exhibit. The list of names and addresses of persons who visited the exhibit (and who would therefore have received a questionnaire) inadvertently was mixed in with an exhibitor's lists of orders for his materials and was carried off and subsequently lost by the exhibitor. Observer notes which might have helped to fill the gap disappeared when an erroneously scheduled Division C meeting was held in the exhibit area and a majority of the training products (and even the observer notes!) departed with the attendees. All of which is a sad commentary on both the acquisitive tendencies of some of our colleagues and the resultant need to develop new theft-proof evaluation techniques. In the interim, there is no good way to judge the success of this annual meeting training effort.

### The Concept of Annual Meeting Training

Based on the evaluative data available, the concept of providing training at the annual meeting must be judged at least a qualified success. The attempts

to provide training at the annual meeting were well received by participants. Specifically, the mini-courses were rated very positively by participants, and it appears that a wider offering of such courses might be in order for the next annual meeting. Although the numbers of persons in attendance at conversation hours changed the intended nature of those sessions and may have diluted the amount of training received by any one participant, the reactions to the sessions were very positive and participants clearly stated their hope that such sessions could be continued. It would seem worthwhile for AERA to offer expanded training opportunities at the next annual meeting.

Some recommendations seem in order. First, better publicity should be given to mini-courses and conversation hours in the annual program, since that is the primary vehicle through which participants became aware of those sessions. Better control of logistics (scheduling and security of rooms, etc.) for special annual meeting training events is a must. Mini-courses of somewhat longer duration should be offered to assess their utility, in addition to continuing with some of the present length. Each Division might be invited to work cooperatively with the Research Training Committee to sponsor one mini-course and one conversation hour. The selection of eminent persons to serve as featured speakers in conversation hours should be continued.

## EVALUATION OF MODEL D: DEVELOPMENT OF INSTRUCTIONAL PACKAGES

W. James Popham

There were two separate approaches to exploring the efficacy of Model D. The first of these was the effort to develop two replicable products at the Brigham Young University Division of Instructional Research, Development, and Evaluation. Earlier in this report the director of that project provided an insightful analysis of the difficulties associated with the endeavor. From the point of view of the Research Training Committee, the group charged with monitoring the quality of the under-development projects, this phase of the project proved particularly vexing. There was a long history of unsatisfied expectations, overdue progress reports, and low quality products. Finally, after deciding that the first of the two products was unacceptable but potentially a learning experience for the BYU group, the committee demanded highly explicit specifications for the second product. When these specifications were, in several successive versions, judged inadequate with respect to both specificity as well as content significance, a telephone and mail poll of the committee resulted in a decision to terminate all work on the second product. The committee preferred to return the unexpended funds to the National Institute of Education rather than experience a second result similar to that associated with the initial product.

It is likely, of course, that the unfortunate result of this effort stems chiefly from the ideosyncratic situation at BYU so well described earlier. Yet, another interpretation is possible. It may be that it is next to impossible to locate a development group that is both (a) capable

-2-

of producing a high quality instructional product at modest cost and (b) available to assume the task.

In other words, the effective instructional development laboratories will typically be too heavily committed to take on the one or two short types of instructional development tasks originally contemplated in Model D.

The second variant of Model D, the production of low cost instructional booklets, was initiated so late in the project's existence that it is difficult to evaluate them properly. From a raw cost/product standpoint, the scheme appears potentially effective. A large number of instructional booklets on current topics was prepared by many of the nation's leading evaluation experts. In part, one suspects that not only the prospect of a \$1,000 honorarium but also the opportunity to prepare an instructional document for their professional association were key factors in securing such a prestigious array of authors.

In the chairman's view, the quality of all the manuscripts is suitable for publication, and several of them appear to be truly exceptional contributions to the field. Yet, the critical test of this form of development will depend upon the impact of the materials upon those individuals for whom they were designed. Perhaps the lack of a trial-revision development pattern will render the booklets ineffective. We shall temporarily have to defer our assessment of merit on the second variant of Model D.

## SUMMARY

In review, the entire project represented an effort to explore alternative vehicles for providing continuing education for members of a professional research association. The project was initiated in recognition of the clear need for providing training which can effectively combat obsolescence on the part of a professional research community. Several questions were under scrutiny in the investigation. First, there was a focus on four specific training models which were employed. Second, there was attention given to the general question of whether the overall structural scheme for this training endeavor was viable, namely, whether a group of research professionals in the field (as represented by the AERA Research Training Committee) could work in collaboration with the Association's central office staff in order to conduct reasonably effective training ventures. The final section of the report will deal with both of these questions.

With respect to each of the four training models, a more detailed analysis can, of course, be secured by consulting the sections of the report which describe those models and which evaluate them. In general, however, it appears that several of the models hold considerable promise, while one proved rather unsuccessful. Model A, the traveling training institute was initiated during the period of the project. At least two were received and well attended. The

traveling training institute concept was organized on a self-support basis, thereby permitting the conduct of only those sessions which could, in essence, pay their own way. While this is a limitation, of course, it certainly suggests that the traveling training institute is a practicable scheme for reaching educational research professionals. It appeared that, contrary to the expectations of the Research Training Committee, the most important factor in participants' decision to attend the traveling training institutes was not the geographic location but, rather, the temporal appropriateness of the sessions. It is apparently easier for people to take several days away from their work for a traveling institute and then take other time off for attendance at the annual meeting, than to attend an annual meeting plus a pre- or postsession which results in a much longer period away from one's work.

With respect to Model B, annual meeting preessions designed for broader audiences, the evidence is less encouraging. Two sessions were offered during the 1973 annual meeting, and only one of these received sufficient applications to actually conduct the session. At that, only 14 participants attended the particular preession. It appears, on the basis of this modest trial, that it might make more sense, if one is attempting to reach divergent research audiences (such as those individuals whose primary professional affiliation is the International Reading Association rather than AERA), to actually conduct sessions prior to or following the meeting of other professional groups (such as the International Reading Association). It is apparently unlikely that

the availability of a special pre-session or post-session in conjunction with the AERA annual meeting was sufficiently appealing to get individuals to attend the AERA Annual Meeting.

The special training activities arranged during the annual meeting, Model C, seemed (along with Model A) to be the most promising of those training schemes considered in this project. The response of members to the during-meeting **mini** training sessions and conversational hours was particularly gratifying. As a consequence of this project, the AERA Research Training Committee plans to expand markedly the number of training activities offered in conjunction with the annual meeting. As more experience is gained regarding the conduct of these sessions, one suspects that they will become an integral part of the annual meeting activities.

Model D, the model focusing on the preparation of instructional materials, offered the least promising results. As was documented earlier in the report, efforts to produce two replicable instructional products for use by educational research practitioners met with considerable disappointment. Indeed, one of these two projects had to be cancelled prior to its completion. As was suggested in the section involving the evaluation of Model D, it is likely that highly qualified instructional development agencies (such as mature regional laboratories) are sufficiently committed to their own development



responsibilities that they cannot take on development projects such as those which a professional association might sporadically wish to undertake. Such mature development agencies would be reluctant to assign their most qualified personnel to such an intermittent production effort.

At the same time, those groups which would be available for the development of instructional materials such as those undertaken in this project are, very likely, not the most effective agencies of this sort. As a consequence, the quality of the resulting instructional products may parallel those which were witnessed in this project.

One suspects that an alternative vehicle for producing instructional materials which were both (1) trial-revision based (and therefore effective) and (2) of real utility to research practitioners, would be to establish a programmatic effort to develop instructional materials of this sort. In other words, long term funding would need to be provided, either for a new modest-scope agency, or for some already established instructional development group. If a regional laboratory, e.g., foresaw the possibility of a three-five year project involving the preparation of a series of instructional materials for educational research practitioners, then appropriately talented staff could be assembled for the endeavor. Unless a scheme such as this is devised, ad hoc instructional development of this kind seen in the present project is unlikely to be successful.

With respect to the second variation on Model D, the production of low-cost instructional booklets dealing with high import topics, the jury is still out. Clearly, through the prestige of the research association, one is able to secure highly talented members of the profession to prepare instructional booklets of this sort. Whether those same individuals would be willing to participate at greater length (and at greater cost) in the preparation of trial-revision materials remain to be seen. The kind of writing task which was requested of these authors was more consonant with their characteristic writing efforts and, therefore, was readily completed. When the instructional booklets have been distributed and reactions from the field have been secured, then we will be in a better position to say whether this particular variation of Model D is an effective one. At the moment, the evidence is not at hand.

Regarding the general structure of the training project, a positive appraisal can be rendered. The organizational structure was definitely a viable one. The major policy decisions were made by members of the profession through their Research Training Committee and the administration was primarily carried out by the central office staff of that organization. One suspects, however, that the effectiveness of this particular relationship was more a function of the individuals

involved than of a generalizable organizational "discovery." The Research Training Committee and the central office staff worked well together. Frequent letters and telephone calls made it possible to monitor the progress of the project, with a few minor exceptions, quite satisfactorily. As the need developed for additional scrutiny on certain points, we were able to secure the input of other members of the profession.\* One had the feeling that, had key members of either the AERA central office staff or the Research Training Committee been replaced by less conscientious individuals, the organizational structure effectiveness might have suffered dramatically.

In retrospect, several of the training variants and organizational schemes devised as a consequence of this project seemed to offer considerable promise, not only for the American Educational Research Association, but for comparable professional research groups in other fields. There are clear lessons to be learned from this project and, quite obviously, there is a need for additional inquiry regarding not only certain of the models studied here (such as those which appear promising) but other training vehicles as well. In view of the fact that the focus of the educational researchers's activity is the improvement of education for millions of our nation's citizens, the stakes are too high to permit this kind of inquiry to be a one-shot case study.

\*

For example, Dr. Robert Gagne was persuaded to prepare a position paper dealing with an important aspect of our deliberations, namely, the degree to which competency assessment of research professionals would relate to the conduct of training activities such as those we were supervising.

APPENDIX A

Evaluation of AERA Traveling Training Institute

"Bayesian Statistics and Interactive  
Computing Systems"

Directed by

Melvin R. Novick  
American College Testing Program

and

Donald Meyer  
University of Pittsburgh

Oct. 6-9, 1972  
University of Massachusetts

## Evaluation Design

The design, development of instruments, and supervision of the evaluation of the traveling training institutes are the responsibility of Blaine Worthen, with the assistance of Marilyn Averill, a doctoral student at the Lab of Educational Research, University of Colorado. Instrument Number I collected demographic information from the participants. The second instrument was designed to assess cognitive outcomes of the Institute. Affective changes resulting from participant attendance at the Institute was assessed by the third instrument. General evaluation data from both the staff and participants were gathered from two critique forms (staff instrument number I and participant instrument number IV). Instruments for a follow-up study of participants, non-attendees and non-applicants will be administered to the appropriate groups in approximately four months.

## Instrument Administration and Analyses

Instrument #1 was administered to each participant at the beginning of the Institute. At the same time, one half<sup>1</sup> of the attendees were randomly selected to respond to Participant Instruments #2 and #3 (the cognitive and affective measures); these instruments were also given to the entire group as a post-test at the conclusion of the Institute. The resulting evaluation design appears below.

R	$O_1$	X	$O_2$
R			$O_3$

Participant Instrument #4 and Staff Instrument #1 were also administered at the conclusion of the Institute to all persons in their respective groups.

The following analyses were performed on the data:

- (1) descriptive statistics, comprising simple tabulations with means and standard deviations where appropriate, for all instruments.
- (2) one way ANOVAs between total pre and post-test scores on Participant Instruments #2 and #3, for the following comparisons:  $O_1 - O_2$ ,  $O_1 - O_3$ , and  $O_2 - O_3$ .
- (3) contingency tables; employing institution and total amount of money expended for the Institute by each participant were used as stratifying variables and plotted against responses to items 4, 23 and 24 on Participant Instrument #4.

1. Due to the invited guest in attendance, these instruments were erroneously administered to a few individuals. All but 2 of their responses were identified and eliminated from the final tabulations reported.

Institute Participants

Participants were selected for the session by the co-director of the Institute, Melvin Novick. The application form (copy enclosed in the appendix) was the principal vehicle employed to screen applicants. There were sixteen registered participants attending the session. In addition, a limited number (approximately eight) students and faculty of the University of Massachusetts were invited (on a complimentary basis) to attend the Institute. There was a considerable variation in the amount of time these individuals spent at the Institute during the four days.

Table 1 contains a description of participants on several characteristics. The majority of participants were employed in institutions of higher education, held advance degrees, primarily engaged in teaching and members of AERA's Division D (Measurement and Research Methodology). Seventy percent of the participants entered the Institute with limited experience in Bayesian statistics, with only two individuals having no prior experience in the subject. The desire to gain new skills or knowledge was the predominant reason participants attended the Institute.

One half of the participants lived within 100 to 500 miles of the site of the Institute and two individuals lived within the immediate vicinity (less than 50 miles). Either a sense of immediacy or other personal or professional reasons is suggested as the dominant motivation for the five persons who traveled over 1,000 miles to attend.

Table 1

Description of Participants

<u>Employing Institution</u>				
College or University	Regional Center or Lab.	Federal or State Dept. of Education	Student	Other
11	2	3	1	3

<u>Primary Professional Role</u>				
Teacher	Administrator	Researcher	Evaluator or Developer	Other
9	1	4	5	2

---

<u>Academic Degrees</u>		
Bachelor's	Master's	Doctorate
4	9	5

---

<u>Membership in Divisions of AERA</u>		
(B) Curriculum & Objectives	(C) Learning & Instruction	(D) Measurement & Research Methodology
1	4	14
(H) School Evaluation & Program Development	( ) Not presently a member of AERA	
1	6	

---

<u>Reasons for Attending the Institute</u>			
Desire to gain new skills or knowledge related to the topic.	Desire to improve existing skills or knowledge related to the topic.	Desire to discuss problems related to the topic with experts.	Other
18	6	6	2

---

<u>Prior Experience</u>			
No Experience	Limited Experience	Considerable Experience	Great Amount of Experience
2	14	4	0

---

<u>Distance of home from Institute site</u>				
less than 50 miles	50-100 miles	101-500 miles	501-1,000 miles	more than 1000 miles
2	1	10	2	5

---



Content of the Institute

The pretest evaluation instrument were administered to participants at the opening session of the Institute. Study materials and a tentative agenda were distributed to participants prior to the Institute. The preliminary agenda was reorganized considerably during the four days as a result of the status of the computer. An announcement was made the first day that the staff would be available for consultation during certain times when lectures were not scheduled. Terminal time was scheduled during the four days for both class and individual instructional purposes.

Evaluation Results

Cognitive.

The tabulation of the number of correct responses on the pre and post tests (repeated measures) are included in Table II.

Table II  
Frequency of Correct Answers for Pretest (n=10) and Posttest (n=15) on Cognitive Instrument.

Question #	Pre Score	Percent	Post Score	Percentage	Percent Change
1.	6	(60%)	15	(100%)	+40%
2	4	(40%)	13	(87%)	+47%
3a	1	(10%)	3	(20%)	+10%
b	2	(20%)	9	(60%)	+40%
c	8	(80%)	14	(93%)	+13%
d	2	(20%)	9	(60%)	+40%
e	3	(30%)	4	(27%)	- 3%
f	2	(20%)	5	(33%)	+13%
g	2	(20%)	6	(40%)	+20%
h	2	(20%)	2	(13%)	- 7%
4	9	(90%)	15	(100%)	+10%
5	7	(70%)	13	(86%)	+16%
6	8	(80%)	14	(93%)	+13%
7	0	( 0%)	5	(33%)	+33%
8	2	(20%)	14	(93%)	+73%
9	6	(60%)	13	(86%)	+26%
10	5	(50%)	9	(60%)	+10%
11	8	(80%)	14	(93%)	+13%
12	6	(60%)	8	(53%)	- 7%

13	3	(30%)	4	(27%)	- 3%
14	5	(50%)	3	(33%)	-17%
15	8	(80%)	12	(80%)	0%
16	7	(70%)	15	(100%)	+30%
17	1	(10%)	10	(67%)	+57%
18	6	(60%)	12	(80%)	+20%
19	3	(30%)	13	(86%)	+56%
20	8	(80%)	6	(40%)	-40%

Pretest Mean	22.6	(49%)
Posttest Mean	31.2	(68%)
Change	8.6	(19%)

Analyses of variance were performed between total pre and post test scores on this instrument. The results are presented in Table III.

The instrument was constructed by Victor Wilson after consultation with Dr. Novick concerning the content and objectives of the Institute. An item analysis was not computed and hence no reliability figures are reported. Each item of the cognitive test was counted as two points, with the exception of question no. 3, which was assigned a weight of 8 points, thus the 20-item test contained a total of 46 points.

Significant differences were found at the .05 level, both between the pretest ( $O_1$ ) the same group on the posttest ( $O_2$ ), and between the pretest ( $O_1$ ) and the unpretested posttest group ( $O_3$ ). Therefore, within the limitations of the data reported, there was a significant over-all gain in participants' understanding of the content of this Institute as measured by the 20 item instrument. No significant differences were found between the two posttest groups suggesting that there was no pre-test interaction effect for this instrument.

Table III

Analyses of Variance of Scores on Participant Instrument #2,  
Cognitive Measure

Pretest ( $O_1$ ,  $n = 10$ ) vs. same group on post-test ( $O_2$ ,  $n = 8$ )

SV	SS	df	MS	F	p
Treatment	272.25	1	272.25	5.96	.05
Error	319.75	7	45.68		
Total	592.00	8			

Pretest ( $O_1$ ,  $n = 10$ ) vs. unpretested group on post-test ( $O_3$ ,  $n = 7$ )

SV	SS	df	MS	F	p
Treatment	271.11	1	271.11	5.2015	.05
Error	781.83	15	52.12		
Total	1052.94	16			

Pretested post-test ( $O_2$ ,  $n = 8$ ) vs. unpretested post-test ( $O_3$ ,  $n = 7$ )

SV	SS	df	MS	F	p
Treatment	3.10	1	3.10	.1819	n.s.
Error	221.30	13	17.02		
Total	224.40	14			

### Attitude Toward Bayesian Statistics

The tabulation of responses to Participant Instrument No. 3, the affective measure, is presented in Table IV. An analyses of variance performed on these results (Table V) showed a significant difference both between the pretest group ( $O_1$ ) and the same group on the posttest ( $O_2$ ) and between the pretest group ( $O_1$ ) and the unpretested posttest group ( $O_3$ ). The analysis of variance between the two posttest groups (pretest and unpretested) revealed no significant difference which again suggests no pretest interaction effect for the instruments. Thus it appears the Institute was successful in positively influencing participants' attitude toward Bayesian statistics.

### Participant Critique

Participant overall reaction to the Institute, as surveyed by the critique form (Participant instrument number 4), was very positive. The tabulation of responses to most items from this instrument, along with a means and standard deviation, when appropriate, are presented in Tables VI, VII, and VIII. Some items have been deleted from this report as they pertain to the evaluation of the concept of Traveling Training Institutes rather than to the evaluation of this particular Institute.

The vast majority of participants responded positively to the importance of the Institute's topic for educational research and practice. All of the participants felt the topic should be treated again in future Institutes. The staff selected to present the topic was judged to be very well qualified. Nearly all the participants considered the date and location of the Institute convenient for them (data from Participant Instrument Number 1). Seven of the 16 participants felt that the tuition fee was too high with 9 respondents reacting neutrally to the question. Stratification of responses according to the total amount of money spent for each participant to attend the Institute revealed no meaningful relationships between the amount of money paid and the attitude towards the amount of the tuition fee, the topic, or usefulness of the Institute.

Participants were asked to record total expenses (including travel, tuition fee, living expenses, etc.) they had incurred by attending the Institute, as well as the amount of money they personally had to spend to attend the Institute (i.e., non-reimbursable expense items). Total costs ranged from \$10 to \$700, with a mean of about \$370 in a median of \$330. However, personal expenses ranged from \$0 to \$200, with a mean of about \$30 and a median of \$10. Only one individual was personally responsible for expenses over \$100.

Table IV

Attitudes toward Bayesian Statistics

Questions	Strongly Disagree		Disagree		Undecided or Neutral		Agree		Strongly Agree	
	$\frac{\text{Pretest}}{X}$	S	$\frac{\text{Pretest}}{X}$	S	$\frac{\text{Pretest}}{X}$	S	$\frac{\text{Pretest}}{X}$	S	$\frac{\text{Pretest}}{X}$	S
1. There is a real need for broader use of Bayesian statistics for making decisions about the significance of educational studies.	2.62	.87	1.94	.57	2.44	.81	2.00	.73	1.38	.62
2. Developing theories and applications of Bayesian statistics will contribute more to the field of statistics than similar work on any other type of statistical approach.	3.08	.76	2.23	.60	2.44	.81	2.00	.73	1.38	.62
3. Bayesian statistics simply confuse the average researcher and do more harm than good.	2.62	.65	2.23	.60	2.44	.81	2.00	.73	1.38	.62
4. Bayesian statistics should be applied even to studies which have used classical statistics for their analysis.	2.23	.60	2.23	.60	2.44	.81	2.00	.73	1.38	.62
5. The assumptions underlying Bayesian statistics are simply too much to swallow.	2.50	.52	2.23	.60	2.44	.81	2.00	.73	1.38	.62
6. Using Bayesian statistics in my work does not appeal to me.	2.23	.60	2.23	.60	2.44	.81	2.00	.73	1.38	.62
7. Bayesian statistics violate the assumptions underlying classical statistics and offer little in return.	2.23	.60	2.23	.60	2.44	.81	2.00	.73	1.38	.62
8. Bayesian statistics result in arbitrary judgments about effects of treatment.	2.54	.78	2.23	.60	2.44	.81	2.00	.73	1.38	.62

Table IV (cont.)

Questions	Strongly Disagree		Disagree		Undecided or Neutral		Agree		Strongly Agree	
	$\frac{\text{Pretest}}{X}$	S	$\frac{\text{Pretest}}{X}$	S	$\frac{\text{Posttest}}{X}$	S	$\frac{\text{Posttest}}{X}$	S	$\frac{\text{Posttest}}{X}$	S
9. Bayesian statistics is the only really defensible way to analyze most educational data.	3.62	.65			3.60	.74				
10. There is too much attention paid to Bayesian statistics nowadays.	2.77	.93			1.67	.49				
11. Bayesian theory is too complex to be useful to most statisticians.	2.38	.77			1.94	.68				
12. Educators do not receive sufficient training in Bayesian statistics.	1.85	.38			1.50	.63				

Note: The scale is weighted from 1 to 5 points along the continuum. By reversing the order in point allocation, the means displayed reflect only gains in a positive response direction.

Table V

Analyses of Variance of Scores on Participant Instrument #3,  
Attitudes Toward Bayesian Statistics

Analysis of variance between the pretest group and the same group on the posttest (repeated measures).<sup>1</sup>

SV	SS	df	MS	EMS	F	p
MEAN	13122.00	1	13122.00	18.0		
S (subjects)	233.00	8	29.13	2.0		
M (method)	80.22	1	80.22	9.0	5.69	.05
SM	112.78	8	14.10	1.0		

Analysis of variance between the pretest group, and the unpretested group on the posttest.<sup>2</sup>

SV	SS	df	MS	F	p
Treatment	217.39	1	217.39	14.22	.01
Error	275.16	18	15.29		

Analysis of variance between the two posttest groups (pretested and unpretested).<sup>1</sup>

SV	SS	df	MS	F	p
Treatment	4.19	1	4.19	.1870	n.s.
Error	313.75	14	22.41		

1) One student guest took both tests and has been included.

2) Students have been included.

Table VI

Tabulation of Participant Responses to Critique Items  
Relating to Pre-Institute Planning

Item							$\bar{x}$	s
1. How important do you feel the topic of this Institute is to educational research and/or evaluation?								
very important	1	2	3	4	5	very unimportant	2.38	1.45
	(5)	(7)	(1)	(0)	(3)			
2. How important do you feel the topic of this Institute is to educational practice?								
very important	1	2	3	4	5	very unimportant	2.13	1.09
	(4)	(9)	(2)	(0)	(1)			
4. Leaving aside the quality of instruction for the moment do you think the <u>topic</u> treated in this Institute should be treated again in future Institutes?								
definitely	1	2	3	4	5	definitely not	1.25	.45
	(13)	(3)	(0)	(0)	(0)			
18. In your opinion, the staff members were in general:								
very well-qualified	1	2	3	4	5	very unqualified	1.3.	.60
	(12)	(3)	(1)	(0)	(0)			
22. The meeting room facilities for the Institute were:								
excellent	1	2	3	4	5	poor	3.38	1.26
	(2)	(2)	(5)	(3)	(4)			
24. Considering what you have learned by attending this Institute (or any other benefits you have received from attendance), the tuition fee was:								
considerably too low	1	2	3	4	5	considerably too high	3.75	.86
	(0)	(0)	(9)	(4)	(3)			

Note: Frequencies are shown in parentheses.



Participant responses to the conduct of the Institute itself are reported in table VII. The content of the Institute was viewed as highly relevant to the topic advertised with staff objectives being very clear. A majority of the participants indicated the prerequisites for the Institute were clearly stated. Eight of the 16 respondents believed they entered the Institute with more than adequate preparation and only one individual felt he or she lacked the adequate prerequisites.

There were mixed reaction to the planning and organization of the Institute. This may be due in part to the lack of differentiation between the staff's conduct of the Institute and that of local coordination or logistic. Approximately one-half of the participants felt four days was insufficient to cover the topic adequately. The daily sessions were generally considered to be the right length of time but most variations considered the daily sessions too short.

The overall quality of the instruction in the Institute was judged to be very good. Lectures were considered interesting and informative, with a proper blend of discussion and sufficient opportunity to ask questions. The staff was reported to be very well prepared and were willing to seek the reaction of participants to their instructional procedures.

Responses to the open-ended questions were somewhat less positive than those of the structured items. Suggestions or recommendations for improving future Institutes are summarized in Table VIII. Items marked with an asterisk indicate items suggested by more than one respondent.

#### General Evaluation of the Institute

Overall participant reaction to the Institute is summarized in Table IX. The majority of the participants believed that what they had learned from the Institute would be useful to them in their work. None of the participants considered their learning experience as having no utility to their work. Nearly all the respondents stated they would attend the Institute if they had to choose again and would recommend it to a colleague.

Tabulation of Participant Responses to Items  
on Conduct of the Institute

<u>Item</u>							$\bar{x}$	s
3. How relevant was the content of the Institute to the topic that was advertised?							1.31	.48
highly relevant	1	2	3	4	5	not at all relevant		
	(10)	(5)	(0)	(1)	(0)			
5. The staff's objectives for this Institute were:							1.81	.91
very clear to me	1	2	3	4	5	very unclear to me		
	(7)	(6)	(2)	(1)	(0)			
6. The planning and organization of this Institute was:							2.73	1.28
excellent	1	2	3	4	5	poor		
	(2)	(6)	(3)	(2)	(2)			
7. Overall, was the Institute long enough to cover the topic adequately?							3.44	1.03
considerably too long	1	2	3	4	5	considerably too short		
	(1)	(1)	(6)	(5)	(3)			
8. As a rule, <u>daily</u> sessions were:							3.31	.79
considerably too long	1	2	3	4	5	considerably too short		
	(0)	(1)	(10)	(3)	(2)			
9. Do you feel all necessary prerequisites were clearly stated in information you received prior to the Institute? (check ONE)								
<u>12</u> Yes, they were clearly stated								
<u>0</u> No, they were ambiguous								
<u>3</u> No prerequisites were listed								
10. Did you receive advance reading materials from the Institute director(s) early enough to read them prior to the Institute? (Check ONE)								
<u>14</u> Yes, materials came early enough								
<u>0</u> No, materials came too late								
<u>2</u> No materials were sent								
11. Do you think you entered the Institute with the appropriate prerequisites or prior knowledge to make what you learned there of value to you?							2.44	.81
I had more than enough preparation	1	2	3	4	5	I was seriously lacking in preparation		
	(2)	(6)	(7)	(1)	(0)			

Table VII (cont.)

Tabulation of Participant Responses to Items  
on Conduct of the Institute

<u>Item</u>							$\bar{x}$	s
12. How often did the instructional procedures take into account variability in prior knowledge brought to the Institute by participants?							2.94	1.06
always	1	2	3	4	5	never		
	(0)	(7)	(5)	(2)	(2)			
13. Overall, the quality of instruction in this Institute was:							1.88	.72
excellent	1	2	3	4	5	poor		
	(5)	(8)	(3)	(0)	(0)			
14. The instruction was generally:								
too lecture-oriented		1	2	3	4	5	too discussion-oriented	
		(0)	(1)	(15)	(0)	(0)		2.94
very interesting		1	2	3	4	5	very uninteresting	
		(7)	(7)	(2)	(0)	(0)		1.69
very informative		1	2	3	4	5	very uninformative	
		(9)	(6)	(1)	(0)	(0)		1.50
15. Opportunities for asking questions and studying were:								
sufficient	1	2	3	4	5	insufficient		
	(10)	(5)	(0)	(1)	(0)		1.50	
16. The amount of work the staff required of you was:							3.44	.63
far too much	1	2	3	4	5	far too little		
	(0)	(0)	(10)	(5)	(1)			
17. Opportunities for you to interact with the staff with respect to problems in your own work which relate to the topic were:							1.88	1.02
sufficient	1	2	3	4	5	insufficient		
	(6)	(8)	(1)	(0)	(1)			
18. In your opinion, the staff members were in general:							1.44	.73
very well-prepared	1	2	3	4	5	very unprepared		
	(11)	(3)	(2)	(0)	(0)			

Table VII (cont.)

Tabulation of Participant Responses to Items  
on Conduct of the Institute

Item							$\bar{x}$	s
19. Did the staff seek your reactions to their instructional procedures, scheduling, etc. <u>during</u> the Institute?							2.25	1.06
frequently	1	2	3	4	5	never		
	(3)	(7)	(5)	(0)	(1)			
20. Did it appear to you that your reactions led to improve-							2.25	.77
frequently	1	2	3	4	5	never		
	(4)	(5)	(7)	(0)	(0)			
21. The formal evaluation of this Institute by the "outside evaluation" (e.g., those instruments) was:							1.88	.89
not at all disruptive	1	2	3	4	5	very dis-		
	(5)	(8)	(2)	(1)	(0)	ruptive		

Note: Frequencies are shown in parentheses.

Table VIII

Participant suggestions for improving the session from responses to open-ended questions

- \* Have available packages of sample or real data with hypothetical situations to make terminal time more meaningful
- \* Omit value judgments relative to the merits of Bayesian vs Classical statistics

Increase the pace of instruction

More lectures and less terminal time

Earlier social get-together

More time for discussion

List of participants and their areas of interest

- \* Conduct evening sessions

Conduct lectures in the morning and terminal time in the evening

- \* Improved lodging and meeting facilities

More emphasis on the intuitive meaning of formulas

Condense Institute to 3 days

A list of the order in which materials will be discussed

Table IX

Tabulation of Participant Responses to Items on the  
General Evaluation of the Institute

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<u>Item</u>							$\bar{x}$	s
23. Do you anticipate that what you have learned from the Institute will be useful to you in your own work?								
definitely	1	2	3	4	5	definitely not	2.00	.73
	(4)	(9)	(3)	(0)	(0)			
27. If you were able to choose over again, would you attend this Institute?								
	<u>(13)</u> Yes	<u>(2)</u> No		<u>(1)</u> Uncertain				
28. If this Institute were held again, would you recommend to a colleague that they attend?								
	<u>(14)</u> Yes	<u>(0)</u> No		<u>(2)</u> Uncertain				

---

Note: Frequencies are shown in parentheses.

Evaluation of AERA Traveling Training Institute

"Bayesian Statistics and Interactive  
Computing Systems"

Directed by

Melvin R. Novick  
American College Testing Program

and

Donald Meyer  
University of Pittsburgh

January 12 - 15, 1973  
University of South Florida

The evaluation report of the second Bayesian Training Institute is being presented in a somewhat abbreviated form. The evaluation design, administration, selection of participants, appendix, etc. that have remained constant and reported in the first evaluation report have been deleted.

Institute Participants who Attended this Institute

There were twenty six registered participants who attended the Institute. In addition, approximately ten students and faculty of the University of South Florida attended on a complimentary basis.

The description of participants, Table I, portrays characteristics similar to those who attended the first Institute. Differences occur in participants' wider membership in AERA divisions, although Division D remained as the predominate division. As a group, participants had less experience in the subject matter than those attending the University of Massachusetts Institute. This might be expected as the size of the class increases. More participants travelled a greater distance to attend this Institute than those participating in the earlier session. This may have implications for the concept of travelling training institutes in reducing costs and the importance of the site as an attraction to participants.

Table I

Description of Participants

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<u>Employing Institution</u>			
College or University	Regional Center or Lab.	Federal or State Dept. of Education	Student
22	1	2	1



---

Primary Professional Role

Teacher	Administrator	Researcher	Evaluator or Developer	Student
16	2	4	3	1

---

Academic Degrees

Master's	Doctorate
7	19

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Membership in Divisions of AERA

(A) Administration 3	(B) Curriculum & Objectives 5	(C) Learning & Instruction 3
(D) Measurement & Research Methodology 13	(E) Counseling & Human Development 2	(F) History 1
(G) Social Context of Education 3	(H) School Evaluation & Program Development 3	( ) Not presently a member of AERA 10
( ) Student 1		

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Reasons for Attending the Institute

Desire to gain new skills or knowledge related to the topic. 22	Desire to improve existing skills or knowledge related to the topic. 4	Desire to discuss problems related to the topic with experts. 0
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Prior Experience

No Experience	Limited Experience	Considerable Experience	Great Amount of Experience
8	16	2	0

---

Distance of home from Institute site

less than 50 miles	101-500 miles	500-1,000 miles	more than 1,000 miles
2	1	1	10

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Evaluation Results

Cognitive

The tabulation of the number of correct responses on the pre-and post-tests (repeated measures) are included in Table II below. As in the first Institute, a significant overall gain was recorded in participant understanding of the content of the Institute as measured by the twenty item test.

Table II

Frequency of Correct Answers for Pretest (n=10) and  
Posttest (n=24)<sup>1</sup> on Cognitive Instrument

Question #	Pre Score		Post Score	
		%		%
1	6	60	21	88
2	3	30	19	79
3a	1	10	6	25
b	3	30	4	17
c	8	80	21	88
d	2	20	7	29
e	0	0	5	21
f	1	10	5	21
g	0	0	8	33
h	1	10	7	29
4	10	100	23	96
5	5	50	13	54
6	6	60	18	75
7	1	10	13	54
8	4	40	20	83
9	10	100	23	96
10	2	20	20	83
11	10	100	21	88
12	3	30	17	71
13	3	30	5	21
14	3	30	8	33
15	9	90	22	92
16	6	60	18	75
17	2	20	16	67
18	8	80	23	96
19	4	40	20	83
20	4	40	8	33

<sup>1</sup> Note: Two participants did not complete the post-test instrument.

The analysis of variance performed between the total pre-and post-test scores on this instrument are presented in Table III. No significant differences were found between the two post-test groups suggesting that as in the previous evaluation, there were no pre-test interaction effects for this instrument.

Table III

Analyses of Variance of Scores on Participant Instrument #2,  
Cognitive Measure

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Pretest ( $O_1$ ,  $n = 10$ ) vs. same group on post-test ( $O_2$ ,  $n = 14$ )

SV	SS	df	MS	F	p
Mean	13676.45	1	13676.45		
Treatment	272.25	1	272.25		
S (Subjects)	288.05	9	32.01		
M (Measures)	451.25	1	451.25	109.03	.001
SM	37.25	9	4.14		

---



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Pretest ( $O_1$ ,  $n = 10$ ) vs. unpretested group on post-test ( $O_3$ ,  $n = 14$ )

SV	SS	df	MS	F	p
Treatment	382.73	1	382.73	13.4525	.005
Error	625.90	22	28.45		
Total	1008.63	23			

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Pretested post-test ( $O_2$ ,  $n = 10$ ) vs. unpretested post-test ( $O_3$ ,  $n = 14$ )

SV	SS	df	MS	F	p
Treatment	11.43	1	11.43	.4672	n.s.
Error	538.40	22	24.47		
Total	549.83	23			

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### Attitude Toward Bayesian Statistics

The tabulation of responses to Participant Instrument No. 3, the affective measure, is presented in Table IV. An analyses of variance performed on these results appear in Table V. Contrary to the results of the first Institute, no significant difference was found between the pre-test group ( $O_1$ ) and the unpretested post-test group ( $O_3$ ). Also there was no significant difference found between the two post-test groups ( $O_2$  and  $O_3$ ). However a significant difference did occur between the pre-test group ( $O_1$ ) and the same group on the post-test ( $O_2$ ).

Table IV  
Attitudes toward Bayesian Statistics

Questions	Strongly Disagree		Disagree		Undecided or Neutral		Agree		Strongly Agree	
	$\bar{X}$	S	$\bar{X}$	S	$\bar{X}$	S	$\bar{X}$	S	$\bar{X}$	S
1. There is a real need for broader use of Bayesian statistics for making decisions about the significance of educational studies.	2.00	1.00			1.75	.79				
2. Developing theories and applications of Bayesian statistics will contribute more to the field of statistics than similar work on any other type of statistical approach.	2.55	.93			2.38	1.06				
3. Bayesian statistics simply confuse the average researcher and do more harm than good.	1.73	.79			1.79	.72				
4. Bayesian statistics should be applied even to studies which have used classical statistics for their analysis.	1.91	.83			2.21	.93				
5. The assumptions underlying statistics are simply too much to swallow.	2.18	.75			1.71	.81				

Questions	Strongly Disagree		Disagree		Undecided or Neutral		Agree		Strongly Agree	
	$\bar{X}$	S	$\bar{X}$	S	$\bar{X}$	S	$\bar{X}$	S	$\bar{X}$	S
6. Using Bayesian statistics does not appeal to me.	1.73	.47			1.67	1.05				
7. Bayesian statistics violates the assumptions underlying classical statistics and offer little in return.	2.55	.93			1.50	.59				
8. Bayesian statistics result in arbitrary judgments about effects of treatment.	2.82	1.25			1.92	1.06				
9. Bayesian statistics is the only really defensible way to analyze most educational data.	3.73	.65			2.71	1.23				
10. There is too much attention paid to Bayesian statistics nowadays.	2.18	.60			1.54	.51				
11. Bayesian theory is too complex to be useful to most statisticians.	2.00	.77			1.75	.61				
12. Educators do not receive sufficient training in Bayesian statistics.	2.00	.77			1.50	.51				

Note: The scale is weighted from 1 to 5 points along the continuum. By reversing the order in point allocation when appropriate, the means displayed reflect only gains in a positive response direction.

Table V

Analyses of Variance of Scores on Participant Instrument #3,  
Attitudes Toward Bayesian Statistics

Analysis of variance between the pretest group ( $O_1$ ,  $n = 11$ ) and the same group on the posttest ( $O_2$ ,  $n = 11$ ) (repeated measures).

SV	SS	df	MS	F	p
Mean	13010.23	1	13010.23		
S (subjects)	490.27	10	49.03		
M (measures)	204.05	1	204.05	9.9799	.05
SM	204.45	10	20.45		

Analysis of variance between the pretest group ( $O_1$ ,  $n = 11$ ) and the unpretested group on the posttest ( $O_3$ ,  $n = 13$ )

SV	SS	df	MS	F	p
Treatment	94.34	1	94.34	3.20	n.s.
Error	647.62	22	29.44		
Total	741.96	23			

Analysis of variance between the two posttest groups (pretested ( $O_2$ ,  $n=11$ ) and unpretested ( $O_3$ ,  $n=13$ ))

SV	SS	df	MS	F	p
Treatment	26.57	1	26.57	.5636	n.s.
Error	1037.26	22	47.15		
Total	1063.83	23			



## Participant Critique

Participant overall reaction to the Institute, as surveyed by the critique form, was very positive. The tabulation of responses to most items from this instrument, along with a means and standard deviation, when appropriate, are presented in Tables VI, VII and VIII.

As in the first institute, participants responded positively to the importance of the Institute's topic for educational research and practice. All but one of the participants felt the topic should be treated again in future institutes. The staff selected to present the topic was judged to be very well qualified. Fifteen of the twenty-four participants felt that the tuition fee was about right. A majority of the participants considered the meeting room facilities as poor.

Participants were asked to record the total expenses they had incurred by attending the Institute, as well as the amount of money they personally had to spend to attend the Institute. Total cost ranged from \$175 to \$600 with a mean of about \$415 and a median of \$400. However, personal expenses ranged from \$0 to \$400, with a mean of about \$81 and a median of \$50.

Table VI

Tabulation of Participant Responses to Critique Items  
Relating to Pre-Institute Planning

<u>Item</u>						-	x	s
1. How important do you feel the topic of this Institute is to educational research and/or evaluation?								
very important	1	2	3	4	5	very unimportant	1.75	1.19
	(15)	(4)	(2)	(2)	(1)			
2. How important do you feel the topic of this Institute is to educational practice?								
very important	1	2	3	4	5	very unimportant	1.88	1.19
	(13)	(5)	(3)	(2)	(1)			
4. Leaving aside the quality of instruction for the moment do you think the <u>topic</u> treated in this Institute should be treated again in future Institutes?								
definitely	1	2	3	4	5	definitely not	1.33	.87
	(19)	(4)	(0)	(0)	(1)			
18. In your opinion, the staff members were in general:								
very well-qualified	1	2	3	4	5	very unqualified	1.13	.34
	(21)	(3)	(0)	(0)	(0)			
22. The meeting room facilities for the Institute were:								
excellent	1	2	3	4	5	poor	3.92	.93
	(6)	(2)	(5)	(10)	(7)			
24. Considering what you have learned by attending this Institute (or any other benefits you have received from attendance), the tuition fee was:								
considerably too low	1	2	3	4	5	considerably too high	3.29	.55
	(0)	(1)	(15)	(8)	(0)			

Note: Frequencies are shown in parentheses.

Participant responses to the conduct of the Institute itself are reported in Table VII. The content of the Institute was viewed as highly relevant to the topic advertised with staff objectives being very clear. A majority of the participants indicated the prerequisites for the Institute were clearly stated. Although ten of the twenty-four respondents believed they entered the Institute with more than adequate preparation, there were more participants in this Institute with a lesser amount of preparation than in the first Institute. Slightly more than one-half of the respondents indicated that the advance reading materials arrived too late for them to read prior to the Institute.

The planning and organization of the Institute was considered to be very good. Approximately one-half of the participants felt four days were somewhat insufficient to cover the topic adequately. The daily sessions were generally considered to be of the right length of time.

The overall quality of the instruction in the Institute was largely considered to be between very good and excellent. Lectures were judged to be very interesting and informative, with a proper blend of discussion (although variation from the norm considered daily sessions heavy on lectures) and had sufficient opportunity to ask questions. The staff was reported to be very well prepared and generally willing to seek the reaction of participants to their instructional procedures.

Table VII

Tabulation of Participant Responses to Items  
on Conduct of the Institute

Item							x	s
3. How relevant was the content of the Institute to the topic that was advertised?								
highly relevant	1	2	3	4	5	not at all relevant	1.38	.71
	(17)	(6)	(0)	(1)	(0)			
5. The staff's objectives for this Institute were:								
very clear to me	1	2	3	4	5	very unclear to me	1.75	.79
	(10)	(11)	(2)	(4)	(0)			
6. The planning and organization of this Institute was:								
excellent	1	2	3	4	5	poor	2.38	.92
	(3)	(12)	(7)	(1)	(1)			
7. Overall, was the Institute long enough to cover the topic adequately?								
considerably too long	1	2	3	4	5	considerably too short	3.58	.72
		(1)	(10)	(11)	(2)			
8. As a rule, <u>daily</u> sessions were:								
considerably too long	1	2	3	4	5	considerably too short	2.79	.59
	(0)	(7)	(15)	(2)	(2)			
9. Do you feel all necessary prerequisites were clearly stated in information you received prior to the Institute? (check ONE)								
<u>18</u> Yes, they were clearly stated								
<u>4</u> No, they were ambiguous								
<u>2</u> No prerequisites were listed								
10. Did you receive advance reading materials from the Institute director(s) early enough to read them prior to the Institute? (Check ONE)								
<u>9</u> Yes, materials came early enough								
<u>13</u> No, materials came too late								
<u>0</u> No materials were sent								
11. Do you think you entered the Institute with the appropriate prerequisites or prior knowledge to make what you learned there of value to you?							2.71	.91
I had more than enough preparation	1	2	3	4	5	I was seriously lacking in preparation		
	(2)	(8)	(9)	(5)	(0)			

Item							-	x	s
12. In terms of your background and preparation for the Institute, the content of this institute was:									
excellent	1	2	3	4	5	poor		3.17	.56
	(13)	(7)	(2)	(2)	(0)				
13. Overall, the quality of instruction in this Institute was:									
excellent	1	2	3	4	5	poor		1.71	.95
	(13)	(7)	(2)	(2)	(0)				
14. The instruction was generally:									
too lecture-oriented		1	2	3	4	5	too discussion-oriented	2.54	.66
		(2)	(7)	(15)	(0)	(0)			
very interesting	1	2	3	4	5	very uninteresting	1.71	.86	
	(12)	(8)	(3)	(1)	(0)				
very informative	1	2	3	4	5	very uninformative	1.67	.87	
	(13)	(7)	(3)	(1)	(0)				
15. Opportunities for asking questions were:									
sufficient	1	2	3	4	5	insufficient	1.33	.56	
	(17)	(6)	(1)	(0)	(0)				
Opportunities for studying were:									
sufficient	1	2	3	4	5	insufficient	1.54	.83	
	(15)	(6)	(2)	(1)	(0)				
16. The amount of work the staff required of you was:									
far too much	1	2	3	4	5	far too little	3.52	.73	
	(0)	(1)	(11)	(9)	(2)				
17. Opportunities for you to interact with the staff with respect to problems in your own work which relate to the topic were:									
sufficient	1	2	3	4	5	insufficient	2.04	.95	
	(8)	(9)	(5)	(2)	(0)				
18. In your opinion, the staff members were in general:									
very well-prepared	1	2	3	4	5	very unprepared	1.50	.88	
	(16)	(6)	(0)	(2)	(0)				

<u>Item</u>								x	s
19. Did the staff seek your reactions to their instructional procedures, scheduling, etc. <u>during</u> the Institute?	frequently	1	2	3	4	5	never	2.71	1.12
		(4)	(6)	(8)	(5)	(0)			
20. Did it appear to you that your reactions led to improvement?	frequently	1	2	3	4	5	never	2.71	1.30
		(3)	(7)	(6)	(4)	(2)			
21. The formal evaluation of this Institute by the "outside evaluation" (e.g., those instruments) was:	not at all dis-	1	2	3	4	5	very dis-	1.70	.97
	ruptive	(14)	(3)	(5)	(1)	(0)	ruptive		

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Note: Frequencies are shown in parentheses.

Responses to the open-ended questions were somewhat less positive than those of the structured items. Suggestions or recommendations for improving future Institutes are summarized in Table VIII. Aspects of the Institute that the participants felt were of considerable value are listed in Table IX.

Table VIII

Participant suggestions for improving the Institute  
from responses to open-ended questions

- 
- Individually prescribed instruction and criterion referenced lectures lacked closure. Should be condensed or should be omitted. (10)
- Real data should be available for analysis or participants should be instructed as to what kind of data could be analyzed and told to bring them to the Institute (9)
- Difficulty of computer being down - plan for alternative computing facilities (6)
- More interactive computing time (3)
- Schedule some free time (3)
- More examples and applications of Bayesian statistics (3)
- Provide for small group discussions and individuals to pursue their special needs (3)
- Better meeting facilities and non-smoking in the room (2)
- An intuitive feel for Bayesian was developed only on the last day -- reverse the structure (2)
- Omit football "game" (3)
- Institute to be spaced over more days (2)
- Spend less time on the computer (1)
- Better orientation of group to the facilities, program and each other (1)
- There was too much assumed in practical applications (1)
- Allow the schedule to accommodate more informal discussion and reading or study (1)
- Shorter lectures (1)
- List of fellow participants (1)
- Advanced reading materials (1)
- Omit criticism of "classical statistics" (1)
- Omit lectures by Novick, Ferguson, Savage and Isaacs (1)
- Institute should not be held over the weekend (1)
- Simultaneous lectures by staff would provide for alternatives (1)
- Analysis of questions from the group should be solved by lecturers (1)

Table IX

Aspects of the Institute believed to be of  
considerable value

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Presentations and lectures of Don Myers	(8)
Use of terminals	(3)
Informal discussions with staff	(3)
Introduction to Bayesian Point of View	(3)
Opportunity to put practice the theory	(2)
Techniques and strategy of analysis	(1)
Confirmed my own implicit philosophy of "know your variable in research"	(1)
Clarification of Bayesian Analysis	(1)
Discussion of criterion reference teaching	(1)
Critical attitude toward blindly manipulative statistics	(1)

Note: Frequencies are shown in parentheses

#### General Evaluation of the Institute

Overall participant reaction to the Institute is summarized in Table X. The vast majority of the participants believed that what they had learned from the Institute would be useful to them in their work. Only one of the participants considered the learning experience as having no utility to his or her work. Nearly all the respondents stated that they would attend the Institute if they had to choose again and would recommend attendance at the Institute to a colleague.



Table X

Tabulation of Participant Responses to Items on the  
General Evaluation of the Institute

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<u>Item</u>							x	s
23. Do you anticipate that what you have learned from the Institute will be useful to you in your own work?								
definitely	1	2	3	4	5	definitely not	1.67	.92
	(12)	(10)	(1)	(0)	(1)			
27. If you were able to choose over again, would you attend this Institute?								
(20) Yes		( 2) No		( 2) Uncertain				
28. If this Institute were held again, would you recommend to a colleague that they attend?								
(20) Yes		( 2) No		( 1) Uncertain				

---

Note: Frequencies are shown in parentheses

## Summary and Recommendations

Participant overall reaction to the second Bayesian Institute was quite positive. The importance of the topic, qualifications and preparation of the staff, quality of the instruction, and organization were all considered to be between good and excellent. A significant learning gain was recorded on the cognitive measure and nearly all the participants would recommend attendance at the Institute to one of their colleagues.

Although participants generally reacted highly positively to the training Institute, many of their suggestions for improvement are worthy of careful consideration especially those items from the open-ended questions that were common to a number of participants. Specifically such areas as having sample data available for analysis, lectures on individually prescribed instruction and criterion referenced testing, back-up capability in the event of computer failure, and providing options in the schedule that might accommodate the variety of individual needs or interests of the participants.

In addition to the participant suggestions, many of which I concur with, I would like to mention a few other items that are not directly related to the data garnered from the questionnaires. For the most part they represent my subjective opinions as well as informal conversations with a number of participants.

Professor Savage's presentation on Sunday did not seem to be especially relevant to the topic of the Institute. A two hour "book review" of a general statistics book of readings may have been interesting and informative to some, but in light of the content to be covered in four days (and the respondents who felt more time was needed to cover the topic), devoting nearly an entire morning of one day to such a lecture might have

been better utilized in other ways.

Attention still must be given to securing better meeting facilities and insuring the operating status of the computer. I believe a solution to this latter problem will improve the relatively heavy amount of lectures during the first two days (when the computer was down) and provide participants with an option of attending a lecture or working on the computer.

I would still advocate implementation of some type of a daily formative evaluation mechanism. I think this was more important for this Institute where the larger number of participants formed a group that was more diverse in background, experience and interest. A final suggestion concerns the instructional staff being present at certain daily sessions. I think some of the advantages that might be realized are instructors knowing exactly what material was or was not covered, the possibility of answering or clarifying audience questions in alternative ways, insure that similar notation is used (e.g.,  $s^2$  - sum of squares or variance), and provide the lecturer with a type of formative evaluation for his presentation.

The most noticeable difference I observed in this Institute from the first session was the more concentration placed on the content of Bayesian statistics vs. a "hard sell" philosophical approach. Having the social event (dinner) earlier in the week and the establishment of office hours I believe were generally welcomed by the participants.

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EVALUATION OF AERA TRAVELING INSTITUTE NO. 4  
'Alternative Conceptions of Evaluation'  
Tampa, Florida -- January 18-19, 1973

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This report serves as the second in the series of reports which comprise the formative evaluation of the AERA Traveling Institute Series on "Alternative Conceptions of Evaluation." That institute was conducted by Michael Scriven, Daniel Stufflebeam, and Diane Reinhard. It is assumed that present readers will have the first report in this series (by Averill and Worthen) available to them, and therefore certain information and attachments available in that report are not included here.

The institute was held Thursday and Friday, January 18-19, 1973, at the University of South Florida, Tampa, Florida. The remainder of this report is divided into two major sections, description of the institute and evaluation of the institute. At the conclusion of the report, a summary and some recommendations for future institutes are presented.

#### DESCRIPTION OF THE INSTITUTE

Three sub-sections are included in this part of the report. They are (1) pre-institute planning, (2) institute participants, and (3) conduct of the institute.

##### Pre-institute Planning

Following recommendations made by Averill and Worthen in the first report, a packet of materials was sent to each participant approximately ten days before the beginning of the institute. Included in the packet were a tentative agenda, several papers written by Scriven and

Stufflebeam, and a memorandum from the staff in which it was suggested that the enclosed materials be read before arrival in Tampa.

Copies of the application form submitted by all participants were available for the staff to study. From these forms, it was possible to obtain information regarding participants' type of employment, educational history, and professional and scholarly interests. In addition, on the application form each participant briefly described his interest in attending the institute and how its topic was related to any specific needs or objectives he might have. It appeared obvious to the evaluator that staff members were able to identify many of the participants (in terms of where they came from and what their job was) upon being introduced to them by name; but it is unclear how much the information contained in the application forms affected the conduct of the institute. In other words, did Scriven use the particular examples he did in his presentation on, e.g., pathway evaluation because of certain things he might have read in participants' application forms? If so, then inclusion of that exercise on the application form seems worthwhile.

#### Institute Participants

The evaluator assumes that participants were chosen for the same reason as was stated in the Averill and Worthen report: ". . . on the basis of their expressed professional need for the content of the Institute, as indicated in a personal statement submitted with each application form (p. 4)." Of 48 applications submitted, 26 persons were chosen to attend the institute. Two of the 26 persons were unable to attend, so two replacements were chosen. A list of participants is given in Appendix A.

A description of institute participants on several characteristics is given in Table 1. As in the first institute in this series, institutions of higher education and public school systems employ the majority of the participants. In Portland, the percentage of participants so employed was 80; in Tampa, however, the percentage dropped to 65. This group of participants was quite evenly split among teachers, researchers, and evaluators, while in Portland the evaluators comprised almost half of the group. In terms of highest academic degree held, the Tampa group was very similar to the Portland group: the majority of persons hold a doctorate. A greater proportion of the Tampa group rated themselves as having had a great amount of experience with the topic of the institute (31% of the Tampa group vs. 21% of the Portland group). Averill and Worthen were surprised that two thirds of the Portland participants travelled over 500 miles (one way) to attend the institute, and half of them travelled over 1,000 miles (one way). That phenomenon occurred again in this institute: 88% of the participants lived at least 500 miles from Tampa, and 64% of them lived over 1,000 miles from the institute site. That so many persons would have travelled so far is even more surprising when one realizes that the mean amount that participants spent personally (i.e., the amount not reimbursed by their employing institutions) to attend the institute was about \$97.00

#### Conduct of the Institute

Participants began arriving at the institute site at 8:30 Thursday morning, January 18th. As they registered, pre-institute evaluation instruments were distributed to the participants. Participants were

Table 1  
Description of Participants (N = 26)

<u>Employing Institution</u>							
College or Univ.	Public School System	Educ. R&D Center	Regional Lab	Fed. Gov't.	State Dept. of Educ.	Student	Other
14	3	2	1	2	1	1	2
<u>Primary Professional Role</u>							
Teacher	Admin.	Researcher	Evaluator	Developer	Student	Other	
8	2	6	7	1	1	1	
<u>Highest Academic Degree</u>							
Masters				Doctorate			
4				21			
<u>AERA Divisional Membership</u>							
Administration (Div. A)	Curriculum & Objectives (Div. B)		Learning & Instruction (Div. C)		Measurement & Research Methodology (Div. D)		
2	6		8		11		
Counseling & Human Development (Div. E)	Social Context of Education (Div. G)		School Evaluation & Program Development (Div. H)		Not presently AERA member		
2	2		8		5		

Table 1 continued on next page

Table 1 (cont.)  
Description of Participants (N = 26)

<u>Primary Reason for Attending Institute</u>				
Desire to gain new skills or knowledge related to the topic		Desire to improve existing skills or knowledge related to the topic		Desire to discuss problems related to the topic with experts
6		12		6
<u>Factor or Experience with Topic of Institute</u>				
No Experience	Limited Experience	Considerable Experience		Great Amount of Experience
0	8	10		8
<u>Distance of Home from Institute Site</u>				
Less than 50 miles	50-100 miles	101-500 miles	501-1,000 miles	More than 1,000 miles
0	1	2	6	16

free to mingle and meet each other and/or browse over numerous evaluation-related materials which had been placed together in one room. (A list of the resource materials available in Portland was provided in Appendix D of the Averill-Worthen report; the same materials, with one or two additions, were available in Tampa as well.) At 9:30 a.m., participants and staff assembled in the meeting room and administrative details (e.g., agenda, plans for meals) were discussed. At 9:40, the substantive content of the institute was begun.



Scriven first gave an overview of alternative conceptions of evaluation and proponents of each conception. He then discussed pathway evaluation. Unlike the Portland institute, staff/participant discussion was present throughout all of the staff presentations. An animated discussion was in progress when, at 11:00, it was terminated so that relative adherence to the schedule could be maintained. After a five minute break, Stufflebeam began by referring to the articles which had been sent to participants in the pre-institute package. He then presented seven general classes of problems faced by evaluators and, after lunch, discussed one of them -- the conceptual problem -- in some detail. At 1:30 p.m., Reinhard spoke on the advocacy team approach to input evaluation. At 2:30, Scriven discussed meta-evaluation and goal-free evaluation. A fifteen minute break was given at 3:15. Following that, a general discussion was held, and at 4:15 the group began to work on the Sanders and McClellan evaluation materials (referenced in the Averill-Worthen report). At first, the staff seemed unclear about how to proceed, but finally it was decided that the total group would work on one or two of the problems and later, perhaps, small groups would be formed to work on additional problems. Once discussion began, about half of the group of participants contributed comments. At 5:15, this activity ceased and after questions which participants wanted the staff to answer on Friday were written and handed in to staff, participants and staff left for dinner and the rest of

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It would be useful to add an item to a post-institute evaluation instrument asking if the materials were read before arrival.

the evening. The 8:30 - 10:00 p.m. session scheduled for use of the resource table was not held.

At 9:15 Friday morning, the group was divided into four subgroups for more work with the Sanders-McClellan problems. The group reconvened at 10:15 for subgroup reports. After a short lunch break, Stufflebeam and Scriven discussed several of the topics which had been written down and turned in on Thursday (e.g., accountability, needs assessment, and criterion- vs. norm-referenced testing). This discussion continued until 2:45 p.m., at which time the final evaluation instruments were administered. After that, the institute adjourned.

#### EVALUATION OF THE INSTITUTE

The methods used to evaluate the institute and the results of that evaluation are contained in the remainder of this report.

##### Evaluation Plans and Procedures

The design for the evaluation of this institute was produced by Marilyn Averill and Blaine Worthen of the Laboratory of Educational Research, University of Colorado. All instruments used to evaluate the institute were designed by them; in two instances, the present evaluator modified items to pertain specifically to the content of the institute in Tampa. As in the Portland institute, there were four instruments to be completed by participants and one instrument to be completed by staff. The four participant instruments contained items requesting (1) demographic data (Instrument #1), (2) self-reported cognitive outcomes (Instrument #2), (3) affective outcomes (instrument #3), and (4) evaluative data about the content and conduct of the institute (Instrument #4). The staff instrument likewise contained questions

of an evaluative nature about the conduct of the institute.

Although Averill and Worthen had suggested in their report of the Portland institute that a cognitive achievement test might be a worthwhile addition to the evaluation instruments, one was not developed for use in Tampa. This evaluator is ambivalent about the usefulness of such an instrument. From reading Stufflebeam's goals for the institute (Averill & Worthen, p. 4), it seems that the overall objective of the institute is to make participants aware of evaluation problems and issues and not to reach specified cognitive outcomes. If this is the case, then it seems that a follow-up study of the type planned is as useful, if not more useful, than a cognitive achievement test.

#### Instrument Administration and Analyses

Instrument #1 (demographic data) was administered to each participant prior to the beginning of institute activities. At the same time, 13 of the 26 participants were chosen randomly to respond to Instruments #2 and #3 (cognitive and affective measures). Instruments #2, #3, and #4 and the staff instrument were administered to the total group at the conclusion of the institute. The design of the evaluation appears below:

$$\begin{array}{cccc} R & O_1 & X & O_2 \\ & & X & O_3 \end{array}$$

where  $O_1$  is the 13 responses to Instruments #2 and #3 before the institute,  $O_2$  is the responses to Instruments #2 and #3 from those same 13 participants, and  $O_3$  is the responses to Instruments #2 and #3 made by the remaining 13 participants at the end of the institute.

The following analyses were performed:

- (1) Descriptive statistics (tabulations with means and standard deviations where appropriate) for all instruments.
- (2) One-way analysis of variance between total pre- and post-institute scores on instruments #2 and #3, for the following comparisons:  $O_1 - O_3$ ,  $O_2 - O_3$ .
- (3) Analysis of variance (repeated measures design) between total pre- and post-institute scores on Instruments #2 and #3 for the comparison  $O_1 - O_2$ .

The analyses were performed by Marilyn Averill at the Laboratory of Educational Research, University of Colorado.

#### Evaluation Results

The results of this evaluation are organized under the three evaluative participant instruments and the one staff instrument which were used in the evaluation.

##### Self-Report of Knowledge (Instrument #2)

Tabulations of pre- and post-institute responses on the self-report of knowledge are presented in Table 2. Analyses of variance were performed between total pre- and post-institute scores on this instrument; results are shown in Table 3. Significant differences at the .001 level were found between the pre-institute scores ( $O_1$ ) and the post-institute scores for the same group ( $O_2$ ), and at the .05 level between the pre-institute scores ( $O_1$ ) and the unpretested post-institute scores ( $O_3$ ). Since there was no significant difference between the two post-institute scores, it can be assumed that a pretest sensitization effect for this instrument was not a factor. Participants apparently

Table 2

Tabulation of Pre (N = 13) and Post (N = 25\*) Responses to Participant Instrument #2, the Self-report of Knowledge Inventory

Topic	Excellent		Good		Some		Little		None		Omit	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Problems evaluators have to deal with	4 (31)	6 (24)	4 (31)	16 (64)	4 (31)	3 (12)	1 (8)					
Alternative frameworks for dealing with evaluation problems	3 (12)		4 (31)	17 (68)	7 (54)	5 (20)	2 (15)					
Criteria for meta-evaluation			1 (8)	6 (24)	5 (38)	15 (60)	4 (31)	4 (15)	2 (15)		1 (8)	
Definition of evaluation	1 (8)	11 (44)	9 (69)	12 (48)	2 (15)	2 (8)					1 (8)	
Cost considerations in evaluation			5 (38)	13 (52)	3 (23)	8 (32)	5 (38)	3 (12)				
Evaluation designs	1 (8)	2 (8)	2 (15)	4 (16)	6 (46)	10 (40)	4 (31)	7 (28)	2 (8)			
Procedures for site visit evaluation	2 (15)	4 (16)	4 (31)	11 (44)	2 (15)	6 (24)	4 (31)	4 (16)	1 (8)			
The role of values in evaluation			4 (16)	12 (48)	5 (38)	8 (32)	5 (38)	1 (4)	2 (15)		1 (8)	
Emergent techniques for working on evaluation problems			4 (16)	18 (72)	6 (46)	2 (8)	4 (31)	1 (4)	1 (8)			
Evaluation methodology	2 (8)		3 (23)	10 (40)	5 (38)	10 (40)	4 (31)	3 (12)			1 (8)	
How to implement a strategy for solving evaluation problems	1 (8)	6 (24)	4 (31)	14 (56)	7 (54)	4 (16)	1 (8)	1 (4)				
Roles of the evaluator	3 (23)	5 (20)	5 (38)	12 (48)	3 (23)	6 (24)	2 (15)	1 (4)	1 (4)		1 (4)	

\* One person failed to complete this instrument, so total N = 25 rather than 26.

NOTE: Percent of total responses in parentheses.

Table 3

Analysis of Variance: Scores on Self-Report  
of Knowledge (Participant Instrument #2)

Comparison:  $O_1 - O_2$  (pre-institute,  $n = 13$ , vs. same 13 on post-institute)

SV	SS	df	MS	F	p
Subjects	923.85	12	76.99		
Treatment	408.04	1	408.04	47.78	.001
Residual	102.46	12	8.54		

Comparison:  $O_1 - O_3$  (pre-institute,  $n = 13$ , vs. unpretested post-institute  
 $n = 12^*$ )

SV	SS	df	MS	F	p
Treatment	215.14	1	215.14	4.52	.05
Error	1095.90	23	47.65		
Total	1311.04	24			

Comparison:  $O_2 - O_3$  (pretested post-institute,  $n = 13$ , vs. unpretested  
post-institute,  $n = 12^*$ )

SV	SS	df	MS	F	p
Treatment	26.26	1	26.26	.70	n.s.
Error	867.74	23	37.73		
Total	894.00	24			

\* One person from this group failed to complete the post-institute instrument, so total  $N = 25$  rather than 26.

perceived themselves as having significantly increased their understanding of evaluation-related topics as a result of the institute; but with no performance data on cognitive items to measure the validity of this self-reported knowledge, it is impossible to say whether the participants' perceptions are accurate or not. It can be said only that participants felt they increased their knowledge as a result of the institute.

### Attitudes toward Educational Evaluation (Instrument #3)

Tabulations of responses to Participant Instrument #3, the affective measure, are presented in Table 4. Analyses of variance performed on these results (see Table 5) indicate that there was no pretest sensitization effect caused by administering the instrument to participants before the institute, nor were there any significant differences between pre- and post-institute scores for either of the comparisons of interest ( $O_1 - O_2$  and  $O_2 - O_3$ ). The puzzling results found in the evaluation of the Portland institute (when the pre-institute administration of the instrument seemed to function as a retardant to affective growth, see p. 15 of the Averill-Worthen report) were not duplicated with this group of participants. On the whole, the persons in Tampa had positive attitudes toward evaluation both before and after the institute.

### Critique Form (Instrument #4)

A summary of responses to most items on the critique form is presented in Tables 6 - 9. As mentioned in the Averill-Worthen report (p. 19), some items were deleted from this formative report because they pertain to evaluation of the concept of traveling institutes rather than to the evaluation of this particular institute. The remaining critique form items have been grouped into four logical clusters, and the results in this section have been subdivided into four corresponding sections. In the report of the Portland institute, some item responses were analyzed after stratifying on (1) total amount of money spent by participants to attend the institute and (2) employing institution; those analyses did not prove to be particularly meaningful or useful, and so they were not performed here.

Tabulation of Pre (N = 13) and Post (N = 24\*) Responses to Participant Instrument #3, Inventory of Attitudes toward Educational Evaluation

	Strongly Disagree		Disagree		Undecided or Neutral		Agree		Strongly Agree		
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	
1. I see and feel deeply a need for increased evaluation information for decision-making in my field.	-							1 (8)	9 (38)	12 (92)	15 (62) *
2. Educational evaluation usually results in arbitrary judgments about the educative process.	+	2 (15)	8 (33)	5 (38)	13 (54)	2 (15)	2 (8)	4 (31)	1 (4)		-
3. There is currently too much concern with evaluation in education.	+	6 (46)	12 (50)	6 (46)	11 (46)	1 (8)	1 (4)				-
4. Educators do not receive sufficient training in evaluation.	-		1 (4)			1 (8)	1 (4)	4 (31)	9 (38)	8 (62)	13 (54) *
5. Educative processes are too complex to be evaluated objectively.	+	3 (23)	7 (29)	9 (69)	12 (50)	1 (8)	4 (17)		1 (4)		-
6. Evaluation is an attempt to reduce education to a mechanistic process.	+	9 (69)	12 (50)	4 (31)	12 (50)						-
7. Educational evaluation usually results in improvements in educational practice.	-	1 (8)		2 (15)	5 (21)	4 (31)	9 (38)	4 (31)	8 (33)	2 (15)	2 (8) *
8. Evaluation should aid an educator in revising his goals even while the program is in progress.	-							1 (4)	7 (29)	8 (62)	16 (67) *
9. Evaluation interferes with the running of schools more than it helps.	+	3 (23)	9 (38)	7 (54)	10 (42)	2 (15)	4 (17)	1 (8)	1 (4)		-

Table 4 continued on next page



Table 4 (cont.)

Tabulation of Pre (N = 13) and Post (N = 24\*) Responses to Participant Instrument #3, Inventory of Attitudes toward Educational Evaluation

	Strongly Disagree		Disagree		Undecided or Neutral		Agree		Strongly Agree		
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	
10. Intuition and general knowledge of practitioners are more valuable than formal evaluative procedures in making decisions in education.	3 (23)	6 (25)	8 (62)	15 (62)	1 (8)	3 (12)	1 (8)				-
11. Using educational evaluation in my work does not appeal to me.	10 (77)	17 (71)	3 (23)	7 (29)							-
12. Money spent on evaluation contributes more to the improvement of education than any other expenditure.	1 (8)	1 (4)	4 (31)	7 (29)	5 (38)	9 (38)	3 (23)	7 (29)			+

\* Two persons failed to complete this instrument, so total N = 24 rather than 26.

NOTE: Percent of total responses in parentheses; + and - signs indicate the positive and negative poles of the scale for each item.

Table 5

Analysis of Variance: Scores on Attitudes toward  
Educational Evaluation (Participant Instrument #3)

Comparison:  $O_1 - O_2$  (pre-institute,  $n = 13$ , vs. same 13 on post-institute)

SV	SS	df	MS	F	p
Subjects	369.46	12	30.79		
Treatment	.15	1	.15	.05	n.s.
Residual	36.85	12	3.07		

Comparison:  $O_1 - O_3$  (pre-institute,  $n = 13$ , vs. unpretested post-institute  
 $n = 11^*$ )

SV	SS	df	MS	F	p
Treatment	2.36	1	2.36	.17	n.s.
Error	308.14	22	14.01		
Total	310.50	23			

Comparison:  $O_2 - O_3$  (pretested post-institute,  $n = 13$ , vs. unpretested  
post-institute,  $n = 11^*$ )

SV	SS	df	MS	F	p
Treatment	1.35	1	1.35	.09	n.s.
Error	335.99	22	15.27		
Total	337.34	23			

\* Two persons from this group failed to complete the post-institute instrument, so total  $N = 24$  rather than 26.

Evaluation of Pre-Institute Planning. Participants were asked to record their impressions of pre-institute planning in areas related to the topic, staff, facilities, fee structure, location, and date. Participant responses to these questions are summarized in Table 6. As with the Portland group, participants responded very positively to the items relating to the importance of the institute topic and to the qualifications of the staff.

Participants generally felt that the tuition fee was a reasonable charge (\$90 for AERA members, \$100 for non-members). They were asked to record the total expense (including travel, tuition fee, and living expenses) incurred by attending the institute, as well as the amount of money they spent personally (i.e., non-reimbursable expense items) to attend the institute. Total costs ranged from \$0 to \$380, with a mean of about \$245 and a median of \$300. Personal expenses ranged from \$0 to \$325, with a mean of about \$97 and a median of \$10 (obviously, a few persons paid quite a bit more of their own money than most participants did to attend the institute, thus causing the mean to be so high in relation to the median).

2

In response to two questions which appeared on Instrument #1, it

---

2

10. If this session were not available now, but was offered instead as a session for a similar amount of time either immediately before or after the convention in New Orleans in February, would you choose to attend the session there? (Assume registration fees, etc., remained constant.)

11 Yes      15 No

11. As far as you now know, do you plan to attend the AERA Convention in New Orleans this year?

16 Yes      10 No

Table 6

Tabulation of Participant Responses to Critique Items  
Relating to Pre-institute Planning (N = 24\*)

Item		$\bar{X}$	s
1. How important do you feel the topic of this Institute is to educational research and/or evaluation?		1.29	.86
very important	1 2 3 4 5		
	(20) (3) (1)		
2. How important do you feel the topic of this Institute is to educational practice?		1.63	1.01
very important	1 2 3 4 5		
	(15) (5) (3) (1)		
4. Leaving aside the quality of instruction for the moment, do you think the <u>topic</u> treated in this Institute should be treated again in future Institutes?		1.17	.48
definitely	1 2 3 4 5		
	(21) (2) (1)		
19. In your opinion, the staff members were in general:		1.17	.82
very well-qualified	1 2 3 4 5		
	(23) (1)		
23. The meeting room facilities for the Institute were:		1.63	.97
excellent	1 2 3 4 5		
	(13) (5) (4) (1)		
25. Considering what you have learned by attending this Institute (or any other benefits you have received from attendance), the tuition fee was:		3.21	.66
considerably too low	1 2 3 4 5		
	(2) (16) (5) (1)		
	considerably too high		

\* Two persons failed to complete this instrument, so total N = 24 rather than 26.

NOTE: Frequencies are shown in parentheses.

can be seen that over half of the participants planned to attend the AERA annual meeting in New Orleans one month after the Tampa institute; but fewer than half of the participants would have been willing to attend the institute as a pre- or post-session to the annual meeting. This perhaps suggests (and answers to open-ended questions on this same instrument confirm) that it is relatively easy for a person to get away from his professional duties a few days at a time, but much more difficult for him to be gone from his job for a week at a time (as attendance at the annual meeting and a pre- or post-session would have required).

Most participants rated the meeting rooms as excellent or good. Sun and bugs at times proved distracting, but on the whole the facilities were more than adequate (and lovely to look at, as well!).

Evaluation of Conduct of the Institute. Participants were asked to respond to questions dealing with the conduct of the institute itself, including concerns for the success of its activities, its content validity, its objectives, and the instruction. Summaries of responses to those items appear in Table 7.

Generally speaking, responses to this set of items were more positive than from the Portland group. This was especially true in those items relating to the clarity of objectives (item 5), the planning and organization (item 6), the information regarding prerequisites and advance preparation (items 9 and 10), the quality of instruction (items 13 and 14), and the preparation of the staff (item 19).

Evaluation of Institute Activities. Item 30 was concerned with specific activities during the institute. Participants were asked to respond to that item in terms of how valuable the activities had been

Table 7

Tabulation of Participant Responses to Critique Items  
on Conduct of the Institute (N = 24\*)

Item							$\bar{x}$	s	
3.	How relevant was the content of the Institute to the topic that was advertised?						1.50	.78	
	highly relevant	1 (16)	2 (4)	3 (4)	4	5		not at all relevant	
5.	The staff's objectives for this Institute were:						2.21	.72	
	very clear to me	1 (3)	2 (14)	3 (6)	4 (1)	5		very unclear to me	
6.	The planning and organization of this Institute were:						2.04	.95	
	excellent	1 (7)	2 (11)	3 (5)	4	5 (1)		poor	
7.	Overall, was the Institute long enough to cover the topic adequately?						3.43	.73	
	considerably too long	1	2 (2)	3 (10)	4 (10)	5 (1)		considerably too short	
8.	As a rule, <u>daily</u> sessions were:						2.96	.36	
	considerably too long	1	2 (2)	3 (21)	4 (1)	5		considerably too short	
9.	Do you feel all necessary prerequisites were clearly stated in information you received prior to the Institute? (check ONE)								
	<u>17</u>	Yes, they were clearly stated							
	<u>3</u>	No, they were ambiguous							
	<u>2</u>	No prerequisites were listed							
10.	Did you receive advance reading materials from the Institute director(s) early enough to read them prior to the Institute? (check ONE)								
	<u>20</u>	Yes, materials came early enough							
	<u>2</u>	No, materials came too late							
	<u>1</u>	No materials were sent							

Table 7 (cont.)

Tabulation of Participant Responses to Critique Items  
on Conduct of the Institute (N = 24\*)

Item							$\bar{X}$	s
11.	Do you think you entered the Institute with the appropriate prerequisites or prior knowledge to make what you learned there of value to you?						2.00	.83
	I had more than enough preparation	1 (7)	2 (11)	3 (5)	4 (1)	5 I was seriously lacking in preparation		
12.	In terms of <u>your</u> background and preparation for the Institute, the content of this Institute was:						3.00	.83
	too elementary	1 (2)	2 (1)	3 (17)	4 (3)	5 (1)	too advanced	
13.	Overall, the quality of instruction in this Institute was:						1.58	.65
	excellent	1 (12)	2 (10)	3 (2)	4	5	poor	
14.	The instruction was generally:							
	too lecture-oriented	1 (6)	2 (15)	3 (3)	4	5	too discussion-oriented	2.88 .61
	very interesting	1 (16)	2 (8)	3	4	5	very uninteresting	1.33 .48
	very informative	1 (13)	2 (8)	3 (3)	4	5	very uninformative	1.58 .72
15.	Opportunities for asking questions were:						1.46	.72
	sufficient	1 (16)	2 (5)	3 (3)	4	5	insufficient	
16.	Opportunities for studying were:						2.91	1.41
	sufficient	1 (5)	2 (4)	3 (6)	4 (4)	5 (4)	insufficient	
17.	The amount of work the staff required of you was:						3.50	.72
	far too much	1 (1)	2 (12)	3 (9)	4 (2)	5	far too little	

Table 7 (cont.)

Tabulation of Participant Responses to Critique Items  
on Conduct of the Institute (N = 24\*)

Item							$\bar{X}$	s
18.	Opportunities for you to interact with the staff with respect to problems in your own work which relate to the topic were:						2.92	1.21
	sufficient	1 (4)	2 (4)	3 (8)	4 (6)	5 (2)		insufficient
19.	In your opinion, the staff members were in general:						1.42	.65
	very well-prepared	1 (16)	2 (6)	3 (2)	4	5		very unprepared
20.	Did the staff seek your reactions to their instructional procedures, scheduling, etc., <u>during</u> the Institute?						1.88	.95
	frequently	1 (10)	2 (9)	3 (3)	4 (2)	5		never
21.	Did it appear to you that your reactions led to improvements in the instructional procedures, schedules, etc.?						2.21	.93
	frequently	1 (6)	2 (9)	3 (7)	4 (2)	5		never
22.	The formal evaluation of this Institute by the "outside evaluator" (e.g., those instruments) was:						1.46	.78
	not at all disruptive	1 (17)	2 (3)	3 (4)	4	5		very disruptive

\* Two persons failed to complete this instrument, so total N = 24 rather than 26.

NOTE: Frequencies are shown in parentheses.



to them. A summary of their responses is presented in Table 8.

Activities rated as most valuable included Stufflebeam's presentation on problems faced by evaluators, Scriven's presentations on goal-free and pathway evaluation, and the general question and answer sessions with staff. The low rating achieved by "Individual reading: Use of reference table" may be attributed to the fact that no one specific time was allocated for this purpose, the Thursday evening session having been cancelled. (To be truthful, it was not so much cancelled as that it simply failed to materialize. The institute site was quite distant from the motel where most participants were staying, and there was little inclination for participants to return to the meeting rooms after dinner, especially when it involved a 20-minute drive.) However, one must remember that the reading session scheduled in Portland was rated as not particularly useful, so apparently a scheduled time for reading (at least at the beginning of the institute) is not the answer to the problem.

As in Portland, the Sanders-McClellan workbook examples were not rated as particularly valuable. However, in the opinion of the evaluator, this is the activity where the staff seemed least prepared and organized. It would be difficult for the evaluator to determine whether the low rating is intrinsic to the materials or to the seeming confusion at the beginning of the activity.

Reinhard's discussion of advocacy teams again was not rated particularly well, relatively speaking. It was suggested in the Averill-Worthen report that this might have resulted from the fact that hers was the only presentation during which participants consistently asked

Table 8

Tabulation of Participant Responses to Critique Items on the  
Evaluation of Institute Activities (N = 24\*\*)

30. How would you rate the value of each of the following aspects of this  
Institute?

(Please circle ONE for EACH report)

	no opportunity to judge	1	2	3	4	5	$\bar{X}$	s
a. Scriven: pathway evaluation (Thursday morning)	NA	(7)	(13)	(3)			1.83	.65
b. Stufflebeam: problems, CIPP model (Thursday morning)	NA	(13)	(7)	(4)			1.63	.77
c. Reinhard: advocate team technique (Thursday afternoon)	NA	(3)	(7)	(10)	(3)	(1)	2.67	1.01
d. Scriven: goal-free evaluation (Thursday afternoon)	NA	(12)	(10)		(2)		1.67	.87
e. Workbook examples (Thursday afternoon)	NA	(3)	(8)	(7)	(5)	(1)	2.71	1.08
f. Individual reading: use of reference table (Thursday evening)	NA	(1)	(1)	(5)	(1)	(6)	3.71	1.33
g. "Special topics" presentation (Friday morning)	NA	(4)	(10)	(5)		(1)	2.20	.95
h. Discussion of individual problems	NA	(3)	(9)	(5)	(1)		2.22	.81
i. General question and answer sessions with staff	NA	(10)	(12)	(2)			1.67	.64
j. Informal discussion with peers	NA	(8)	(11)	(5)			1.88	.74

\* Two persons failed to complete this instrument, so total N = 24 rather than 26.

NOTE: Frequencies are shown in parentheses.

questions (rather than waiting until the presentation was completed), thus possibly causing the presentation to lose its continuity. As mentioned earlier in this report, participants in Tampa interrupted all the presentations to ask questions; Reinhard's presentation was no exception. So apparently that was not a major cause of the low rating. The evaluator has another observation, however, which may suggest a cause for the low rating. Reinhard was the person who was responsible for all the administrative/secretarial details during the institute (e.g., making announcements about meals, handing out registration materials, monitoring the materials on the reference table); Stufflebeam and Scriven were much more the "professors" -- which, of course, they are. However, the difference in status between Reinhard and the other two staff members appeared quite obvious to the evaluator; and it may have to the participants too, causing them to rate her presentation less favorably simply because she is new in the field. One would expect Reinhard's ratings to improve as she becomes more sure of herself. Although it may be inappropriate to compare ratings of the Portland group with the Tampa group on an isolated item, it is true that the mean rating for the advocacy team presentation was 3.33 in Portland and 2.67 in Tampa.

Responses to open-ended questions on the instrument maintained the positive attitude seen in Table 8. The only recurrent (3-5 times) negative comment was that participants would have benefitted from more practical applications of the concepts discussed (perhaps through simulations).

General Evaluation of the Institute. Participants' overall

reactions to the institute are presented in Table 9. The majority of the participants believed that (1) what they had learned from the institute would be useful to them in their work, (2) they would attend the institute if they had to choose again, and (3) they would recommend the institute to a colleague.

Table 9

Tabulation of Participant Responses to Items on the  
General Evaluation of the Institute (N = 24\*)

Item	$\bar{X}$	<u>s</u>
24. Do you anticipate that what you have learned from the institute will be useful to you in your own work?	1.33	.56
definitely    1    2    3    4    5    definitely not (17) (6) (1)		
28. If you were able to choose over again, would you attend this institute?		
<u>(22)</u> Yes <u>(0)</u> No <u>(2)</u> Uncertain		
29. If this institute were held again, would you recommend to a colleague that he attend?		
<u>(21)</u> Yes <u>(0)</u> No <u>(3)</u> Uncertain		

\* Two persons failed to complete this instrument, so total N = 24 rather than 26.

NOTE: Frequencies are shown in parentheses.

## SUMMARY AND RECOMMENDATIONS

In summary, it may be said that the second "Alternative Conceptions of Evaluation" institute was quite successful -- probably more so than the first Institute in Portland, which is to be expected. The demand for the institute seems great (as the number of applicants would imply) and the reactions of the participants seem very positive (as the evaluation results reported here would imply). It appears, then, that this institute series should be continued.

Several recommendations were made by Averill and Worthen at the conclusion of their report on the Portland institute. Some of those recommendations were heeded; some no longer seem warranted on the basis of the Tampa data. A few, however, are still considered by this evaluator to be good recommendations for future institutes. They are presented below.

1. "Information about participants' prior training and experience in evaluation should be collected and reviewed by the Institute directors to assure an appropriate match between participants' backgrounds and the content and activities of the Institute (Averill & Worthen, p. 38)." This point was discussed earlier in this report, see p. 2.

2. "Internal evaluation should be emphasized more and external evaluation of programs emphasized less in subsequent programs (unless different types of participants are selected) (Averill & Worthen, p. 40)." On several of the demographic characteristics, this group of participants did seem somewhat different from the participants in Portland. The same recommendation holds, however, based on responses to open-

ended questions and informal comments to the evaluator. It would seem that participants' requests for more practical applications of the concepts they are learning would alleviate this problem somewhat. Perhaps the Sanders-McClellan materials could be emphasized more, since they do seem to be about day-to-day problems with which most participants might be expected to be familiar; or if the institute staff does not feel that these materials are adequate, perhaps other sources could be searched to find practical situations in evaluation and the problems they entail that might be discussed more substantially during the institute.

Appendix A  
Participants at Tampa Institute

EVALUATION OF AERA TRAVELING INSTITUTE  
"Alternative Conceptions of Evaluation"

Tucson, Arizona

March 28-29, 1973

Marilyn Averill

Laboratory of Educational Research  
University of Colorado



/

This report is an evaluation of the third "Alternative Conceptions of Evaluation" Traveling Institute presented by Diane Reinhard, Daniel Stufflebeam, and Michael Scriven in Tucson, Arizona, on March 28 and 29, 1973. Descriptions of the evaluation design and of general Institute organization are available in the first evaluation report of this series, and will not be repeated here.

### Institute Participants

Nineteen participants attended the Institute in Tucson; their characteristics are described in Table 1. They vary more with respect to employing institution and professional role than did those attending the first Institute in Portland, although the majority (67%) are still employed by institutions of higher learning or public school systems. All but one participant hold graduate degrees, and 14 hold a doctorate. AERA divisional memberships vary considerably, with the largest numbers of participants belonging to School Evaluation and Program Development (10) and Measurement and Research Methodology (7).

Participant experience with the topic of the Institute varied equally over limited, considerable, and great amounts of experience. Reasons for attending the session also varied considerably.

As in Portland, most participants travelled long distances to attend the Institute; over half travelled more than 1,000 miles. This supports the idea that interest and professional need seem to attract more participants than does regional convenience; however, it may also suggest that Institute sites have not been chosen with regard to regional centers of professional interest. It is possible that sites such as Chicago or Los Angeles would attract equal numbers and reduce participant travel distances.

Table 1  
Description of Participants

<u>Employing Institution</u>			
College or University	Public School System	Regional Laboratory	State Department of Education
8	5	1	2
Student	Other		
1	1		
<u>Primary Professional Role</u>			
Teacher	Administrator	Researcher	Evaluator
4	1	3	6
Developer	Other		
2	3		
<u>Academic Degrees</u>			
Bachelor's	Master's	Doctorate	
1	4	14	
<u>Membership in Divisions of AERA</u>			
(A) Administration	(B) Curriculum & Objectives	(C) Learning & Instruction	(D) Measurement & Research Methodology
1	3	4	7
(E) Counseling & Human Development	(G) Social Context of Education	School Evaluation and Program Development	Not presently a member of AERA
1	1	10	3

Table 1 (continued)  
Description of Participants

<u>Reasons for Attending the Institute</u>				
Desire to gain new skills or knowledge related to the topic		Desire to improve existing skills or knowledge related to the topic		Desire to discuss problems related to the topic with experts
8		6		5
<u>Prior Experience</u>				
No Experience	Limited Experience	Considerable Experience	Great Amount of Experience	
0	6	7	6	
<u>Distance of Home from Institute Site</u>				
less than 50 miles	50-100 miles	101-500 miles	500-1,000 miles	more than 1,000 miles
4	0	4	4	12

#### Conduct of the Institute

Institute registration began at 8:30 Wednesday morning; preliminary evaluation instruments were also administered at this time, and supplemental materials distributed. Most advance materials had been mailed to participants prior to the Institute. A resource table was available throughout the two days.

The tentative agenda had to be revised considerably, due to Scriven's day late arrival. However, presentations began as scheduled at 9:30; Stufflebeam began with the CIPP Model and problems faced by evaluators, followed by Diane Reinhard on Advocate Team Techniques. Participants

were asked for suggestions for afternoon activities in view of Scriven's absence; it was decided that Reinhard would continue with discussions on advocate teams. The group broke for lunch from 12:00 to 1:40.

The afternoon was spent discussing various topics, including advocate teams, experimental design for evaluation, and criterion-referenced testing. About half of the audience participated actively in these discussions. At the conclusion of the session it was decided to reconvene at 8:30 instead of 9:00 the next morning, to insure ample time for Scriven's presentations.

Thursday morning Scriven presented the value of evaluation, objectivity in evaluation, the Pathway Comparison Problem, and Goal-Free Evaluation. After lunch discussion took place on various topics, and Scriven suggested a checklist for product evaluation. Stufflebeam left at 2:00, due to difficult plane connections; Scriven and Reinhard left at 3:00. Final evaluation instruments were administered at 3:00, after which the Institute adjourned. A number of participants also left early.

### Evaluation Results

#### Cognitive

Cognitive outcomes were assessed with a Self Report of Knowledge (Participant Instrument #2). Tabulations of pre- and post-responses to this instrument are presented in Table 2. An analysis of variance performed between the two posttests groups (pretested and unpretested) yielded no significant difference, indicating no pretest sensitization effect. There was also no significant difference between the pretest and the unpretested posttest group. However, an analysis of variance with repeated measures between the pretest group and the same group on the posttest was significant at the .05 level. It should be stressed that this instrument is not an achievement test; this result should be interpreted only as an increase in participant perception of understand.

Table 2

Tabulation of Pre- (n = 9) and Post- (n = 17) Responses to Participant Instrument #2, the Self-report of Knowledge Inventory

Participant Perceived Knowledge Was:

Topic	Excellent		Good		Some		Little		None		Omit	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Problems evaluators have to deal with	1	4	6	7	2	5		1				
Alternative frameworks for dealing with evaluation problems		3		4	7	7	2	3				
Criteria for meta-evaluation				2	1	9	4	1	4	5		
Definition of evaluation	3	6	3	7	3	4						
Cost considerations in evaluation			1	5	4	8	4	4				
Procedures for site visit evaluation		1	1	4	5	7	1	4	2	1		
The role of values in education		2	4	8	3	4	2	3				
Emergent techniques for working on evaluation problems		2	1	2	3	7	3	5	2	1		
Evaluation methodology		2	1	7	4	5	2	3	2			
How to implement a strategy for solving evaluation problems				2	5	8	1	1	1			
Roles of the evaluator	2	2	3	11	4	3		1				
Where to find useful literature on evaluation	1	5	7	9	1	3						

Table 3

Analyses of Variance of Scores on Participant Instrument #2,  
the Self-report of Understanding

Pretest ( $O_1$ , $n = 9$ ) vs. same group on posttest ( $O_2$ , $n = 8$ ) (Repeated Measure)					
SV	SS	df	MS	F	p
Mean	16835.06	1	16835.06		
Treatment					
S (Subjects)	259.44	7	37.06		
M (Measures)	175.56	1	175.56	5.72	< .05
SM	214.94	7	30.71		
Pretest ( $O_1$ , $n = 9$ ) vs. unpretested group on posttest ( $O_3$ , $n = 9$ )					
SV	SS	df	MS	F	p
Treatment	53.39	1	53.39	1.10	n.s.
Error	779.56	16	48.72		
Total	832.95	17			
Pretested posttest ( $O_2$ , $n = 8$ ) vs. unpretested posttest ( $O_3$ , $n = 9$ )					
SV	SS	df	MS	F	p
Treatment	43.60	1	43.60	.7649	n.s.
Error	854.88	15	56.99		
Total	898.48	16			

### Affective

Participant Instrument #3 was employed to assess attitudes toward evaluation in education; tabulations of responses to this instrument are presented in Table 4. Analyses of variance showed no significant difference between the pretest group and the unpretested posttest group, or between the two posttest groups.

An analysis of variance with repeated measures between the pretest group and the same group on the posttest was significant at the .01 level. Participants exhibited positive attitudes toward educational evaluation both before and after the Institute, and the pretested groups registered positive increases in attitude over the two days of the Institute.

### Critique Form

Participant responses to the critique form were generally less positive than those for the Portland and Tampa Institutes. Tabulations of responses to items from this instrument, with means and standard deviations where appropriate, are presented in Tables 6 to 8.

### Pre-Institute Planning

All but one of the participants indicated that they felt the topic of the Institute is important to educational research and practice, and that the topic should be treated again in future Institutes. The staff was judged to be very well qualified.

Total expenses incurred by participants ranged from \$90 to \$600 with a mean of \$317 and a median of \$338. Personal expenses (i.e., non-reimbursable expense items) ranged from \$0 to \$338, with a mean of \$42 and a median of \$0. Only two individuals were personally responsible for expenses over \$100. However, a majority of the participants (11) felt that the tuition fee was too high.

Table 4

Tabulation of Pre- (n = 9) and Post- (n = 17) Responses to Participant Instrument #3, Inventory of Attitudes toward Educational Evaluation

	Strongly Disagree		Disagree		Undecided or Neutral		Agree		Strongly Agree		
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	
1. I see and feel deeply a need for increased evaluation information for decision-making in my field.	1 (11)	1 (6)			1 (11)	3 (18)	1 (11)	1 (6)	6 (67)	12 (71)	+
2. Educational evaluation usually results in arbitrary judgments about the educative process.	1 (11)		6 (67)	9 (53)	1 (11)	4 (24)	1 (11)	2 (12)		2 (12)	-
3. There is currently too much concern with evaluation in education.	3 (33)	11 (65)	4 (44)	5 (29)	1 (11)		1 (11)	1 (6)			-
4. Educators do not receive sufficient training in evaluation.					1 (11)		3 (33)	10 (59)	5 (56)	7 (41)	+
5. Educative processes are too complex to be evaluated objectively.	2 (22)	5 (29)	5 (56)	8 (47)	1 (11)	3 (18)	1 (11)	1 (6)			-
6. Evaluation is an attempt to reduce education to a mechanistic process.	6 (67)	6 (35)	2 (22)	9 (53)	1 (11)	1 (6)		1 (6)			-
7. Educational evaluation usually results in improvements in educational practice.		1 (6)	2 (22)	2 (12)	4 (44)	7 (41)	2 (22)	5 (29)	1 (11)	2 (12)	+
8. Evaluation should aid an educator in revising his goals even while the program is in progress.		1 (6)				1 (6)	5 (56)	6 (35)	4 (44)	9 (53)	+
9. Evaluation interferes with the running of schools more than it helps.	2 (22)	6 (35)	4 (44)	8 (47)	3 (33)	3 (18)					-



Table 4

Tabulation of Pre- (n = 9) and Post- (n = 17) Responses to Participant Instrument #3,  
Inventory of Attitudes toward Educational Evaluation

	Strongly Disagree		Disagree		Undecided or Neutral		Agree		Strongly Agree	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
10. Intuition and general knowledge of practitioners are more valuable than formal evaluative procedures in making decisions in education.	9 (100)	4 (24)	10 (59)		1 (6)		2 (12)			
11. Using educational evaluation in my work does not appeal to me.	8 (89)	12 (71)	4 (24)				1 (11)	1 (6)		
12. Money spent on evaluation contributes more to the improvement of education than any other expenditure.		1 (6)	2 (22)	2 (12)	4 (44)	6 (35)	2 (22)	6 (35)	1 (11)	2 (12)

Note: Percent of total responses, rounded to the nearest percent, are in parentheses; + and - signs indicate the positive and negative poles of the scale for each item.

Table 5

Analyses of Variance of Scores on Participant Instrument #3,  
Affective Measure

Pretest ( $O_1$ , $n = 9$ ) vs. same group on posttest ( $O_2$ , $n = 8$ ) (Repeated Measure)					
SV	SS	df	MS	F	p
Mean	8464.	1	846.4		
Treatment					
S (Subjects)	673.	7	96.14		
M (Measures)	12.25	1	12.25	5.12	<.10
SM	16.75	7	2.39		
Pretest ( $O_1$ , $n = 9$ ) vs. unpretested group on posttest ( $O_3$ , $n = 9$ )					
SV	SS	df	MS	F	p
Treatment	9.39	1	9.39	.3023	n.s.
Error	496.89	16	31.06		
Total	506.28	17			
Pretested Posttest ( $O_2$ , $n = 8$ ) vs. unpretested posttest ( $O_3$ , $n = 9$ )					
SV	SS	df	MS	F	p
Treatment	37.77	1	37.77	1.02	n.s.
Error	553.76	15	36.92		
Total	591.53	16			

Table 6

Tabulation of Participant Responses to Critique Items  
Relating to Pre-Institute Planning

<u>Item</u>						<u><math>\bar{x}</math></u>	<u>s</u>
1. How important do you feel the topic of this Institute is to educational research and/or evaluation?							
very important	1	2	3	4	5	very unimportant	1.83 1.1
	(9)	(5)	(3)		(1)		
2. How important do you feel the topic of this Institute is to educational practice?							
very important	1	2	3	4	5	very unimportant	1.83 .86
	(7)	(8)	(2)	(1)			
4. Leaving aside the quality of instruction for the moment, do you think the <u>topic</u> treated in this Institute should be treated <u>again</u> in future Institutes?							
definitely	1	2	3	4	5	definitely not	1.78 1.00
	(9)	(6)	(1)	(2)			
19. In your opinion, the staff members were in general:							
very well qualified	1	2	3	4	5	very unqualified	1.22 .55
	(15)	(2)	(1)				
23. The meeting room facilities for the Institute were:							
excellent	1	2	3	4	5	poor	3.22 1.26
	(2)	(3)	(5)	(5)	(3)		
25. Considering what you have learned by attending this Institute (or any other benefits you have received from attendance), the tuition fee was:							
considerably too low	1	2	3	4	5	considerably too high	3.83 .79
			(7)	(7)	(4)		

Meeting room facilities were rated from excellent to poor, with the mean falling slightly below adequate. Several participants commented that the room was cramped the second day, after a partition was closed to cut down on noise.

### Conduct of the Institute

Participant responses to items concerned with the conduct of the Institute are summarized in Table 7. Participants were asked to rate the relevance of the Institute content to the topic advertised; responses varied from highly relevant to "not at all relevant." This reflects the highly diverse reactions indicated throughout the critique form; some participants responded very positively to the Institute, while others were very negative.

The staff's objectives were judged to be somewhat less than clear. Planning and organization were rated as fair. Staff preparation and the quality of instruction were judged to be slightly above average, although responses again ranged from excellent to poor. Individual activities were generally rated as valuable. Eight participants felt the instruction was too lecture-oriented, one felt it was too discussion-oriented. Instruction was perceived to be interesting and informative.

Most participants indicated that prerequisites were either ambiguous or not stated at all. Participant backgrounds seem to vary considerably, as some (5) felt they had more than enough preparation for the Institute, while others (2) felt they were seriously lacking in preparation. Half indicated that they felt too little work was required of them during the Institute. Advance reading materials were received in time by less than half of the group.

The length of daily sessions was judged to be about right, but ten participants felt the two day Institute was too short to cover the topic adequately.

Table 7

Tabulation of Participant Responses to Critique Items  
on Conduct of the Institute

<u>Item</u>						<u><math>\bar{x}</math></u>	<u>s</u>
3. How relevant was the content of the Institute to the topic that was advertised?							
highly relevant	1	2	3	4	5	not at all relevant	2.67 1.19
	(3)	(6)	(4)	(4)	(1)		
5. The staff's objectives for this Institute were:							
very clear to me	1	2	3	4	5	very unclear to me	3.39 1.20
		(6)	(3)	(5)	(4)		
6. The planning and organization of this Institute was:							
excellent	1	2	3	4	5	poor	4.17 .92
			(6)	(3)	(9)		
7. Overall, was the Institute long enough to cover the topic adequately?							
considerably too long	1	2	3	4	5	considerably too short	3.50 .92
			(3)	(5)	(8)	(2)	
8. As a rule, <u>daily</u> sessions were:							
considerably too long	1	2	3	4	5	considerably too short	3.06 .80
			(3)	(13)		(2)	
9. Do you feel all necessary prerequisites were clearly stated in information you received prior to the Institute? (check ONE)							
<u>6</u> Yes, they were clearly stated							
<u>6</u> No, they were ambiguous							
<u>6</u> No prerequisites were listed							
10. Did you receive advance reading materials from the Institute director(s) early enough to read them prior to the Institute? (check ONE)							
<u>7</u> Yes, materials came early enough							
<u>6</u> No, materials came too late							
<u>5</u> No materials were sent							

Table 7

Tabulation of Participant Responses to Critique Items  
on Conduct of the Institute

<u>Item</u>						<u><math>\bar{x}</math></u>	<u>s</u>
11. Do you think you entered the Institute with the appropriate prerequisites or prior knowledge to make what you learned there of value to you?							
I had more than enough preparation	1 (5)	2 (4)	3 (5)	4 (2)	5 (2)	I was seriously lacking in preparation	2.56 1.34
12. In terms of <u>your</u> background and preparation for the Institute, the content of this Institute was:							
too elementary	1 (1)	2 (3)	3 (10)	4 (4)	5	too advanced	2.94 .80
13. Overall, the quality of instruction in this Institute was:							
excellent	1 (3)	2 (7)	3 (2)	4 (5)	5 (1)	poor	2.67 1.24
14. The instruction was generally:							
too lecture-oriented	1 (3)	2 (5)	3 (9)	4	5 (1)	too discussion-oriented	2.50 .99
very interesting	1 (5)	2 (5)	3 (6)	4 (2)	5	very uninteresting	2.28 1.02
very informative	1 (6)	2 (3)	3 (6)	4 (3)	5	very uninformative	2.33 1.14
15. Opportunities for asking questions were:							
sufficient	1 (7)	2 (5)	3 (2)	4 (3)	5 (1)	insufficient	2.22 1.31
16. Opportunities for studying were:							
sufficient	1 (3)	2 (5)	3 (6)	4 (3)	5 (1)	insufficient	2.67 1.14
17. The amount of work the staff required of you was:							
far too much	1	2	3 (9)	4 (8)	5 (1)	far too little	3.56 .62

Table 7

Tabulation of Participant Responses to Critique Items  
on Conduct of the Institute

<u>Item</u>							<u><math>\bar{x}</math></u>	<u>s</u>
18. Opportunities for you to interact with the staff with respect to problems in your own work which relate to the topic were:								
sufficient	1	2	3	4	5	insufficient	3.12	1.36
	(2)	(4)	(5)	(2)	(4)			
19. In your opinion, the staff members were in general:								
very well-prepared	1	2	3	4	5	very unprepared	2.44	1.50
	(6)	(5)	(1)	(2)	(3)			
20. Did the staff seek your reactions to their instructional procedures, scheduling, etc., <u>during</u> the Institute?								
frequently	1	2	3	4	5	never	3.00	1.46
	(3)	(5)	(3)	(3)	(4)			
21. Did it appear to you that your reactions led to improvements in the instructional procedures, scheduling, etc.?								
frequently	1	2	3	4	5	never	3.35	1.17
	(1)	(2)	(8)	(2)	(4)			
22. The formal evaluation of this Institute by the "outside evaluation" (e.g., those instruments) was:								
not at all disruptive	1	2	3	4	5	very disruptive	1.71	1.05
	(11)	(1)	(4)	(1)				

Table 8

Tabulation of Participant Responses to Critique Items  
on the Evaluation of Institute Activities

30. How would you rate the value of each of the following aspects of this Institute?  
(Please circle ONE for EACH row)

	<u>no opportunity to judge</u>	<u>very valuable</u>					<u>worthless</u>					$\bar{x}$	$s$
		1	2	3	4	5	1	2	3	4	5		
a. Scriven: pathway evaluation	NA	1 (6)	2 (6)	3 (5)	4 (1)	5						2.06	.94
b. Stufflebeam: problems, CIPP model	NA	1 (5)	2 (6)	3 (4)	4 (1)	5						2.06	.93
c. Reinhard: advocate team technique	NA	1 (3)	2 (4)	3 (5)	4 (2)	5 (2)						2.75	1.29
d. Scriven: goal-free evaluation	NA	1 (10)	2 (4)	3 (1)	4 (2)	5						1.71	1.05
e. Workbook examples (10/20/20)	NA	1	2 (2)	3 (3)	4	5						2.60	.55
f. Individual reading: use of reference table	NA	1	2 (3)	3 (4)	4 (2)	5 (1)						3.10	.99
g. "Special topics" presentation	NA	1	2 (3)	3 (4)	4 (1)	5 (1)						3.00	1.00
h. Discussion of individual problems	NA	1	2 (3)	3 (3)	4 (5)	5 (3)						3.57	1.09
i. General question and answer sessions with staff	NA	1 (2)	2 (5)	3 (5)	4 (1)	5 (2)						2.73	1.22
j. Informal discussion with peers	NA	1 (3)	2 (6)	3 (1)	4 (4)	5 (1)						2.60	1.30



Seven participants indicated that they were seldom asked for their reactions or suggestions during the Institute. However, Stufflebeam asked for participant feedback several times, and very little was offered. Negative responses to this item may reflect generally negative attitudes toward the Institute, rather than actual perceptions of the staff's flexibility.

### Open-ended Questions

Responses to the open-ended questions also varied from very positive to very negative. Suggestions for improving the Institute are summarized in Table 9. The most recurrent complaint (6) concerned Scriven's late arrival. Aspects of the Institute judged to be of considerable value are listed in Table 10.

### General Evaluation of the Institute

Participant responses relating to a general evaluation of the Institute are presented in Table 8. A majority of the participants (13) believed that what they had learned would be useful to them in their own work; three felt that their learning experiences would not be useful to them. Slightly over half of the respondents indicated that they would choose again to attend the Institute (10) and would recommend attendance to a colleague (11).

### Summary and Recommendations

Although participant reactions to this Institute are less positive than for the Portland and Tampa Institutes, mean responses are only occasionally negative. Responses to most items varied across the scale. It is possible that the more negative respondents were reacting primarily to Scriven's absence the first day and allowed this to affect their responses to all items, while

the more positive respondents evaluated the Institute itself. It is the opinion of this evaluator that the Tucson Institute was better planned and conducted than the one in Portland, and that the series should definitely continue. However, there are a few suggestions for the improvement of the final presentation in July.

1. All staff members should arrive on time and remain until the end of the two days. Although it is realized that Scriven's late arrival was not deliberate and Stufflebeam's early departure was unavoidable, several participants expressed resentment of these circumstances, both at the Institute and through instrument responses. This should be avoided in the future if at all possible.

2. Clearly stated objectives and a detailed agenda should be mailed to participants in advance of the Institute, to give them a better idea of what emphases to expect.

3. The billing of the Institute should be changed, or applicants should be notified that "alternative conceptions" refers primarily to Scriven, Stufflebeam, and Reinhard's conceptions of evaluation, which complement each other more than they differ.

4. Pre-Institute materials should be mailed first class at an earlier date, to insure their receipt by more participants.

5. More work should be expected of participants during the Institute, and a greater emphasis should be put on the value and availability of the resource materials.

6. More emphasis should be placed on discussion rather than lecture.

Table 9

Participant Suggestions for Improving the Institute  
from Responses to Open-Ended Questions

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Staff should arrive on time and stay until the end of the Institute.  
 Division into small groups.  
 Less philosophy and more application.  
 Hold Institute on Thursday and Friday.  
 Revise advertised content and include agenda.  
 Mail advance materials earlier.  
 More emphasis on alternative concepts of evaluation.  
 Discussion of the administrative viewpoint.  
 Less lecture, more discussion.  
 Better preparation.  
 Smaller frame of reference.

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Table 10

Aspects of the Institute Believed to be of Considerable Value

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Good bibliography.  
 Materials sent prior to the Institute.  
 Exposure to new vocabulary, ideas, and techniques.  
 Contact with colleagues.  
 Personal interaction with leaders.  
 Discussion of philosophical differences.

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EVALUATION OF AERA TRAVELING INSTITUTE NO. 2  
"Alternative Conceptions of Evaluation"

Marilyn Averill

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Laboratory of Educational Research  
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This report contains an evaluation of the second AERA Traveling Institute, the "Alternative Conceptions of Evaluation" Institute conducted by Michael Scriven and Daniel Stufflebeam in Portland, Oregon, on October 19 and 20, 1972. There are two primary audiences for the report: (1) the AERA Research Training Committee, which will use it as input for decisions about continuation of institutes in this series, and (2) the Institute staff (Scriven, Stufflebeam, and Reinhard), who should find it useful in deciding how to improve the Institute in its second run (assuming the Research Training Committee agrees with the recommendation of the evaluators that the Institute should be repeated).

Other audiences which might have an interest in the report include the Office of Education, funding agency for the project; participants of the Institute, several of whom expressed interest in the report in Portland; and prospective participants who are considering attending subsequent institutes in this series. To the extent that it is feasible, requested report copies should be made available to these additional audiences.

A summative evaluation of the concept of Traveling Institutes is planned to help AERA determine whether they should continue to sponsor such institutes beyond the current experimental series. However, this evaluation will be deferred until all twelve institutes (4 series of 3 institutes each) are completed; therefore, no conclusive inferences can be made about the concept of AERA Traveling Institutes on the basis of the evaluation presented herein.

The remainder of this report is divided into two major sections, description of the Institute and evaluation of the Institute. The descriptive section is sub-divided into four sections which contain

descriptions of the following: (1) policies under which the evaluation was conducted, (2) planning of the Institute, (3) Institute participants, and (4) the conduct of the Institute.

The evaluation of the Institute is also divided into four sections which contain discussions of the following: (1) evaluation plans and procedures, (2) instrument administration and analysis, (3) results, and (4) summary and recommendations.

## DESCRIPTION OF THE INSTITUTE

The Institute is described briefly in the following four sections.

### Policies Under Which the Evaluation Was Conducted

The evaluators were given complete access to all relevant information in the possession of the AERA Central Office staff and the Institute staff. This included participant application forms and records of planning for the Traveling Institutes. The Institute staff cooperated by supplying a preliminary agenda, with the understanding that it was subject to modification during the course of the Institute. A copy of this agenda appears in Appendix A herein. The directors also agreed to provide ample time for the administration of all evaluation instruments during the Institute.

The evaluation budget for this Institute was sufficient only to cover expenses associated with the evaluation (e.g., travel costs, living expenses, reproduction costs for instruments and reports). The evaluators' time was volunteered, resulting in some limitations in terms of (1) the amount of time which could be devoted to the task and (2) scheduling of that time. As a result, the analyses included and the written interpretations of analyses are less complete than would have been the case had it been possible to spend more time on these tasks.<sup>1</sup> Another result is that this report is somewhat late for maximum utility for decisions for which it is relevant. These limitations notwithstanding, it is hoped that this report proves useful to the audiences described earlier.

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<sup>1</sup>For example, stratifications on several additional variables would have been useful, as would also pilot testing and item analyses of instruments.

### Institute Planning

Planning and objectives for this Institute were made available to the evaluators through telephone conversations and personal correspondence with (a) Scriven and Stufflebeam, the Institute directors; (b) James Mitchell, Model A director; and (c) William Russell, AERA central office project co-director.

Stufflebeam stated four basic goals for the Institute:

- (1) to increase participant awareness and understanding of problems with which evaluators deal;
- (2) to provide an awareness of and greater knowledge about alternative frameworks for dealing with evaluation problems;
- (3) to provide information on emergent techniques for working on evaluation problems (e.g., the advocacy team approach);  
and
- (4) to increase participant abilities to solve evaluation problems.

Scriven's objectives, as described in a telephone conversation with the evaluators, were more general, but did not differ significantly from Stufflebeam's, and Reinhard was not consulted concerning objectives prior to the Institute.

### Institute Participants

Participants were chosen on the basis of their expressed professional need for the content of the Institute, as indicated in a personal statement submitted with each application form. (A copy of the application form is included in Appendix B.) Out of 37 applications submitted, 26 participants were selected, 23 of which attended the Institute in Portland.



In addition, one person attended as a replacement for a person who had been selected but who was unable to attend. A list of participants is presented in Appendix C.

Table 1 contains a description of Institute participants on several characteristics. Institutions of higher education and public school systems collectively employ approximately 80 percent of the participants. Almost half of the participants are employed as evaluators, with teachers and professors representing the next largest group. Nearly all participants hold graduate degrees, with a preponderance holding the doctorate. All but 2 participants are members of AERA; they show considerable diversity in their divisional memberships.

All participants came to the Institute with at least limited experience in the field, and over half indicated that they had a considerable or great amount of experience. No predominate theme could be discerned in participants' reasons for attending the Institute.

Table 1  
Description of Participants

<u>Employing Institution</u>					
College or University	Public School System	Regional Laboratory	Federal or City Govt	State Dept. of Education	Other
12	7	1	1	1	2
<u>Primary Professional Role</u>					
Teacher	Administrator	Researcher	Evaluator	Developer	
7	4	1	11	1	

Table 1 (continued)

## Description of Participants

<u>Academic Degrees</u>				
Bachelor's	Master's	Doctorate		
1	4	19		
<u>Membership in Divisions of AERA</u>				
(A) Administration	(B) Curriculum & Objectives	(C) Learning & Instruction	(D) Measurement & Research Methodology	
1	6	9	7	
( ) Social Context of Education	( ) School Evaluation & Program Development	( ) Not presently a member of AERA		
1	7	2		
<u>Reasons for Attending the Institute</u>				
Desire to gain new skills or knowledge related to the topic.	Desire to improve existing skills or knowledge related to the topic.	Desire to discuss problems related to the topic with experts		
19	18	20		
<u>Prior Experience</u>				
No Experience	Limited Experience	Considerable Experience	Great Amount of Experience	
0	8	11	5	
<u>Distance of home from Institute site</u>				
less than 50 miles	50-100 miles	101-500 miles	501-1,000 miles	more than 1,000 miles
4	0	4	4	12

Perhaps the most surprising fact about this group of participants is that two-thirds of them travelled over 500 miles (one-way) to attend the Institute; half traveled over 1,000 miles (one-way). This suggests that the immediacy of professional needs or interest attracted more participants than did the regional convenience.

### Conduct of the Institute

"Pre-test" evaluation instruments were administered to participants as they arrived at registration, prior to the opening of the Institute. Following this, all participants were encouraged to use the remainder of the morning for individual study. No materials had been distributed in advance of the Institute, but individual material sets were provided upon arrival for each attendee. In addition, a resource area was set up offering an assortment of materials related to evaluation. A bibliography and matrix describing these resource materials appears in Appendix D. Most of the morning of October 19th (9:00 - 11:00) had been planned initially as a reading session. This was extended to 1:00 p.m. because of Scriven's delayed arrival, which was due to bad weather and attendant plane delays.

Presentations began at 1:00 p.m. with an introduction and Scriven's address on the "Pathway" model of evaluation. This was followed by Stufflebeam speaking on problems faced by evaluators, and Reinhard with an overview of the advocacy team approach to evaluation. Following a short break at 3:30, the group reconvened to hear Scriven discuss goal-free evaluation, after which Stufflebeam spoke on on-site evaluation procedures. Instructions were then given for the evening's activities; participants were

divided into groups and asked to devise evaluative strategies and critiques in response to problems proposed in the Sanders and McClellan (1972) evaluation workbook materials.<sup>2</sup> Following dinner, groups were asked to report their strategies, and these were critiqued by other participants. At the conclusion of this exercise, input was requested from participants concerning plans for activities on the second day.

The tentative agenda was followed less rigorously on the second day. The morning was spent discussing evaluation problems posed by participants, followed by Stufflebeam speaking on school system evaluation. Following lunch, Scriven gave a presentation on behavioral objectives and needs assessment. Some time was spent on general questions and discussion. At 3:00 p.m., final evaluation instruments were administered, after which the Institute adjourned.

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<sup>2</sup>Sanders, James R. and McClellan, Mary C. "A Workbook for the study of Applications of Selected Evaluation Frameworks." Indiana University, 1972.

## EVALUATION OF THE INSTITUTE

The methods used to evaluate the Institute and the results of that evaluation are contained in the remainder of this report.

### Evaluation Plans and Procedures

The plans and objectives for the experimental series of AERA Traveling Institutes were studied as a first step in planning the evaluation of this Institute. This led to a second step, listing evaluative questions for which answers must be provided in order to judge the worth of each Institute. Third, sources of information necessary to answer each question were identified and categorized. These categories and relevant types of information are summarized briefly below: (1) from participants -- personalogical data, information on cognitive and affective changes (both short and long term) resulting from the Institute, and personal evaluations of various aspects of the Institute; (2) from staff members -- reactions to the Institute; and (3) from non-attendees (including non-applicants and those who were accepted but did not attend) -- information concerning their interest or non-interest in attending the Institute. An outline of information needs is included in Appendix E.

With these general information needs in mind, instrument formats were planned. Instruments to be administered on site were then drafted, reviewed, and revised. Copies of all instruments are included in Appendix F.

It was difficult to assess cognitive outcomes of this Institute, due to uncertainty as to precisely what topics would be covered during

the Institute. Consequently, no cognitive achievement test was administered; cognitive gains were estimated by a self-report of understanding (Participant Instrument #2).<sup>3</sup>

Participant Instrument #3 was devised to assess affective outcomes of the Institute. It consists of 12 statements relating to the use of evaluation in education; participants were asked to respond to these on a 5-point Likert type scale.

General evaluative data from both staff and participants were gathered from two critique forms (Staff Instrument #1 and Participant Instrument #4) consisting primarily of semantic differential and open-ended questions.<sup>4</sup>

Demographic information was collected from a short instrument (Participant Instrument #1) concerned primarily with participants' background in evaluation and current professional roles.

Instruments for follow-up on participants, non-attendees, and non-applicants have not been completed, but will be finalized and administered to the appropriate groups in approximately four months (April, 1973).

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<sup>3</sup>The evaluators hope to develop a more objective measure of cognitive outcomes for Institute Two in order to assess the reality of participants' perceptions of their understanding of evaluation.

<sup>4</sup>Other information concerning participant and staff reactions to the Institute was obtained from talking informally with both groups during the Institute, and from subsequent correspondence between participants and staff which was supplied to the evaluators by members of the staff (Appendix G).

Instrument Administration and Analyses

Instrument #1 was administered to each participant prior to the beginning of Institute activities. At the same time, eleven of the attendees were randomly selected to respond to Participant Instruments #2 and #3 (the cognitive and affective measures); these instruments were also given to the entire group as a post-test at the conclusion of the Institute. The resulting evaluation design appears below.<sup>5</sup>

R	$O_1$	X	$O_2$
R			$O_3$

Participant Instrument #4 and Staff Instrument #1 were also administered at the conclusion of the Institute to all persons in their respective groups.

The following analyses were performed on the data:

- (1) descriptive statistics, comprising simple tabulations with means and standard deviations where appropriate, for all instruments.
- (2) one way ANOVAs between total pre-and post-test scores on Participant Instruments #2 and #3, for the following comparisons:  $O_1 - O_2$ ,  $O_1 - O_3$ , and  $O_2 - O_3$ .
- (3) contingency tables; employing institution and total amount of money expended for the Institute by each participant were used as stratifying variables and plotted against responses to items 4, 23 and 24 on Participant Instrument #4.

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<sup>5</sup>Subscripts are used to facilitate the identification of groups in the description of analyses performed.

All evaluative procedures for this Institute were conducted by the present authors, with assistance on <sup>SOME</sup> computer analyses from Roy Gabriel and Don Phillips, graduate fellows of the Laboratory of Educational Research, University of Colorado.

### Evaluation Results

The results of this evaluation are organized under the three basic evaluative instruments which were used in the evaluation.

#### Self-Report of Knowledge

Tabulations of pre- and post-test responses on the self report of knowledge are presented in Table 2. Analyses of variance were performed between total pre- and post-test scores on this instrument; results are presented in Table 3. Significant differences were found at the .05 level both between the pretest ( $O_1$ ) and the same group on the post-test ( $O_2$ ), and between the pretest ( $O_1$ ) and the unpretested post-test group ( $O_3$ ). Apparently, participants perceived themselves as having significantly increased their understanding of evaluation-related topics. However, it is interesting to note that participants indicated considerable gains on item 6, "evaluation designs, including time series vs. control groups," a topic which was not treated in this Institute. It is possible that the resource table operated to increase actual participant knowledge relating to evaluation design, in which case these perceived gains in knowledge could reflect real gains. However, it seems equally possible that these perceptions are unrealistic and merely reflect an increase in attitude toward the subject; perhaps this instrument assesses affective rather than cognitive outcomes. In short, Instrument #3 did not



Table 2

Tabulation of Pre (n = 11) and Post (n = 24) Responses to Participant Instrument #2, the Self-report of Knowledge Inventory

Topic	Participant Understanding Was:											
	Excellent		Good		Some		Little		None		Omit	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Problems evaluators have to deal with	3 (12)	6 (55)	19 (79)	2 (8)	5 (45)	2 (8)						
Alternative frameworks for dealing with evaluation problems		1 (9)	11 (46)	9 (38)	5 (45)	2 (8)	4 (36)	2 (8)	1 (9)	2 (8)		
Criteria for meta-evaluation	1 (4)		7 (29)	7 (29)	4 (36)	7 (29)	4 (36)	2 (8)	7 (64)	1 (4)	1 (4)	
Definition of evaluation	2 (18)	3 (27)	10 (42)	4 (17)	5 (45)	4 (17)	1 (9)	1 (4)				
Cost considerations in evaluation	1 (9)	2 (18)	13 (54)	9 (38)	6 (55)	9 (38)	2 (18)				1 (4)	
Evaluation designs	3 (12)	5 (21)	5 (21)	14 (58)	3 (27)	14 (58)	5 (45)	2 (8)	3 (27)			
Procedures for site visit evaluation	2 (8)	7 (29)	7 (29)	9 (38)	5 (45)	9 (38)	3 (27)	5 (21)	1 (9)		1 (4)	
The role of values in education	1 (9)	2 (18)	12 (50)	8 (33)	6 (55)	8 (33)	2 (18)	1 (4)		1 (4)		
Emergent techniques for working on evaluation problems	1 (4)	11 (46)	11 (46)	10 (42)	3 (27)	10 (42)	5 (45)	2 (8)	3 (27)			
Evaluation Methodology	2 (8)	15 (62)	15 (62)	6 (25)	7 (64)	6 (25)	3 (27)	1 (4)				
How to implement a strategy for solving evaluation problems	3 (12)	12 (50)	12 (50)	8 (33)	7 (64)	8 (33)	2 (18)	1 (4)	1 (9)			
Roles of the evaluator	1 (9)	6 (25)	14 (58)	4 (12)	8 (73)	4 (12)						

Note: Percent of total responses in parentheses.

Table 3

Analyses of Variance of Scores on Participant Instrument #2,  
the Self-report of Knowledge Inventory

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Pretest ( $O_1$ , n = 11) vs. same group on post-test ( $O_2$ , n = 11)

SV	SS	df	MS	F	p
Treatment	290.91	1	290.91	10.23	< .01
Error	568.55	20	28.43		
Total	859.46	21			

---

Pretest ( $O_1$ , n = 11) vs. unpretested group on post-test ( $O_3$ , n = 13)

SV	SS	df	MS	F	p
Treatment	702.74	1	702.74	27.85	< .001
Error	555.22	22	25.24		
Total	1257.96	23			

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Pretested post-test ( $O_2$ , n=11) vs. unpretested post-test ( $O_3$ , n = 13)

SV	SS	df	MS	F	p
Treatment	76.68	1	76.68	3.11	n.s.
Error	541.94	22	24.63		
Total	618.62	23			

---

supply important data about whether participants actually increased their knowledge in evaluation topics covered in the Institute. It did show that participants felt they increased their knowledge.

No significant differences were found between the two post-test groups, suggesting that there was no pretest sensitization effect for this instrument.

#### Attitudes toward Educational Evaluation

Tabulations of responses to Participant Instrument #3, the affective measure, are presented in Table 4. An analysis of variance performed on these results (Table 5) showed a significant difference between the pretest ( $O_1$ ,  $\bar{x} = 26.5$ ,  $S = 4.5$ ) and the unpretested post-test group ( $O_3$ ,  $\bar{x} = 22.5$ ,  $S = 3.5$ ) at the .05 level, but no significant difference in a repeated measures ANOVA between the pretest ( $O_1$ ) and the same group on the post-test ( $O_2$ ,  $\bar{x} = 27.0$ ,  $S = 4.7$ ).<sup>6</sup> The two post-test groups ( $O_2$  and  $O_3$ ) were also found to differ significantly at the .05 level. These results are puzzling, for it seems that while the pretest did not actually desensitize people to the treatment (i.e., those who took the pretest did not score less positively on the retest), it may have functioned as a retardant to affective growth. Since two pretests (cognitive and affective) were given to the same participants, it would be difficult to infer any kind of causal relationship, but there does seem to be some sort of differential effect in post-test responses of the pretested group as compared with the unpretested group.

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<sup>6</sup> Responses were scored with "1" denoting the most positive responses and "5" denoting the most negative responses.

Table 4

Tabulation of Pre (n = 11) and Post (n = 24) Responses to Participant Instrument #3,  
Inventory of Attitudes toward Educational Evaluation

	Strongly Disagree		Disagree		Undecided or Neutral		Agree		Strongly Agree		
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	
1. I see and feel deeply a need for increased evaluation information for decision-making in my field.	-	2 (8)			1 (4)		3 (27)	10 (42)	8 (73)	11 (46)	+
2. Educational evaluation usually results in arbitrary judgments about the educative process.	+	4 (17)	7 (64)	17 (71)	3 (27)	2 (8)	1 (9)	1 (4)			-
3. There is currently too much concern with evaluation in education.	+	4 (36)	7 (29)	5 (45)	14 (58)	2 (8)	1 (9)	1 (9)		1 (4)	-
4. Educators do not receive sufficient training in evaluation.	-	1 (4)	1 (9)				7 (64)	15 (62)	3 (27)	8 (33)	+
5. Educative processes are too complex to be evaluated objectively.	+	2 (18)	7 (29)	6 (55)	11 (46)	4 (17)	2 (18)	2 (8)			-
6. Evaluation is an attempt to reduce education to a mechanistic process.	+	2 (18)	10 (42)	7 (64)	11 (46)	3 (12)	1 (9)				-
7. Educational evaluation usually results in improvements in educational practice.	-			4 (36)	7 (29)	3 (33)	4 (36)	9 (38)			+
8. Evaluation should aid an educator in revising his goals even while the program is in progress.	-			1 (9)			4 (36)	12 (50)	6 (55)	12 (50)	+
9. Evaluation interferes with the running of schools more than it helps.	+	1 (9)	9 (38)	6 (55)	11 (46)	4 (17)	2 (18)				-

Table 4

Tabulation of Pre (n = 11) and Post (n = 24) Responses to Participant Instrument #3,  
Inventory of Attitudes toward Educational Evaluation

	Strongly Disagree		Disagree		Undecided or Neutral		Agree		Strongly Agree	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
10. Intuition and general knowledge of practitioners are more valuable than formal evaluative procedures in making decisions in education.		4 (17)	5 (45)	13 (54)	4 (36)	3 (12)	2 (18)	3 (12)		1 (4)
11. Using educational evaluation in my work does not appeal to me.	7 (64)	12 (50)	4 (36)	12 (50)						-
12. Money spent on evaluation contributes more to the improvement of education than any other expenditure.	1 (9)		4 (36)	9 (38)	4 (36)	11 (46)	2 (18)	4 (19)		+

Note: Percent of total responses, rounded to the nearest percent, in parentheses; + and - signs indicate the positive and negative poles of the scale for each item.

Table 5

Analysis of Variance of Scores on Participant Instrument #3,  
Inventory of Attitudes toward Educational Evaluation

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Pretest ( $O_1$ ,  $n = 11$ ) vs. same group on post-test ( $O_2$ ,  $n = 11$ )

SV	SS	df	ms	F	p
Treatment	1.64	1	1.64	.08	n.s.
Error	424.73	20	21.24		
Total	426.37	21			

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Pretest ( $O_1$ ,  $n = 11$ ) vs. unpretested group on post-test ( $O_3$ ,  $n = 13$ )

SV	SS	df	ms	F	p
Treatment	95.00	1	95.00	6.04	< .05
Error	345.96	22	15.73		
Total	440.96	23			

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Pretested post-test ( $O_2$ ,  $n = 11$ ) vs. unpretested post-test ( $O_3$ ,  $n = 13$ )

SV	SS	df	ms	F	p
Treatment	122.73	1	122.73	7.23	< .05
Error	393.23	22	16.97		
Total	495.96	23			

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### Critique Form

Participant reactions to the Institute, especially as surveyed by the critique form (Participant Instrument #4), tended to be very positive, with a few aspects of the Institute singled out for criticism. Tabulation of responses to most items from this instrument, along with means or standard deviations where appropriate, are presented in Tables 6 to 13. Some items have been deleted from this report, as they pertain to evaluation of the concept of Traveling Institutes rather than to the evaluation of this particular Institute. The remaining critique form items have been grouped into four logical clusters, and the results in this section have been subdivided into four corresponding sections.

Evaluation of pre-Institute planning. Participants were asked to record their impressions of pre-Institute planning in areas related to the topic, staff, facilities, fee structures, location, and date. Participant responses to these questions are summarized in Table 6.

In general, participants responded very positively to the importance of the Institute topic, both in relation to educational research and educational practice. All but one of the participants felt that the topic should be treated again in future Institutes. The staff selected to present the topic was judged to be very well-qualified.

Participants were asked to record total expenses (including travel, tuition fee, living expenses, etc.) they had incurred by attending the Institute, as well as the amount of money they personally had to spend to attend the Institute (i.e., non-reimbursable expense items). Total costs ranged from \$100 to \$700, with a mean of about \$320 and a median of \$300. However, personal expenses ranged only from \$0 to \$350 with a mean of about \$30 and a median of \$10. Only one individual was personally

Table 6

Tabulation of Participant Responses to Critique Items  
Relating to Pre-Institute Planning

<u>Item</u>						<u><math>\bar{x}</math></u>	<u>s</u>
1. How important do you feel the topic of this Institute is to educational research and/or evaluation?							
very important	1	2	3	4	5	very unimportant	
	(17)	(5)	(1)		(1)	1.46	.93
2. How important do you feel the topic of this Institute is to educational practice?							
very important	1	2	3	4	5	very unimportant	
	(14)	(7)	(2)		(1)	1.63	.97
4. Leaving aside the quality of instruction for the moment, do you think the <u>topic</u> treated in this Institute should be treated again in future Institutes?							
definitely	1	2	3	4	5	definitely not	
	(18)	(5)	(1)			1.30	.55
18. In your opinion, the staff members were in general:							
very well-qualified	1	2	3	4	5	very unqualified	
	(19)	(5)				1.21	.41
22. The meeting room facilities for the Institute were:							
excellent	1	2	3	4	5	poor	
	(5)	(9)	(6)	(2)	(2)	2.45	1.18
24. Considering what you have learned by attending this Institute (or any other benefits you have received from attendance), the tuition fee was:							
considerably too low	1	2	3	4	5	considerably too high	
			(16)	(5)	(3)	3.46	1.02

Note: Frequencies are shown in parentheses.



responsible for expenses over \$100, although one other did not yet know how much would be reimbursed to him.

Eight of the 24 participants felt that the tuition fee was too high, whereas 16 participants responded neutrally to the question. However, it should be remembered that in only two cases were participants themselves responsible for the tuition fee. Stratification of responses according to the total amount of money spent for each participant to attend the Institute (Tables 7, 8, and 9) suggests that there is no relationship between amount of money paid and attitude toward the amount of the tuition fee, the topic, or usefulness of the Institute.

The date and location of the Institute seem to have been convenient for most participants (data from Participant Instrument #1); only five felt the site was inconvenient, even though twelve participants traveled over 1,000 miles to the Institute. This suggests that the immediacy of professional needs or interests attracted more participants than did the regional convenience.

Meeting rooms were rated from excellent to poor. A few participants mentioned that noises from the street and other meeting rooms were sometimes distracting. However, most participants felt the meeting rooms ranged from adequate to good.

Evaluation of conduct of the Institute. Participants were also asked to respond to questions dealing with the conduct of the Institute itself, including concerns for the success of its activities, content validity, objectives, and instruction. Summaries of responses to these questions are presented in Table 10.

Table 7

Summary of Responses on Item 4, Stratified by  
Total Amount Spent for Each Participant to Attend Institute

Item 4: Leaving aside the quality of instruction for the moment, do you think the topic treated in this Institute should be treated again in future institutes?

Total \$ Spent to Attend Institute	Definitely			Definitely Not		Total
	1	2	3	4	5	
\$ 0 to \$150	4 (100)					4 (100)
\$151 to \$250	4 (80)	1 (20)				5 (100)
\$251 to \$350	2 (33)	3 (50)	1 (17)			6 (100)
\$351 to \$450	5 (100)					5 (100)
More than \$450	3 (75)	1 (25)				4 (100)
Total	18 (75)	5 (21)	1 (4)			24 (100)

Note: Percentages of row totals are shown in parentheses below each frequency.

Table 8

Summary of Responses on Item 23, Stratified by  
Total Amount Spent for Each Participant to Attend Institute

Item 23: Do you anticipate that what you have learned from the Institute will be useful to you in your own work?

Total \$ Spent to Attend Institute	Definitely		3	Definitely Not		Total
	1	2		4	5	
\$ 0 to \$150	2 (50)	1 (25)	1 (25)			4 (100)
\$151 to \$250	3 (60)	2 (40)				5 (100)
\$251 to \$350	2 (33)	1 (17)	2 (33)	1 (17)		6 (100)
\$351 to \$450	3 (60)	1 (20)	1 (20)			5 (100)
More than \$450	1 (25)	1 (25)	1 (25)	1 (25)		4 (100)
Total	11 (46)	6 (25)	5 (21)	2 (8)	0	24 (100)

Note: Percentages of row totals are shown in parentheses below each frequency.

Table 9

Summary of Responses on Item 24, Stratified by  
Total Amount Spent for Each Participant to Attend Institute

Item 24: Considering what you have learned by attending this Institute  
(or any other benefits you have received from attendance),  
the tuition fee was:

Total \$ Spent to Attend Institute	Considerably too low		Considerably too high			Total
	1	2	3	4	5	
\$ 0 to \$150			3 (75)	1 (25)		4 (100)
\$151 to \$250			4 (80)	1 (20)		5 (100)
\$251 to \$350			4 (67)	1 (17)	1 (16)	6 (100)
\$351 to \$450			2 (40)	1 (20)	2 (40)	5 (100)
More than \$450			3 (75)	1 (25)		4 (100)
Total	0	0	16 (67)	5 (21)	3 (12)	24 (100)

Note: Percentages of row totals are shown in parentheses below each frequency.

Table 10  
 Tabulation of Participant Responses to Items  
 on Conduct of the Institute

<u>Item</u>							$\bar{x}$	$s$
3. How relevant was the content of the Institute to the topic that was advertised?							2.08	.93
highly relevant	1 (6)	2 (12)	3 (5)	4	5 (1)	not at all relevant		
5. The staff's objectives for this Institute were:							3.00	.98
very clear to me	1 (9)	2 (8)	3 (5)	4 (2)	5	very unclear to me		
6. The planning and organization of this Institute was:							2.79	1.10
excellent	1 (3)	2 (6)	3 (10)	4 (3)	5 (2)	poor		
7. Overall, was the Institute long enough to cover the topic adequately?							3.33	.96
considerably too long	1 (1)	2 (1)	3 (15)	4 (3)	5 (4)	considerably too short		
8. As a rule, <u>daily</u> sessions were:							2.65	.57
considerably too long	1 (1)	2 (6)	3 (16)	4	5	considerably too short		
9. Do you feel all necessary prerequisites were clearly stated in information you received prior to the Institute? (check ONE)								
<u>7</u> Yes, they were clearly stated								
<u>10</u> No, they were ambiguous								
<u>7</u> No prerequisites were listed								
10. Did you receive advance reading materials from the Institute director(s) early enough to read them prior to the Institute? (Check ONE)								
<u>      </u> Yes, materials came early enough								
<u>1</u> No, materials came too late								
<u>22</u> No materials were sent								

Table 10

Tabulation of Participant Responses to Items  
on Conduct of the Institute

<u>Item</u>	$\bar{x}$	s
11. Do you think you entered the Institute with the appropriate prerequisites or prior knowledge to make what you learned there of value to you?	2.0	.88
I had more than enough preparation	1 (8)	
2 (9)	3 (6)	
4 (1)	5	
I was seriously lacking in preparation		
12. How often did the instructional procedures take into account variability in prior knowledge brought to the Institute by participants?	3.0	.95
always	1 (1)	
2 (7)	3 (6)	
4 (9)	5	
never		
13. Overall, the quality of instruction in this Institute was:	2.25	.90
excellent	1 (4)	
2 (13)	3 (4)	
4 (3)	5	
poor		
14. The instruction was generally:		
too lecture-oriented	1 (3)	
2 (17)	3 (17)	
4 (4)	5	
too discus- sion-oriented		
very interesting	1 (6)	
2 (10)	3 (8)	
4	5	
very uninteresting		
very informative	1 (6)	
2 (10)	3 (7)	
4 (1)	5	
very uninformative		
15. Opportunities for asking questions and studying were:	1.79	.93
sufficient	1 (10)	
2 (11)	3 (2)	
4	5 (1)	
insufficient		
16. The amount of work the staff required of you was:	3.50	.72
far too much	1	
2	3 (15)	
4 (6)	5 (3)	
far too little		

Table 10

Tabulation of Participant Responses to Items  
on Conduct of the Institute

<u>Item</u>		$\bar{x}$	s
17. Opportunities for you to interact with the staff with respect to problems in your own work which relate to the topic were:		3.25	1.15
	sufficient    1    2    3    4    5    insufficient		
	(3) (2) (7) (10) (2)		
18. In your opinion, the staff members were in general:		2.13	1.08
	very well-prepared    1    2    3    4    5    very unprepared		
	(7) (12)                    (5)		
19. Did the staff seek your reactions to their instructional procedures, scheduling, etc. <u>during</u> the Institute?		1.58	.83
	frequently    1    2    3    4    5    never		
	(15) (4) (5)		
20. Did it appear to you that your reactions led to improvements in the instructional procedures, schedules, etc?		2.46	.83
	frequently    1    2    3    4    5    never		
	(4) (8) (9) (3)		
21. The formal evaluation of this Institute by the "outside evaluation" (e.g., those instruments) was:		1.29	.62
	not at all disruptive    1    2    3    4    5    very disruptive		
	(17) (3) (2)		

Note: Frequencies are shown in parentheses.

Participants tended to view the content of the Institute as relevant to the topic advertised. However, several (7) participants believed that the staff's objectives were unclearly stated. A majority of participants indicated that prerequisites for the Institute were stated ambiguously or not at all. Apparently this did not result in participants "getting in over their heads," since all but one of the participants said they were at least adequately prepared, and most believed they had more than enough preparation. This last item may signal a problem in the reverse direction; some participants may have felt they were too prepared for the content of this Institute. Several participants indicated that the instructional process seldom considered individual differences in preparation for the Institute.

In terms of scheduling, the weight of opinion leaned to the view that the Institute was too short to cover the topic adequately, whereas the daily sessions tended to be viewed as too long.

The quality of instruction was rated as generally good; it was viewed as interesting, informative, and seemed to have achieved the right balance between lecture and discussion. General planning and organization for the Institute received varied ratings, with about 35 percent of the participants rating them positive, 20 percent negative, about half neutral. Most participants felt the staff members were well prepared, although five believed them to be somewhat unprepared. This observation was amplified by informal remarks from several participants who indicated that although the presentations were for the most part consistently interesting, it seemed at times that staff members were "talking off the tops of their heads" about general concerns in evaluation, with little attention to the integration of interesting bits and pieces within the context of this Institute. These comments,



although offered by a minority of the participants were consistent with the evaluators' perceptions that the presentations were interesting and provocative, but were not integrated into a cohesive framework to aid participants integrate the various concepts.

Interestingly, a majority of the participants felt that the Institute did not demand enough work on their part.

Most participants felt they had ample opportunities to provide feedback to the staff on scheduling, instructional procedures, etc., and a majority felt that feedback led to improvements in those areas.

Several participants stated early in the Institute that they were attending primarily because of the reputations of the directors (one even mentioned something about obtaining autographs, but the evaluators failed to follow up to see if this objective had been attained). Some participants were interested primarily in hearing Scriven and Stufflebeam in person, while others clearly hoped to corner the staff at some point for consultation on personal problems and seemed to feel such opportunities would be provided, as indicated in the Educational Researcher description of the Institute (Appendix H). When questioned about opportunities for interaction with the staff concerning personal problems relating to the topic, half of the participants stated that they felt these opportunities were somewhat insufficient.

Evaluation of Institute activities. Item 29 asked participants to evaluate specific activities during the Institute; a summary of their responses to this question is presented in Table 11.

Some of the most negative criticisms of the Institute were directed toward the Thursday morning reading session. Although ratings ranged from "very valuable" to "worthless," many participants suggested, both

Table 11  
 Tabulation of Participant Responses to Items on the  
 Evaluation of Institute Activities

		<u>no opportunity to judge</u>	<u>very valuable</u>			<u>worthless</u>		<u><math>\bar{x}</math></u>	<u>s</u>
29.	How would you rate the value of each of the following aspects of this Institute? (Please circle ONE for EACH row)								
a.	Scriven on accreditation	NA	1 (2)	2 (2)	3 (9)	4 (4)	5 (1)	3.00	1.03
b.	Scriven's initial presentation (Pathway)	NA	1 (9)	2 (7)	3 (7)	4	5 (1)	1.91	.85
c.	Stufflebeam's initial presentation	NA	1 (10)	2 (11)	3 (2)	4	5	1.65	.65
d.	Reinhard's initial presentation (advocacy teams)	NA	1	2 (4)	3 (8)	4 (7)	5 (2)	3.33	.91
e.	Scriven's "special topics" presentation (goal-free evaluation)	NA	1 (10)	2 (12)	3 (2)	4	5	1.67	.64
f.	Stufflebeam's "special topics" presentation (School System evaluation)	NA	1 (13)	2 (8)	3 (3)	4	5	1.58	.72
g.	Resource table (materials)	NA	1 (6)	2 (5)	3 (5)	4 (6)	5 (1)	2.71	1.33
h.	Informal discussion with peers	NA	1 (3)	2 (11)	3 (5)	4 (4)	5	2.54	1.06
i.	Discussion of participants' evaluation problem (Fri. a.m.)	NA	1 (5)	2 (10)	3 (8)	4 (1)	5	2.23	.83
j.	General Question & answer sessions with staff	NA	1 (4)	2 (11)	3 (7)	4 (2)	5	2.29	.86
k.	Discussion of workbook examples	NA	1 (4)	2 (6)	3 (4)	4 (8)	5 (1)	2.96	1.23
l.	Thursday morning reading session (9-12)	NA	1 (4)	2 (2)	3 (6)	4 (6)	5 (5)	3.30	1.33

Note: Frequencies are shown in parentheses.

during the Institute and in the open-ended questions, that time spent in reading was wasted. It was suggested that advance reading materials be sent so that all required reading could be done prior to the Institute, and that the morning session be replaced by more time in staff-directed activities. This, of course, assumes that participants will in fact read any materials sent to them in advance. However, if they fail to do so, the failure is at least of their own doing.

The resource table per se was rated slightly more positively, and a number of participants were observed browsing through the materials during free time throughout the two days. Several others requested that the resource table be available at all times not spent in specific Institute activities (e.g., at the conclusion of the evening session).

Activities rated as most valuable included Scriven's presentations on the "Pathway" model of evaluation and goal-free evaluation, and Stufflebeam's presentations of problems faced by evaluators and school system evaluation. A few people expressed the desire to have more time set aside to interact with each of these ideas before moving on to another topic.

Activities rated least valuable were Scriven's talk on school accreditation, Reinhard's discussion of advocacy teams, and the Thursday evening workbook exercises. The accreditation lecture came late in the Institute (Friday afternoon); many participants seemed generally tired or disinterested, which may or may not have been a function of Scriven's presentation. Similarly, Reinhard's presentation on advocacy teams came toward the end of a two-hour session and might have benefitted if it had been scheduled after a break or at some other more favorable time. Also, this was the only one of the three initial presentations in which questions were consistently asked during the lecture instead of at the end; this seemed to detract from its continuity.

Although ratings of the workbook examples ranged from very valuable to worthless, the workbook produced numerous negative comments from participants during Thursday dinner. The staff's directions were perceived by both the evaluators and by several participants to be unclear; participants appeared to be both confused and hostile toward the activity as a whole. However, the directors managed to salvage the activity reasonably well during the course of the evening session.

Discussion of participants' evaluation problems and general question and answer sessions with staff were rated as valuable. A majority of the participants rated the informal discussion with peers as valuable, even though little time was available in the schedule for interaction among participants.

Responses to the open-ended questions seemed to be slightly less positive than those to more structured items. Responses to open-ended questions which tended to be recurrent among participants are summarized in Table 12. Several participants indicated both verbally and in their responses to the open-ended questions that they would have preferred more lecture and discussion emphasis on internal rather than external evaluation. Others felt they would have liked greater diversity in the "alternative conceptions of evaluation" presented. Some persons said they had expected Scriven and Stufflebeam to hold quite different views on evaluation, but found that they were not sufficiently different in their approach to evaluation to generate useful and provocative dialogues. This criticism seems relevant, since the Institute was billed as alternative conceptions of evaluation, as is noted in the "flyer" shown herein as Appendix H.

Table 12

Summary of Participant Perceptions of Major Strengths and Weaknesses of the Evaluation Institute, from Responses to Open-ended Questions

<u>Strengths</u>	<u>Weaknesses</u>
1. Interactions between staff and participants.	1. Lack of advance organization (e.g., statement of prerequisites, advance reading materials).
2. Qualifications and reputations of staff.	2. Thursday morning reading session.
3. Presentation of new perspectives on various issues in evaluation.	3. Not enough time for personal interactions with staff.
	4. Excessive emphasis on external rather than internal evaluation.
	5. Daily sessions too long.
	6. Lack of diversity in models and concepts discussed.

General evaluation of the Institute. Overall participants' reactions to the Institute are summarized in Table 13. The majority of the participants believed that what they had learned from the Institute would be useful to them in their work. A majority of participants also stated both that they would attend this Institute if they had to choose again, and would recommend it to a colleague.

Reactions to various aspects of the Institute are presented in Tables 14, 15, and 16, with the employing institution of participants used as a stratifying variable. These analyses were efforts to determine if participants from universities differed in their reactions from participants from public schools, etc. However, there appear to be no discernable differences

among groups on this stratifying variable with respect to responses concerning the topic, tuition fee, and usefulness of the Institute.

Tabulations of responses to the staff questionnaire are available in Appendix I. These seem to speak for themselves and will not be discussed here.

Table 13

Tabulation of Participant Responses to Items on the  
General Evaluation of the Institute

<u>Item</u>		$\bar{x}$	<u>s</u>
23. Do you anticipate that what you have learned from the Institute will be useful to you in your own work?			
definitely	1	2	3
	(11)	(6)	(5)
		4	5
		(2)	
			definitely not
		1.92	1.02
27. If you were able to choose over again, would you attend this Institute?			
	<u>(17)</u> Yes	<u>(2)</u> No	<u>(5)</u> Uncertain
28. If this Institute were held again, would you recommend to a colleague that they attend?			
	<u>(17)</u> Yes	<u>(4)</u> No	<u>(3)</u> Uncertain

Note: Frequencies are shown in parentheses.

Table 14

Summary of Responses on Item 4, stratified by  
Employing Institution

Item 4: Leaving aside the quality of instruction for the moment, do you think the topic treated in this Institute should be treated again in future Institutes?

Employing Institution	definitely		3	definitely not		Total
	1	2		4	5	
College or University	7 (58)	4 (34)	1 (8)	0 (0)	0 (0)	12 (100)
Public School System	6 (86)	1 (14)	0 (0)	0 (0)	0 (0)	7 (100)
Regional Laboratory	1 (100)	0 (0)	0 (0)	0 (0)	0 (0)	1 (100)
Federal Government	1 (100)	0 (0)	0 (0)	0 (0)	0 (0)	1 (100)
State Dept. of Education	1 (100)	0 (0)	0 (0)	0 (0)	0 (0)	1 (100)
Other	1 (100)	0 (0)	0 (0)	0 (0)	0 (0)	1 (100)
Total	17 (74)	5 (22)	1 (4)	0 (0)	0 (0)	23 (100)

Note: Percentages of row totals are shown in parentheses below each frequency.

Table 15  
Summary of Responses on Item 23, Stratified by  
Employing Institution

Item 23: Do you anticipate that what you have learned from the Institute will be useful to you in your own work?

Employing Institution	definitely		3	definitely not		Total
	1	2		4	5	
College or University	5 (42)	3 (25)	3 (25)	1 (8)	0 (0)	12 (100)
Public School System	3 (43)	2 (29)	2 (28)	0 (0)	0 (0)	7 (100)
Regional Laboratory	0 (0)	0 (0)	0 (0)	1 (100)	0 (0)	1 (100)
Federal Government	1 (100)	0 (0)	0 (0)	0 (0)	0 (0)	1 (100)
State Dept. of Education	1 (100)	0 (0)	0 (0)	0 (0)	0 (0)	1 (100)
Other	1 (100)	0 (0)	0 (0)	0 (0)	0 (0)	1 (100)
Total	11 (48)	5 (22)	5 (22)	2 (8)	0 (0)	23 (100)

Note: Percentages of row totals are shown in parentheses below each frequency.



Table 16  
 Summary of Responses on Item 24, Stratified by  
 Employing Institution

Item 24: Considering what you have learned by attending this Institute (or any other benefits you have received from attendance), the tuition fee was:

Employing Institution	considerably too low		considerably too high			Total
	1	2	3	4	5	
College or University	0 (0)	0 (0)	8 (67)	1 (8)	3 (25)	12 (100)
Public School System	0 (0)	0 (0)	4 (57)	3 (43)	0 (0)	7 (100)
Regional Laboratory	0 (0)	0 (0)	1 (100)	0 (0)	0 (0)	1 (100)
Federal Government	0 (0)	0 (0)	0 (0)	1 (100)	0 (0)	1 (100)
State Dept. of Education	0 (0)	0 (0)	1 (100)	0 (0)	0 (0)	1 (100)
Other	0 (0)	0 (0)	1 (100)	0 (0)	0 (0)	1 (100)
Total	0 (0)	0 (0)	15 (65)	5 (22)	3 (13)	23 (100)

Note: Percentages of row totals are shown in parentheses below each frequency.

### Summary and Recommendations

Overall, participants' reactions to the first "Alternative Conceptions of Evaluation" Institute were quite positive. The directors and staff also felt the Institute was generally successful. These reactions are congruent with those of the evaluators. It is the judgment of the present authors that the Institute was, in general, a success both as an individual two-day session and also as the first in a proposed series of three AERA traveling institutes on evaluation. The evaluators strongly recommend that this series of institutes be continued. However, there are a few suggestions which might be made for the improvement of the January Institute.

1. The Institute objectives and detailed agenda should be made available to participants sufficiently in advance of the Institute that they know what to expect. It should either be made more clear that the two days are not to be spent in personal consultation with each individual, or more time should be scheduled for this sort of activity.

2. Information about participants' prior training and experience in evaluation should be collected and reviewed by the Institute directors to assure an appropriate match between participants' backgrounds and the content and activities of the Institute. In the present Institute, the staff tended slightly toward the perception that the content was too difficult for participants, while a large majority of the participants felt they were over-prepared for what they experienced. Resolving this particular discrepancy in perceptions is not important, but it does point to a need to attend to the match between background and activities. (The inability to resolve the discrepancy also points to the need for a better measure of learning for subsequent institutes.)

3. The next Institute should either present more closely delineated alternative conceptions of evaluation or the billing of the Institute should be changed to avoid misleading prospective participants.

4. Based on the reactions of participants, it might be recommended that the Institute should be lengthened to three days. However, there is no way to determine from these data whether participants would be willing to pay a proportionate increase in fees. In view of current ambiguities surrounding fee policies for AERA training sessions, this recommendation might best be viewed as something which would be desirable but may or may not be feasible. Until more data are collected on more AERA training sessions under the present fee structure, the Institute directors and AERA Model A director will simply have to make a best guess on this. In the evaluators' opinion, more time would prove very useful in helping participants satisfy their objectives in attending the Institute.

5. The first morning reading session should be abandoned. Instead, all necessary materials (e.g., notebooks) should be mailed to participants sufficiently prior to the Institute that they have time to read them in advance. The reading session should either be (a) replaced with extra structured activities, (b) split to provide time to use the "resource table" throughout the two days, or (c) activities should be advanced by a few hours and the evening work session should be abandoned.

6. More time could be given to informal interaction among participants, either with or without staff present, to enable them to become acquainted and to discuss issues presented. However, this should be done only if it can be scheduled without sacrificing any time now spent in directed activities. For example, if the morning reading session were cancelled, activities could be moved ahead a few hours, leaving the evening free for more informal interaction.

7. Instructions should be presented more clearly. This is especially true for the workbook activity, if it is to be used again.

8. More work should be expected of participants during the Institute. The data which support this recommendation may merely reflect the prevalent belief structure that passive reception is a less effective mode of learning than more active alternatives. Whatever the source, participants expressed a feeling that they were not worked hard enough -- a rare complaint in the experience of the evaluators. Ways should be found to involve participants in relevant reading, simulations, or activities which demand participant work on evaluation designs, instruments, etc., to supplement verbal input they receive.

9. Presentations and activities should be more carefully integrated to make the overall presentation more cohesive.

10. Internal evaluation should be emphasized more and external evaluation of programs emphasized less in subsequent institutes (unless different types of participants are selected). Informal comments made to the evaluators support participants' written reactions and suggest strongly that they are not in attendance to learn how to evaluate someone else's program, but have to evaluate their own. Of course, there were some exceptions to this statement and a different group of participants could differ dramatically from the present group on this dimension. Perhaps a tailored question on the application form could serve a useful purpose in sensitizing the directors to variation on this dimension or may even enable them to select participants who have common needs relating to the Institute content.

11. A final recommendation which is supported only very indirectly by the data reported herein is that the number of participants in the next Institute should be increased.<sup>7</sup> In the opinion of the evaluators, there is nothing in the present Institute format or in the recommendations for modification listed above which would in any way prevent 30 or 35 participants from receiving training equal to that received by the present participants. Given the fact that one purpose in sponsoring the series of traveling institutes is to determine whether or not AERA could conduct such activities on a self-supporting (or even profit-making) basis in the future, it would be highly desirable to vary the number of participants admitted to the institutes. The Institute evaluated herein cost AERA a total of \$2,562 (including direct costs for the Institute and evaluation and indirect AERA Central Office costs for the former) and yielded a return of \$2180 in participant fees, for an overall loss of \$382. Although this is not serious under the present situation where such experimentation is underwritten by USOE, it is important to determine now whether institutes could be run in the future on a break-even or profit basis without sacrificing quality of training. To the extent that this recommendation could be implemented, it would be helpful in the forthcoming overall evaluation of the practicability of AERA sponsoring traveling institutes without Federal support.

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<sup>7</sup> This recommendation is at mild variance with staff perceptions relating to number of participants (see Appendix I, Item 3).

## Appendix A

### Tentative Agenda

AERA TRAINING INSTITUTE  
TENTATIVE AGENDA

October 19, 1972

9:00 - 11:00	Registration and independent reading	
11:00 - 11:30	Evaluation	Blaine Worthen
11:30 - 1:00	Lunch	
1:00 - 5:00	Perspectives on the field of evaluation and discussion of particular evaluation problems	Michael Scriven Daniel Stufflebeam Diane Reinhard
	Discussion	
	Introduction of Jim Sanders' materials on evaluation problems	
	Organization of small groups	
5:00 - 7:00	Dinner	
7:00 - 10:00	Case work by groups focusing on selected models	
	Discussion	
	Cases without answers	
	Discussion	
10:00	Adjournment	

October 20, 1972

9:00 - 11:30

Discussion of common elements  
in evaluation

Scriven &  
Stufflebeam

Group work focused on problems posed by participants. (Within each group one member would serve as a client, one as an evaluation design specialist, one as a recorder, and one as a general evaluation administrator. The evaluation group would attempt to respond to the evaluation problem posed by the person playing the role of the client).

11:30 - 1:00

Lunch

1:00 - 3:00

Group reports

Discussion of the reports

Discussion of the institute

3:00 - 3:45

Final evaluation

Blaine Worthen

3:45

Adjournment



Appendix B

Application Form

APPLICATION FOR AERA RESEARCH TRAINING INSTITUTE

ALTERNATIVE CONCEPTIONS OF EVALUATION

Michael Scriven & Daniel Stufflebeam

GENERAL INFORMATION

1. Name: \_\_\_\_\_  
Last First Initial
2. Mailing address: \_\_\_\_\_
3. Present Institutional Affiliation (e.g., UCLA, NYC. School Dist.): \_\_\_\_\_
4. TITLE: \_\_\_\_\_

EMPLOYMENT INFORMATION

5. Describe briefly the nature of your present employment: \_\_\_\_\_
6. Describe briefly any changes you expect in your employment during the coming year with respect to either employer or type of activity: \_\_\_\_\_
7. What percent of your time is allotted to teaching? \_\_\_\_\_ b. To Research or Evaluation? \_\_\_\_\_ c. To grad. study? \_\_\_\_\_ d. Administration? \_\_\_\_\_

EDUCATIONAL HISTORY

8. Masters School: \_\_\_\_\_ b. Doctoral School: \_\_\_\_\_  
Major \_\_\_\_\_ Major \_\_\_\_\_
9. Record in the blank the approximate number of courses you have taken at either undergraduate or graduate level in each of the following areas:  
Curriculum \_\_\_\_\_ Psychology (Exper., Soc., Devel., or Learning) \_\_\_\_\_  
Educ. Administration \_\_\_\_\_ Sociology \_\_\_\_\_  
Educ. Measurement or Psychometrics \_\_\_\_\_ Computers \_\_\_\_\_  
Statistics and experimental design \_\_\_\_\_

PROFESSIONAL AND SCHOLARLY INTERESTS

10. Approximately how many research articles which you have authored alone or jointly have been accepted in scholarly (refereed) journal? \_\_\_\_\_  
b. List no more than three professional societies other than AERA of which you are a member \_\_\_\_\_
11. In order to insure that this Institute is responsive to the interests and needs of the participants please indicate, on a separate sheet(s), the relevance of this Institute to your present responsibilities, your interests, problems, and hopes for and in the field of evaluation, and the specific personal objectives you hope to realize by attending this training institute.

Return this application and two copies with a self addressed stamped envelope to American Educational Research Association, Training Institute, 1126 Sixteenth Street, N.W., Washington, D.C. 20036

Note: Do not send registration fee with this application location \_\_\_\_\_

## Appendix D

### Bibliography and Matrix

LOCATION OF REFERENCES ON DISPLAY

All documents listed on the previous pages have been numbered and placed on the table within certain cluster areas. If you are looking for a specific document, just scan the following matrix to see where the document is located.

	Schools	State Depts.	University	R&D	Federal
Context Evaluation	16, 29, 41	66	26		24, 60
Input Evaluation	14, 27, 28	20	65	40	30, 35.
Process & Product Evaluation	19, 23, 33	25, 37, 39	31		15, 22
Audit		58		50	
Installation of Evaluation Systems	43	46	44, 54	42, 52	47
Evaluation Training			21, 32, 45, 49, 51, 59, 61-64, 67, 68		
Performance Contracting	2, 17, 36				
Accountability	6, 5, 3	55, 56, 57			
Evaluation Books/Articles General	1, 3, 4, 5, 7, 8, 9, 10, 11, 12, 13, 18				
	34, 48, 38				

## REFERENCE TABLE DOCUMENTS

The following pages list books, articles, reports and other materials related to the field of evaluation. These documents are but a sample and should not be considered the only, or necessarily the best, information available.

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Appendix E

Evaluation Plan Outline

Examples of Evaluation Instruments, Questions Addressed by Those Instruments, and Information Needed to Answer Those Questions.

I. Participant Questionnaires

A. On-Site

1. What type of audience is attracted to the Institutes?
  - a. Professional roles
  - b. Experience related to the topic
  - c. Distance of home from Institute site
  - d. Professional credentials
  - e. Payment of expenses
  - f. Attendance at AERA convention
  - g. AERA membership
2. Was the Institute well organized?
  - a. Publicity and pre-information
  - b. Qualifications of staff
  - c. Advance learning materials
  - d. Appropriateness of fees
  - e. Convenience of site and dates
  - f. Importance of the chosen topic to the profession
3. Was the presentation of the topic interesting and effective?
  - a. Content validity
  - b. Provision for individual differences
  - c. Scheduling
  - d. Variety and balance of presentation
  - e. Opportunities for interaction with staff
  - f. Length of Institute
  - g. Supplementary materials
  - h. Statement of objectives
4. Did participants achieve positive gains from attending the Institute?
  - a. Cognitive gains
  - b. Affective gains
  - c. Achievement of personal objectives
  - d. Acquisition of professional contacts
5. Were the facilities and equipment at the Institute satisfactory?
  - a. Meeting rooms
  - b. Instructional equipment
  - c. Supplementary resources
6. Were the evaluative procedures employed effective?
  - a. Formative
  - b. Participant feedback
  - c. Resulting changes
  - d. Resulting disruption
  - e. Comparison with pre- and post-sessions

B. Follow-up

1. Did the participants achieve positive gains from attending the Institute?
  - a. Affective gain
  - b. Professional utilization of acquired skills and knowledge
  - c. Perception of competency growth

- II. Staff (On-Site)
  - A. Was the organization of the Institute satisfactory?
    - 1. Selection of audience
    - 2. Cooperation from Central Office
  - B. In what ways did staff perceive participants as benefitting from attending the Institute?
  - C. Were the facilities and equipment at the Institute satisfactory?
    - 1. Meeting rooms
    - 2. Living arrangements
  - D. Were the evaluative procedures employed effective?
    - 1. Helpfulness of formative evaluation
    - 2. Cooperation from evaluators
    - 3. Resulting changes
  - E. Comparison with pre- and post-sessions.
- III. Questionnaire for applicants who failed to attend
  - A. What type of audience was initially interested in the Institute but failed to attend?
    - 1. Professional role
    - 2. Distance of home from Institute
    - 3. Professional credentials
    - 4. Attendance at AERA conventions
    - 5. Experience related to the topic
  - B. Why did they choose not to come?
    - 1. Qualifications of chosen staff
    - 2. Fee structure
    - 3. Other expenses which would be incurred
    - 4. Convenience of site and date
    - 5. Professional relevance of the chosen topic
    - 6. Other reasons (open-ended)
- IV. Non-applicants
  - A. What type of AERA member expressed no interest in (or was unaware of) the Institute?
    - 1. Professional roles
    - 2. Experience related to the topic
    - 3. Distance of home from Institute site
    - 4. Professional credentials
    - 5. Attendance at AERA convention
  - B. Were they aware of the Institute?
    - 1. Publicity
    - 2. Pre-information
  - C. If so, why did they not apply?
    - 1. Qualifications of chosen staff
    - 2. Fee structure
    - 3. Convenience of site and dates
    - 4. Relevance of the chosen topic

Appendix F

Instruments

1972 AERA Traveling Institute

Participant Instrument #1

1. Topic of the Institute you are attending:  
\_\_\_\_\_
2. Location of the Institute you are attending (state):  
\_\_\_\_\_
3. You are presently employed in a: (check the ONE that is most applicable)  
 College or University  
 Public School System  
 Educational R&D Center  
 Regional Laboratory  
 Federal Government  
 State Department of Education  
 I am presently a student  
 Other (please specify) \_\_\_\_\_
4. Your primary role at your employing institution is that of: (check the ONE that is most applicable)  
 teacher  
 administrator  
 researcher  
 evaluator  
 developer  
 supervisor  
 student  
 other (please specify) \_\_\_\_\_
5. What academic degrees do you hold? (check the most advanced degree held)  
 bachelor's  
 master's  
 doctorate  
 other (please specify) \_\_\_\_\_
6. Please check the Division(s) of AERA of which you are presently a member.  
 A (Administration)  
 B (Curriculum and Objectives)  
 C (Learning and Instruction)  
 D (Measurement and Research Methodology)  
 E (Counseling and Human Development)  
 F (History and Historiography)  
 G (Social Context of Education)  
 H (School Evaluation and Program Development)  
 Student Member  
 I am not presently a member of AERA

7. How did you first learn about this Institute? (check ONE)

- professional publication (please specify) \_\_\_\_\_  
 colleague or student  
 mailed notice  
 other (please specify) \_\_\_\_\_

8. What are your primary reasons for attending this session? (check all that apply)

- desire to gain new skills or knowledge related to the topic  
 desire to improve existing skills or knowledge related to the topic  
 desire to discuss problems related to the topic with experts  
 other (please specify) \_\_\_\_\_

9. What prior experience have you had with the topic of this Institute? (check one)

- no experience whatsoever  
 have had limited experience (e.g., have read a little about the topic)  
 have had considerable experience (e.g., took a class on the topic, or worked for several months on activities where the topic was used)  
 great amount of experience (e.g., have used the topic for several years, or have taken several classes on the topic)

10. If this session were not available now, but was offered instead as a session for a similar amount of time either immediately before or after the convention in New Orleans in February, would you choose to attend the session there? (Assume registration fees, etc., remained constant)

- Yes       No

11. As far as you now know, do you plan to attend the AERA Convention in New Orleans this year?

- Yes       No

12. Is the date selected for the Institute convenient for you?

- Yes       No

13. Is the site selected for the Institute convenient for you?

- Yes       No

14. How far is your home from the site of this Institute? (check ONE)

- less than 50 miles  
 50-100 miles  
 101-500 miles  
 501-1000 miles  
 more than 1,000 miles



15. Approximately what percentage of your costs in each category below did you pay for personally? (i.e., you will not be reimbursed by your employer)

\_\_\_\_% travel  
\_\_\_\_% room and board  
\_\_\_\_% tuition fee

AERA Traveling Institutes

(ID Number)

Participant Instrument #2

Institute: \_\_\_\_\_ Location: \_\_\_\_\_

Please circle the code number which best describes your level of understanding of each of the topics below:

<u>Code</u>	<u>Interpretation</u>
1	Excellent understanding
2	Good understanding
3	Some understanding
4	Little understanding
5	No understanding

<u>Topic</u>	<u>Excellent</u>	<u>Good</u>	<u>Some</u>	<u>Little</u>	<u>None</u>
1. Problems evaluators have to deal with	1	2	3	4	5
2. Alternative frameworks for dealing with evaluation problems (e.g., Stake's Countenance Model, Provus' Discrepancy Model)	1	2	3	4	5
3. Criteria for meta-evaluation	1	2	3	4	5
4. Definition of evaluation	1	2	3	4	5
5. Cost considerations in evaluation	1	2	3	4	5
6. Evaluation designs, including time series vs. control groups	1	2	3	4	5
7. Procedures for site visit evaluation	1	2	3	4	5
8. The role of values in evaluation	1	2	3	4	5
9. Emergent techniques for working on evaluation problems (e.g., advocacy team approach)	1	2	3	4	5
10. Evaluation methodology	1	2	3	4	5
11. How to implement a strategy for solving evaluation problems	1	2	3	4	5
12. Roles of the evaluator	1	2	3	4	5

AERA Traveling Institutes

Participant Instrument #3

Directions: This opinionnaire attempts to assess attitudes of participants toward educational evaluation. Please indicate your agreement or disagreement with each statement by checking (✓) the answer that best describes how you personally feel, regardless of whether other people may agree or disagree with you. Although many of the questions may appear similar, please judge each one on an individual basis. Since we need to know your attitude, please answer each question frankly and honestly. There are no correct responses. There is no time limit, but respond as quickly as you can, and do not leave out any of the statements.

Topic of Institute \_\_\_\_\_

Location of Institute \_\_\_\_\_

1. I see and feel deeply a need for increased evaluation information for decision-making in my field.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Strongly Disagree	Disagree	Undecided or Neutral	Agree	Strongly Agree

2. Educational evaluation usually results in arbitrary judgments about the educative process.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Strongly Disagree	Disagree	Undecided or Neutral	Agree	Strongly Agree

3. There is currently too much concern with evaluation in education.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Strongly Disagree	Disagree	Undecided or Neutral	Agree	Strongly Agree

4. Educators do not receive sufficient training in evaluation.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Strongly Disagree	Disagree	Undecided or Neutral	Agree	Strongly Agree

5. Educative processes are too complex to be evaluated objectively.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Strongly Disagree	Disagree	Undecided or Neutral	Agree	Strongly Agree

6. Evaluation is an attempt to reduce education to a mechanistic process.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Strongly Disagree	Disagree	Undecided or Neutral	Agree	Strongly Agree

7. Educational evaluation usually results in improvements in educational practice.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Strongly Disagree	Disagree	Undecided or Neutral	Agree	Strongly Agree

8. Evaluation should aid an educator in revising his goals even while the program is in progress.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Strongly Disagree	Disagree	Undecided or Neutral	Agree	Strongly Agree

9. Evaluation interferes with the running of schools more than it helps.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Strongly Disagree	Disagree	Undecided or Neutral	Agree	Strongly Agree

10. Intuition and general knowledge of practitioners are more valuable than formal evaluative procedures in making decisions in education.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Strongly Disagree	Disagree	Undecided or Neutral	Agree	Strongly Agree

11. Using educational evaluation in my work does not appeal to me.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Strongly Disagree	Disagree	Undecided or Neutral	Agree	Strongly Agree

12. Money spent on evaluation contributes more to the improvement of education than any other expenditure.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Strongly Disagree	Disagree	Undecided or Neutral	Agree	Strongly Agree

## Participant Instrument #4

Directions: This evaluation form is administered by the AERA Research Training Committee or persons assisting them with this evaluation. Completed forms will be returned directly to the Committee by the person administering this form. After the data have been tabulated, the instructional staff of your session may request a summary. The principal purpose of this form is to assist in the planning of subsequent traveling institutes. Therefore, be completely candid in your responses. Do not sign your name.

Topic of this Institute \_\_\_\_\_

Location of this Institute \_\_\_\_\_

For each question or partial statement below, please circle the number which best reflects your reaction.

1. How important do you feel the topic of this Institute is to educational research and/or evaluation?  
 very important    1    2    3    4    5    very unimportant
2. How important do you feel the topic of this Institute is to educational practice?  
 very important    1    2    3    4    5    very unimportant
3. How relevant was the content of the Institute to the topic that was advertised?  
 highly relevant    1    2    3    4    5    not at all relevant
4. Leaving aside the quality of instruction for the moment, do you think the topic treated in this Institute should be treated again in future Institutes?  
 definitely    1    2    3    4    5    definitely not
5. The staff's objectives for this Institute were:  
 very clear to me    1    2    3    4    5    very unclear to me
6. The planning and organization of this Institute was:  
 excellent    1    2    3    4    5    poor
7. Overall, was the Institute long enough to cover the topic adequately?  
 considerably too long    1    2    3    4    5    considerably too short
8. As a rule, daily sessions were:  
 considerably too long    1    2    3    4    5    considerably too short

9. Do you feel all necessary prerequisites were clearly stated in information you received prior to the Institute? (check ONE)
- Yes, they were clearly stated  
 No, they were ambiguous  
 No prerequisites were listed
10. Did you receive advance reading materials from the Institute director(s) early enough to read them prior to the Institute? (check ONE)
- Yes, materials came early enough  
 No, materials came too late  
 No materials were sent
11. Do you think you entered the Institute with the appropriate prerequisites or prior knowledge to make what you learned there of value to you?
- I had more than enough preparation    1    2    3    4    5    I was seriously lacking in preparation
12. How often did the instructional procedures take into account variability in prior knowledge brought to the Institute by participants?
- always    1    2    3    4    5    never
13. Overall, the quality of instruction in this Institute was:
- excellent    1    2    3    4    5    poor
14. The instruction was generally:
- too lecture-oriented    1    2    3    4    5    too discussion-oriented  
 very interesting    1    2    3    4    5    very uninteresting  
 very informative    1    2    3    4    5    very uninformative
15. Opportunities for asking questions and studying were:
- sufficient    1    2    3    4    5    insufficient
16. The amount of work the staff required of you was:
- far too much    1    2    3    4    5    far too little
17. Opportunities for you to interact with the staff with respect to problems in your own work which relate to the topic were:
- sufficient    1    2    3    4    5    insufficient
18. In your opinion, the staff members were in general:
- very well-qualified    1    2    3    4    5    very unqualified  
 very well-prepared    1    2    3    4    5    very unprepared

19. Did the staff seek your reactions to their instructional procedures, scheduling, etc., during the Institute?
- frequently      1      2      3      4      5      never
20. Did it appear to you that your reactions led to improvements in the instructional procedures, scheduling, etc.?
- frequently      1      2      3      4      5      never
21. The formal evaluation of this Institute by the "outside evaluation" (e.g., those instruments) was:
- not at all disruptive      1      2      3      4      5      very disruptive
22. The meeting room facilities for the Institute were:
- excellent      1      2      3      4      5      poor
23. Do you anticipate that what you have learned from the Institute will be useful to you in your own work?
- definitely      1      2      3      4      5      definitely not
24. Considering what you have learned by attending this Institute (or any other benefits you have received from attendance), the tuition fee was:
- considerably too low      1      2      3      4      5      considerably too high
25. Approximately how much money (including travel costs, living expenses, and tuition) did this Institute cost you personally (i.e., was not reimbursed)? \_\_\_\_\_
26. What was the total amount of money (including travel, living expenses, and tuition) your attendance cost, including personal costs to you and costs paid by your institution or other sources? \$ \_\_\_\_\_
27. If you were able to choose over again, would you attend this Institute?
- \_\_\_\_\_ Yes                      \_\_\_\_\_ No                      \_\_\_\_\_ Uncertain
28. If this Institute were held again, would you recommend to a colleague that they attend?
- \_\_\_\_\_ Yes                      \_\_\_\_\_ No                      \_\_\_\_\_ Uncertain

29. How would you rate the value of each of the following aspects of this Institute?

(Please circle ONE for EACH row)

	no opportunity to judge	1	2	3	4	5	very valuable	worthless
a. Scriven on accreditation	NA	1	2	3	4	5		
b. Scriven's initial presentation (Pathway)	NA	1	2	3	4	5		
c. Stufflebeams's initial presentation	NA	1	2	3	4	5		
d. Reinhard's initial presentation (Advocacy teams)	NA	1	2	3	4	5		
e. Scriven's "special topics" presen- tation (goal-free evaluation)	NA	1	2	3	4	5		
f. Stufflebeam's "special topics" pre- sentation (School System evaluation)	NA	1	2	3	4	5		
g. Resource table (materials)	NA	1	2	3	4	5		
h. Informal discussion with peers	NA	1	2	3	4	5		
i. Discussion of participants' evaluation problem (Fri. a.m.)	NA	1	2	3	4	5		
j. General question and answer sessions with staff	NA	1	2	3	4	5		
k. Discussion of workbook examples	NA	1	2	3	4	5		
l. Thursday morning reading session (9-12)	NA	1	2	3	4	5		

30. Please list any aspects of the Institute other than those listed in 29 above which you felt were of considerable value.
31. Please list any criticisms or suggestions you have concerning time allocation for any of the Institute activities or sessions.
32. a. Please list any elements which were missing from this Institute that you feel would be of value in future Institutes of this type.
- b. What would you suggest sacrificing from the present Institute format to make room for new topics or activities?



33. Based on your experience with this Institute, what do you see as the major advantages or disadvantages of the Traveling Institute concept, as compared with the usual AERA annual meeting pre- and postsession?

Major advantages of Traveling Institutes:

Major disadvantages of Traveling Institutes:

34. Please write any additional comments and/or suggestions below or on the reverse side.

1972 AERA Traveling Institutes

Staff Instrument #1

Topic of Institute \_\_\_\_\_ Location \_\_\_\_\_

As part of our evaluation of the AERA Traveling Institutes, we feel it important to obtain your reactions, as directors or staff members, to several aspects of the Institute. We will appreciate your candor in responding.

For each partial statement printed below, please circle the number which best reflects your reaction to that statement.

1. The meeting rooms were:

excellent 1 2 3 4 5 poor

2. The living accommodations were:

excellent 1 2 3 4 5 poor

3. The number of participants was:

too large 1 2 3 4 5 too small

4. The background of the participants (as a group) for the topic of this Institute was:

very adequate 1 2 3 4 5 very inadequate

5. As a group, motivation and interest of the participants appeared to be:

very high 1 2 3 4 5 very low

6. In terms of following your (or the director's) instructions and schedule, participants were:

very cooperative 1 2 3 4 5 very uncooperative

7. The next Traveling Institute on this topic should be:

considerably longer 1 2 3 4 5 considerably shorter

8. For this group of participants, the content presented was:

too easy 1 2 3 4 5 too difficult

too theoretical 1 2 3 4 5 too non-theoretical

very useful 1 2 3 4 5 useless

9. Participants' knowledge and/or skills related to this topic have:

increased considerably 1 2 3 4 5 shown no increase

10. As a facilitator in making arrangements for this Institute, the efforts of AERA Central Office staff were:

very helpful 1 2 3 4 5 not at all helpful

11. Formative evaluation feedback proved:

very helpful 1 2 3 4 5 not at all helpful

12. As a result of formative evaluation feedback you made:

many changes 1 2 3 4 5 no changes

13. Overall, the evaluation procedures were:

not at all disruptive 1 2 3 4 5 very disruptive

14. Overall, your objectives for this Institute were:

attained 1 2 3 4 5 not attained

(Please be as specific as possible in responding to the open-ended questions below.)

15. Now that the Institute is over, what things do you feel went especially well?

16. What areas do you feel are most in need of improvement before next time?

17. Based on your experience with the AERA Traveling Institutes so far, what do you see as their major advantages and disadvantages as compared with the usual AERA pre- and post- sessions?

Advantages of Traveling Institutes:

Disadvantages of Traveling Institutes:

18. Any other comments on ways to improve the Institutes or the procedures for evaluating the Institutes?

Appendix I

Tabulations of Staff Questionnaire

1972 AFRA Traveling Institutes

Staff Instrument #1

Topic of Institute \_\_\_\_\_ Location \_\_\_\_\_

As part of our evaluation of the AFRA Traveling Institutes, we feel it important to obtain your reactions, as directors or staff members, to several aspects of the Institute. We will appreciate your candor in responding.

For each partial statement printed below, please circle the number which best reflects your reaction to that statement.

1. The meeting rooms were:

excellent 1 2 3 4 5 poor  
(2) (1)

2. The living accommodations were:

excellent 1 2 3 4 5 poor  
(3)

3. The number of participants was:

too large 1 2 3 4 5 too small  
(1) (2)

4. The background of the participants (as a group) for the topic of this Institute was:

very adequate 1 2 3 4 5 very inadequate  
(1) (2)

5. As a group, motivation and interest of the participants appeared to be:

very high 1 2 3 4 5 very low  
(2) (1)

6. In terms of following your (or the director's) instructions and schedule, participants were:

very cooperative 1 2 3 4 5 very uncooperative  
(3)

7. The next Traveling Institute on this topic should be:

considerably longer 1 2 3 4 5 considerably shorter  
(3)

8. For this group of participants, the content presented was:

too easy 1 2 3 4 5 too difficult  
(2) (1)

too theoretical 1 2 3 4 5 too non-theoretical  
(3)

very useful 1 2 3 4 5 useless  
(1) (1) (1)

9. Participants' knowledge and/or skills related to this topic have:

increased considerably 1 2 3 4 5 shown no increase  
(1) (2)

10. As a facilitator in making arrangements for this Institute, the efforts of AEKA Central Office staff were:

very helpful 1 2 3 4 5 not at all helpful

(1) (2)

11. Formative evaluation feedback proved:

very helpful 1 2 3 4 5 not at all helpful

(2) (1)

12. As a result of formative evaluation feedback you made:

many changes 1 2 3 4 5 no changes

(1) (1) (1)

13. Overall, the evaluation procedures were:

not at all disruptive 1 2 3 4 5 very disruptive

(1) (2)

14. Overall, your objectives for this Institute were:

attained 1 2 3 4 5 not attained

(2)

(Please be as specific as possible in responding to the open-ended questions below.)

15. Now that the Institute is over, what things do you feel went especially well?

16. What areas do you feel are most in need of improvement before next time?

REPORT OF LONG-TERM EFFECTS OF AERA TRAVELING INSTITUTES  
AS PERCEIVED BY INSTITUTE PARTICIPANTS  
(December, 1973)

Marilyn Averill

Laboratory of Educational Research  
University of Colorado



A questionnaire concerned with possible long-term benefits obtained from traveling institutes was sent to 138 people. (A copy of the questionnaire is in Appendix A.) This group consisted of all participants at the first six traveling institutes (2 Bayesian Statistics, 3 Alternative Conceptions of Evaluation, 1 Performance Based Teacher Education). This report summarizes responses to this questionnaire.

Returns were received from 96 respondents; of these, three referred to later institutes (the respondent having attended more than one traveling institute) and were not included in the data analysis. Four more questionnaires were returned as undeliverable, and three were returned after all analyses had been completed. Due to time constraints and the high rate of returns (70%), there was no follow-up mailing.

### Data Analyses

All analyses were based on the data from 86 questionnaires (62% of total) and included frequency counts, means, standard deviations, and contingency tables.

The questionnaire can be divided into two sections:

1. items recording demographic data, and
2. items concerned with professional growth resulting from attendance at the Institute.

## Description of the Respondents

Questions were included concerning employing institutions (Item 1) primary professional role (Item 2), percentage of professional time spent in various activities (Item 3), and AERA divisional membership (Item 4). Frequency counts of responses to Items 1, 2, and 4, and means for Item 3 are included in Appendix A.

A majority (53, or 62%) of the respondents are employed in colleges or universities; no other employing institution exceeds a frequency of 7 (8%). The most frequent professional role was that of teacher (32, or 37%), followed by evaluator (16, or 19%), researcher (14, or 16%), and administrator (12, or 14%). Portions of professional time spent in various activities followed a similar pattern, with the greatest amount of time spent in instruction ( $\bar{X} = 31\%$ ). AERA divisional memberships were spread across all divisions, but the largest number of respondents (52) were members of Division D, Measurement and Research Methodology.

## Evaluation Results

Items 5, 6, 7, and 8 question the extent to which the respondent feels he has increased professional proficiencies as a result of the institute, or has been able to use the content of the institute in his professional activities. Means and standard deviations of responses to this item are presented in Table 2.

Responses to these items were moderately negative with means varying from 3.90, concerning use of the content of the institute in the preparation of professional papers, to 3.06, concerning the increment in

professional skills resulting from institute attendance. Negative responses seem to occur heavily in a few institutes; the specific institute varies across questions, although Performance Based Teacher Education appears consistently to draw more negative responses than either of the other two topics.

Question 9 asks whether the respondent would now choose again to attend the institute. A majority (54, or 63%) indicated that they would again choose to attend, 19 (22%) said they would not, and 10 (12%) were undecided.

Contingency tables were constructed to examine the relationship between institute attended and responses to questions 5 through 9. These tables appear in Appendix B.

Only fourteen people responded to the open-ended question asking for other useful skills and knowledge acquired at the institute they attended. The only response occurring more than once was given by 10 participants, who stated that although they have not yet had an opportunity to use their new skills, they do feel that the institute gave them knowledge and skills which they may be able to apply at a later time.

### Summary

Participant responses to the first six institutes were in general slightly negative. It appears that results would be somewhat more positive if the data from the Performance Based Teacher Education institute were excluded from the analysis. However, 63% of all respondents indicated that, if given the opportunity, they would again choose to participate in the traveling institute.

Appendix A

Questionnaire, with item response frequencies, means and standard deviations.

AMERICAN EDUCATIONAL  
RESEARCH ASSOCIATION

Dear Participant:

The AERA Research Training Committee is evaluating the 1972-73 series of Traveling Institutes. Part of this evaluation involves a follow-up for all Institute participants to survey your long-term opinions about the Institute.

We would appreciate it if you would take a few moments to complete and return the following questionnaire.

Evaluation of AERA Traveling Institute

Directions: Please read each question carefully and be completely candid in your responses. Your name will not be associated with your responses in any way.

Name of the Institute you attended: \_\_\_\_\_

Location of the Institute you attended: \_\_\_\_\_

1. Your primary employment is presently in a: (check ONE)

- 53 College or University
- 7 Public School System
- 5 Educational R & D Center
- 3 Regional Educational Laboratory
- 3 Federal Government
- 4 State Department of Education
- 3 I am presently a student
- 5 Other (please specify) \_\_\_\_\_
- 3 Blank

2. Your primary role at your employing institution is that of: (Check the ONE that is most applicable)

- 32 Teacher
- 12 Administrator
- 14 Researcher
- 16 Evaluator
- 2 Developer
- 1 Supervisor
- 2 Student
- 4 Other (please specify) \_\_\_\_\_
- 3 Blank

3. What portion or your professional time do you spend in each of the following activities: (Means)

Instruction 31 % Administration 17 % Student (formally enrolled) 3 %  
Development or Dissemination 9 % Research or Evaluation 36 %  
Other ( \_\_\_\_\_ ) 5 %



4. Please check the AERA Division(s) of which you are presently a member:  
(check ANY that apply)

10 A (Administration)  
25 B (Curriculum and Objectives)  
26 C (Learning and Instruction)  
52 D (Measurement and Research Methodology)  
5 E (Counseling and Human Development)  
1 F (History and Historiography)  
6 G (Social Context of Education)  
22 H (School Evaluation and Program Development)  
5 I I am a student member of AERA  
12 J I am not presently a member of AERA

5. To what extent do you feel that attendance at the Institute has increased your professional skills?

to a great extent 1 2 3 4 5 not at all

$\bar{X} = 3.06$   $S_x = 1.22$

6. To what extent have you utilized the knowledge you acquired at the Research Training Institute you attended?

to a great extent 1 2 3 4 5 not at all

$\bar{X} = 3.23$   $S_x = 1.24$

7. How professionally valuable would you rate the contacts you made at the Institute?

very valuable 1 2 3 4 5 worthless

$\bar{X} = 3.19$   $S_x = 1.13$

8. How much has the content of the Institute aided you in:

- a. the preparation of professional papers?

very much 1 2 3 4 5 not at all

$\bar{X} = 3.90$   $S_x = 1.29$

- b. the conduct of professional research?

very much 1 2 3 4 5 not at all

$\bar{X} = 3.33$   $S_x = 1.31$

- c. the preparation of courses taught?

very much 1 2 3 4 5 not at all

$\bar{X} = 3.53$   $S_x = 1.47$

On the back of this page, please list other areas in which you feel skills or knowledge acquired at the Institute have been useful to you.

9. If you were able to choose over again, would you have attended this Institute?

54 Yes 19 No 10 Uncertain 3 Blank

THANK YOU FOR YOUR COOPERATION

**Appendix B**  
**Contingency tables.**

Table 1

Institute attended vs. responses to Item 5, "To what extent do you feel that attendance at the Institute has increased your professional skills?"

	To a great extent				Not at all	Total
	1	2	3	4	5	
Bayesian (Amherst)	0 (0)	3 (25)	4 (33)	4 (33)	1 (8)	12 (99)
Bayesian (Tampa)	3 (18)	7 (41)	3 (18)	3 (18)	1 (6)	17 (101)
Evaluation (Portland)	0 (0)	3 (23)	6 (46)	4 (31)	0 (0)	13 (100)
Evaluation (Tampa)	4 (20)	6 (30)	5 (25)	5 (25)	0 (0)	26 (100)
Evaluation (Tucson)	1 (10)	3 (30)	2 (20)	0 (0)	4 (40)	16 (100)
Teacher Education (Boston)	0 (0)	1 (8)	1 (8)	4 (33)	6 (50)	12 (99)
						84

Row percentages appear in parentheses.



Table 2

Institute attended vs. responses to Item 6, "To what extent have you utilized the knowledge you acquired at the Research Training Institute you attended?"

	To a great extent 1	2	3	4	Not at all 5	Total
Bayesian (Amherst)	0 (0)	1 (19)	1 (8)	7 (58)	3 (25)	12 (99)
Bayesian (Tampa)	1 (6)	5 (29)	5 (29)	4 (24)	2 (12)	17 (100)
Evaluation (Portland)	0 (0)	5 (39)	4 (31)	3 (23)	1 (8)	13 (101)
Evaluation (Tampa)	6 (32)	3 (16)	6 (32)	4 (21)	0 (0)	19 (101)
Evaluation (Tucson)	0 (0)	3 (30)	3 (30)	0 (0)	4 (40)	10 (100)
Teacher Education (Boston)	1 (9)	0 (0)	0 (0)	6 (55)	4 (36)	11 (100)
						82

Row percentages appear in parentheses.

Table 3

Institute attended vs. responses to Item 7, "How professionally valuable would you rate the contacts you made at the Institute?"

	Very valuable 1	2	3	4	Worthless 5	Total
Bayesian (Amherst)	1 (8)	1 (8)	2 (17)	6 (50)	2 (17)	12 (100)
Bayesian (Tampa)	1 (6)	6 (35)	4 (24)	4 (24)	2 (12)	17 (101)
Evaluation (Portland)	0 (0)	3 (23)	4 (31)	5 (39)	1 (8)	13 (101)
Evaluation (Tampa)	3 (15)	2 (10)	11 (55)	3 (15)	1 (5)	20 (100)
Evaluation (Tucson)	2 (20)	1 (10)	2 (20)	3 (30)	2 (20)	10 (100)
Teacher Education (Boston)	1 (8)	0 (0)	6 (50)	3 (25)	2 (17)	12 (100)
						84

Row percentages appear in parentheses.

Table 4

Institute attended vs. responses to Item 8a, "How much has the content of the Institute aided you in the preparation of professional papers?"

	Very much 1	2	3	4	Not at all 5	Total
Bayesian (Amherst)	0 (0)	1 (8)	1 (8)	1 (8)	9 (75)	12 (99)
Bayesian (Tampa)	1 (6)	3 (18)	2 (12)	5 (29)	6 (35)	17 (100)
Evaluation (Portland)	0 (0)	3 (23)	1 (8)	1 (8)	8 (62)	13 (101)
Evaluation (Tampa)	1 (5)	7 (35)	4 (20)	4 (20)	4 (20)	20 (100)
Evaluation (Tucson)	1 (11)	0 (0)	2 (22)	0 (0)	6 (67)	9 (100)
Teacher Education (Boston)	0 (0)	1 (8)	0 (0)	3 (25)	8 (68)	12 (10)
						83

Row percentages appear in parentheses.

Table 5

Institute attended vs. responses to Item 8b, "How much has the content of the Institute aided you in the conduct of professional research?"

	Very much 1	2	3	4	Not at all 5	Total
Bayesian (Amherst)	2 (17)	0 (0)	0 (0)	4 (33)	6 (50)	12 (100)
Bayesian (Tampa)	3 (18)	3 (18)	3 (18)	4 (24)	4 (24)	17 (102)
Evaluation (Portland)	0 (0)	0 (0)	8 (62)	4 (31)	1 (8)	13 (101)
Evaluation (Tampa)	3 (15)	4 (35)	6 (30)	3 (15)	1 (5)	20 (100)
Evaluation (Tucson)	1 (10)	3 (30)	2 (20)	0 (0)	4 (40)	10 (100)
Teacher Education (Boston)	0 (0)	1 (8)	3 (25)	3 (25)	5 (42)	12 (100)
						84

Row percentages are in parentheses.

Table 6

Institute attended vs. responses to Item 8c, "How much has the content of the Institute aided you in the preparation of courses taught?"

	Very much 1	2	3	4	Not at all 5	Total
Bayesian (Amherst)	1 (10)	0 (0)	1 (10)	3 (30)	5 (50)	10 (100)
Bayesian (Tampa)	2 (13)	4 (25)	3 (19)	3 (19)	4 (25)	16 (101)
Evaluation (Portland)	0 (0)	4 (33)	2 (17)	1 (8)	5 (42)	12 (100)
Evaluation (Tampa)	2 (11)	6 (32)	3 (16)	3 (16)	5 (26)	19 (101)
Evaluation (Tucson)	2 (22)	1 (11)	2 (22)	0 (0)	4 (44)	9 (99)
Teacher Education (Boston)	0 (0)	1 (8)	1 (8)	1 (8)	9 (75)	12 (99)
						79

Row percentages are in parentheses.

Table 7

Institute attended vs. responses to Item 9, "If you were able to choose over again, would you have attended this Institute."

	Yes	No	Uncertain	Total
Bayesian (Amherst)	7 (58)	2 (17)	3 (25)	12 (100)
Bayesian (Tampa)	14 (92)	2 (12)	1 (6)	17 (100)
Evaluation (Portland)	9 (69)	2 (15)	2 (15)	13 (99)
Evaluation (Tampa)	19 (90)	2 (10)	0 (0)	20 (100)
Evaluation (Tucson)	5 (50)	1 (10)	4 (40)	10 (100)
Teacher Education (Boston)	1 (9)	1 (9)	9 (82)	11 (100)
				83

Row percentages appear in parentheses.

Evaluation of AERA Traveling Training Institute

"Research in Performance-Based Teacher Education"

Directed by

Frederick McDonald  
Educational Testing Service

May 2 - 4, 1973

Boston, Massachusetts

The first Traveling Training Institute on "Research in Performance Based Teacher Education" was conducted in Boston, Massachusetts, on May 2, 3 and 4, 1973. Twenty-five participants attended the three day institute directed by Frederick McDonald, ETS, New Jersey, with John Krumboltz, Marlene Katz and David Potter as instructional staff members.

Four participant instruments were administered pre and/or post according to the evaluation design employed for previous research training institutes. The cognitive and affective instruments were initially drafted by AERA's central office; the final version of the instruments was the result of changes made by the instructional staff. The most significant modification in the instruments produced a cognitive essay test that required staff scoring. Due to the cancellation of the session (discussed later) these instruments were not scored and therefore the cognitive gain scores are not available for this institute. In addition, the cancellation obviously precluded the use of the evaluation report in a formative sense to improve subsequent presentation of the Institute. Therefore, this report is presented in an abbreviated form.

Participant reactions to item numbers 6, 12, 19, 24, and 28 in tables 3 & 4 highlight the level of dissatisfaction in this training institute. An analysis of these and related questions, coupled with the generally negative responses to open-ended questions provided ample evidence for the Association's Standing Committee on Research Training to unanimously agree to withdraw sponsorship of subsequent occurrences of this Institute.

In the opinion of AERA's designated on-site evaluator, several circumstances contributed to the demise of this institute. An overriding level of frustration was



generated by the gap between participant expectations and what the Institute was able to deliver. This was compounded by the heavy emphasis, (approximately 70-80% of the structured class time) in small group discussions and activities. Instructors sitting in these sessions generally played the role of an observer, which resulted in participants spending time sharing their knowledge and experience among themselves. The lack of closure to these small group sessions and the limited opportunity for questions to be directed to the instructional staff, contributed to a heightened level of frustration.

The fact that the director of the institute was called home to attend to a personal emergency for one day of the work shop and the invited guest lecturer misunderstood the day he was to appear and therefore did not attend, further handicapped the success of this training institute.

The staff of this institute planned a detailed schedule of activities after giving consideration to participant input from the application form. However, upon the advice of the on-site evaluator and a hastily-devised participant reaction form, a variety of changes was instituted. Most notably was an attempt to include more content-orientated lectures. However, this resulted in a great amount of repetition among the speakers. It became obvious that in spite of the staff's willingness to institute changes, they were not in a position to meet the varied expectations and objectives of the participants.

The tables which follow present the relevant data available from this Institute.

Table I

Description of Participants

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---

<u>Employing Institution</u>					
College or University	Regional Center or Lab.	Federal or State Dept. of Education	Student	Other	
14	1	3	2	3	

---

<u>Primary Professional Role</u>					
Teacher	Administrator	Researcher	Evaluator or Developer	Student	Other
9	5	2	2	2	1

---

<u>Academic Degrees</u>	
Master's	Doctorate
5	17

---

<u>Membership in Divisions of AERA</u>		
(B) Curriculum & Objectives	(C) Learning & Instruction	(D) Measurement & Research Methodology
8	10	6
(E) Counseling & Human Development	(G) Social Context of Education	
1	1	
( ) Not presently a member of AERA	( ) Student	
0	1	

---

<u>Reasons for Attending the Institute</u>		
Desire to gain new skills or knowledge related to the topic.	Desire to improve existing skills or knowledge related to the topic.	Desire to discuss problems related to the topic with experts.
8	11	3

---

Prior Experience

No Experience	Limited Experience	Considerable Experience	Great Amount Experience
0	15	8	1

---

Distance of home from Institute site

less than 50 miles	50-100 miles	100-500 miles	500-1,000 miles	more than 1000 miles
4	2	9	6	3

---

Table 2

Tabulation of Participant Responses to Critique  
Items Relating to Pre-Institute Planning

Item						x
1. How important do you feel the topic of this Institute is to educational research and/or evaluation?						
very important	1	2	3	4	5	very unimportant
	(17)	(5)	(0)	(1)	(0)	
						1.35
2. How important do you feel the topic of this Institute is to educational practice?						
very important	1	2	3	4	5	very unimportant
	(17)	(5)	(1)	(0)	(0)	
						1.30
4. Leaving aside the quality of instruction for the moment do you think the <u>topic</u> treated in this Institute should be treated again in future Institutes?						
definitely	1	2	3	4	5	definitely not
	(14)	(7)	(1)	(0)	(0)	
						1.41
18. In your opinion, the staff members were in general:						
very well-qualified	1	2	3	4	5	very unqualified
	(2)	(2)	(6)	(8)	(4)	
						3.45
23. The meeting room facilities for the Institute were:						
excellent	1	2	3	4	5	poor
	(2)	(4)	(9)	(6)	(2)	
						3.09
25. Considering what you have learned by attending this Institute (or any other benefits you have received from attendance), the tuition fee was:						
considerably too low	1	2	3	4	5	considerably too high
	(0)	(0)	(3)	(7)	(13)	
						4.43

Note: Frequencies are shown in parentheses.

Table 3

Tabulation of Participant Responses to Items  
on Conduct of the Institute

Item						-	x
3. How relevant was the content of the Institute to the topic that was advertised?							
highly relevant	1	2	3	4	5	not at all	3.61
	(1)	(3)	(7)	(5)	(7)	relevant	
5. The staff's objectives for this Institute were:							
very clear to me	1	2	3	4	5	very unclear to me	4.00
	(1)	(2)	(3)	(7)	(10)		
6. The planning and organization of this Institute was:							4.52
excellent	1	2	3	4	5	poor	
	(0)	(1)	(3)	(2)	(17)		
7. Overall, was the Institute long enough to cover the topic adequately?							
considerably too long	1	2	3	4	5	considerably too short	3.36
	(0)	(0)	(16)	(4)	(2)		
8. As a rule, daily sessions were:							
considerably too long	1	2	3	4	5	considerably too short	3.05
	(0)	(3)	(16)	(2)	(1)		
9. Do you feel all necessary prerequisites were clearly stated in information you received prior to the Institute? (check ONE)							
<u>5</u> Yes, they were clearly stated							
<u>7</u> No, they were ambiguous							
<u>11</u> No, prerequisites were listed							
10. Did you receive advance reading materials from the Institute director(s) early enough to read them prior to the Institute? (check ONE)							
<u>1</u> Yes, materials came early enough							
<u>0</u> No, materials came too late							
<u>22</u> No materials were sent							
11. Do you think you entered the Institute with the appropriate prerequisites or prior knowledge to make what you learned there of value to you?							2.71
I had more than enough preparation	1	2	3	4	5	I was seriously lacking in preparation	1.70
	(15)	(5)	(0)	(1)	(2)		

Item-  
x

12. In terms of your background and preparation for the Institute, the content of this Institute was:										
excellent	1	2	3	4	5	poor				1.68
	(13)	(3)	(6)	(0)	(0)					
13. Overall, the quality of instruction in this Institute was:										
excellent	1	2	3	4	5	poor				4.08
	(1)	(0)	(5)	(7)	(10)					
14. The instruction was generally:										
too lecture-oriented		1	2	3	4	5	too discussion-oriented			3.62
		(1)	(3)	(5)	(6)	(6)				
very interesting		1	2	3	4	5	very uninteresting			3.72
		(0)	(1)	(9)	(7)	(5)				
very informative		1	2	3	4	5	very uninformative			4.04
		(0)	(1)	(6)	(7)	(9)				
15. Opportunities for asking questions were:										
sufficient		1	2	3	4	5	insufficient			2.48
		(7)	(6)	(4)	(4)	(2)				
opportunities for studying were:										
sufficient		1	2	3	4	5	insufficient			3.81
		(2)	(0)	(4)	(9)	(6)				
17. The amount of work the staff required of you was:										
far too much		1	2	3	4	5	far too little			3.50
		(1)	(2)	(9)	(5)	(5)				
18. Opportunities for you to interact with the staff with respect to problems in your own work which relate to the topic were:										
sufficient		1	2	3	4	5	insufficient			3.83
		(1)	(2)	(7)	(3)	(10)				
19. In your opinion, the staff members were in general:										
very well-prepared		1	2	3	4	5	very unprepared			3.45
		(2)	(2)	(6)	(8)	(4)				

<u>Item</u>							-
							x
20. Did the staff seek your reactions to their instructional procedures, scheduling, etc. <u>during</u> the Institute?							
frequently	1	2	3	4	5	never	
	(3)	(3)	(11)	(5)	(1)		2.91
21. Did it appear to you that your reactions led to improvement?							
frequently	1	2	3	4	5	never	
	(1)	(3)	(4)	(10)	(5)		3.65
22. The formal evaluation of this Institute by the "outside evaluation" (e.g., those instruments) was:							
not at all dis-	1	2	3	4	5	very dis-	
ruptive	(11)	(2)	(6)	(1)	(1)	ruptive	2.00

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Note: Frequencies are shown in parentheses.

Table 4

Tabulation of Participant Responses to Items on the  
General Evaluation of the Institute

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<u>Item</u>						-	
						x	
24. Do you anticipate that what you have learned from the Institute will be useful to you in your own work?							
definitely	1	2	3	4	5	definitely not	3.36
	(2)	(2)	(7)	(8)	(3)		
28. If you were able to choose over again, would you attend this Institute?							
(3) Yes				(18) No			(2) Uncertain
29. If this Institute were held again, would you recommend to a colleague that they attend?							
(4) Yes				(16) No			(3) Uncertain

---

Note: Frequencies are shown in parentheses



EVALUATION OF AERA TRAVELING INSTITUTE  
"Alternative Conceptions of Evaluation"

Berkeley, California

July 5-6, 1973

Robert M. Stonehill

Laboratory of Educational Research  
University of Colorado

This report is an evaluation of the fourth "Alternative Conceptions of Evaluation" Traveling Institute presented by Daniel Stufflebeam, Michael Scriven and Diane Reinhard in Berkeley, California on July 5 and 6, 1973. Descriptions of the evaluation design and of general Institute organization are available in detail in the preceding evaluation reports of this series.

### Institute Participants

Seventeen participants attended the Institute, three of whom left early and did not fill out final evaluation forms, and one of whom filled out only Participant Instrument #1 (the participant characteristic information instrument). Nine participants represented institutes of higher education, although all categories except State Department of Education were represented. Administrator was the most prevalent primary role, with only one researcher and two evaluators represented. Twelve of the participants held Doctorate degrees, while sixteen of the seventeen held degrees above a B.A. Sixteen of the seventeen have had previous evaluative experience, with ten reporting considerable or a great amount of experience with evaluation.

As in all previous Institutes, many participants travelled great distances to attend; ten participants travelled more than 1000 miles to attend, and only one person (a graduate student at Berkeley) came from the Bay Area. This seems to indicate, as with previous Traveling Institutes, that the convenience of a date seems more important than the location of the Institute.

See Appendix 1 for a copy of Participant Instrument #1, along with a frequency count of participant responses.

### Conduct of the Institute

The first meeting of the Institute was scheduled for 8:00 Thursday morning but did not begin until 9:30. During this time the preliminary evaluation instruments were distributed; everyone completed Participant Instrument #1, while a quasi-randomly selected half filled out Participant Instruments #2 and #3 (self-report of perceived knowledge, the cognitive instrument and the affective instrument, respectively). Only one person had not received advance materials and this was due to late registration for the Institute on his part. A planning session had taken place the night before among the Institute's directors, and a resource table had been set up and the agenda finalized.

Lists were secured from the participants of their definition of evaluation, their favorite evaluation problems, and their justification for using evaluation. These were to be commented on at some later time by the directors.

See Appendix 2, the AERA Training Institute Tentative Agenda, which was followed fairly closely, with the exception of the evening session of individual

reading and use of the reference table.

Scriven spoke first on Pathway Evaluation (though several participants did not recognize it as such as indicated by their responses on Participant Instrument #4), and Stufflebeam followed with a discussion of the CIPP model. There were some complaints that written handouts would greatly facilitate the presentation, as a lot of time was spent in copying down information presented by the directors. The situation was somewhat rectified the next day when Stufflebeam had XEROXed copies made of his presentation for people to follow along with rather than to scribble down.

The meeting adjourned for lunch at 12:30, and reconvened at 2:15 with a presentation by Diane Reinhard on advocate teams. Scriven followed with a discussion on Goal-free evaluation. Stufflebeam spoke briefly about evaluation problems. At 4:50 the Institute ended for the day, with about 14 people lasting through the entire first day's meeting.

Thirteen people were present at 9:00 on Friday morning, though the Institute didn't start until 9:45 with Scriven's presentation of the product checklist. There was no use of handouts at this time. At 11:40 Stufflebeam lead a discussion of evaluation problems posed the previous day by the participants. Lunch was from 12:30 until 1:40, at which time the directors all discussed participants' individual evaluation problems. Between ten and twelve participants attended the final session. The Institute ended at 3:00, and the final evaluation of the Institute ended at 3:50.

### Evaluation Results

The design paradigm followed in evaluating the Berkeley Institute was identical to that used in the Portland and Tucson evaluations, and will not be discussed again here.

An analysis of variance performed between the two posttest groups (pretested and unpretested) yielded no significant difference between groups either on the affective (Participant Instrument #3) or the cognitive (Participant Instrument #2) instrument. Note that a higher score is desirable on the affective instrument, while a lower score is desirable on the cognitive instrument. This should be kept in mind while examining the ANOVA tables with regard to group means. (See Appendix 4)

An analysis of variance performed between the pretest and the posttest for the unpretested group also yielded no significant difference, either on the affective or cognitive measures.

A repeated measures design for analysis of variance was also performed a pretest - posttest comparison on the same person. There was a significant difference between the pre- and posttests on the cognitive instrument, with

ANALYSIS OF VARIANCE TABLES

SOURCE OF VARIATION	SUM OF SQUARES	DF	MEAN SQUARE	
BETWEEN	18.8929	1	18.8929	<u>PRETEST (AFFECTIVE, PRE-TESTED GROUP)</u> x <u>POSTTEST (AFFECTIVE, NON-PRETESTED GROUP)</u>
WITHIN	370.8571	14	26.4898	
TOTAL	389.7500	15		F = .7132

PRETEST GROUP: n = 9,  $\bar{X} = 46.67$   
 NON-PRETEST GROUP: n = 7,  $\bar{X} = 48.86$

SOURCE OF VARIATION	SUM OF SQUARES	DF	MEAN SQUARE	
BETWEEN	89.2857	1	89.2857	<u>PRETEST (COGNITIVE, PRE-TESTED GROUP)</u> x <u>POSTTEST (COGNITIVE, NON-PRETESTED GROUP)</u>
WITHIN	851.7143	14	60.8367	
TOTAL	941.0000	15		F = 1.4676

PRETEST GROUP: n = 9,  $\bar{X} = 34.3$   
 NON-PRETEST GROUP: n = 7,  $\bar{X} = 29.6$

SOURCE OF VARIATION	SUM OF SQUARES	DF	MEAN SQUARE	
BETWEEN	12.0714	1	12.0714	<u>POSTTEST (AFFECTIVE, PRETESTED GROUP)</u> x <u>POSTTEST (AFFECTIVE, NON-PRETESTED GROUP)</u>
WITHIN	332.8571	12	27.7381	
TOTAL	344.9286	13		F = .4352

PRETEST GROUP: n = 7,  $\bar{X} = 47.0$   
 NON-PRETEST GROUP: n = 7,  $\bar{X} = 48.9$

SOURCE OF VARIATION	SUM OF SQUARES	DF	MEAN SQUARE	
BETWEEN	16.0714	1	16.0714	<u>POSTTEST (COGNITIVE, PRETESTED GROUP)</u> x <u>POSTTEST (COGNITIVE, NON-PRETESTED GROUP)</u>
WITHIN	459.4286	12	38.2857	
TOTAL	475.5000	13		F = .4198

PRETEST GROUP: n = 7,  $\bar{X} = 27.4$   
 NON-PRETEST GROUP: n = 7,  $\bar{X} = 29.6$

ANALYSIS OF VARIANCE FOR REPEATED MEASURES

Table 1. Pretest vs. Posttest (pretested group only) -Affective instrument

SOURCE OF VARIATION	SUM OF SQUARES	DF	MEAN SQUARE	F
S (SUBJECTS)	345.0000	6	57.5000	8.85**
M (MEASURES)	3.5000	1	3.5000	.54
SM (ERROR)	39.0000	6	6.5000	

Pretest:  $n = 7, \bar{X} = 46.0$

Posttest:  $n = 7, \bar{X} = 47.0$

Table 2. Pretest vs. Posttest (pretested group only) -Cognitive instrument

SOURCE OF VARIATION	SUM OF SQUARES	DF	MEAN SQUARE	F
S (SUBJECTS)	882.8571	6	147.1429	15.39**
M (MEASURES)	77.7857	1	77.7857	8.09*
SM (ERROR)	57.7143	6	9.6190	

Pretest:  $n = 7, \bar{X} = 32.1$

Posttest:  $n = 7, \bar{X} = 27.4$

\*  $p < .05$

\*\*  $p < .01$

the posttest exhibiting a better perception of the participant's knowledge of evaluation. This was significant at the .05 level. There was no significant difference between pre- and posttest on the affective instrument in the repeated measures analysis. In both cases, there was a significant difference (beyond the .01 level) among subjects in the repeated measures design.

Responses to the critique form were generally much more positive than (#4) those for the Tucson Institute. Frequencies of responses, as well as appropriate means and standard deviations appear in Appendix 3.

In general, participants felt the staff members were very well-qualified and very well-prepared. The topic was held to be an important one to both educational research and to educational practice.

Total expenses for the Institute ranged from \$0 to \$600, with a mean of \$348. Personal expenses (those not covered by the employing institution) ranged from \$0 to \$475, with a mean of \$116. This is considerably higher than the reported personal expenses for the Tucson Institute, and people generally felt that the tuition fee was too high.

#### Conduct of the Institute

As with the other Institutes, there is a wide variety of responses within categories, but the evaluation in general is superior to that of the Tucson Institute. The planning and organization were rated good, and the content of the Institute was rated as relevant to the topic advertised. The quality of instruction was rated very good. Opportunities for asking questions and to interact with the staff were rated sufficient. However, most people felt that the amount of work required of the participant was too little. Ten people said they would attend the Institute if they had to choose over, while only one said he would not. Daily sessions were found to be the right length, while people felt the Institute was too short to cover the topic adequately.

Summary and Recommendations

The evaluation in general was quite favorable, much more so than that of the Tucson Institute. Most of the suggestions made by the Tucson evaluation were implemented for the Berkeley Institute, among them: All staff members arrived on time and stayed until the conclusion of the Institute, all but one participant received their advance materials, and a heavy emphasis was placed on discussion.

There was still some criticism of the title of the Institute from those participants who expected more of a debate format between Scriven and Stufflebeam. It seems to this evaluator that any stated objectives of the Institute are secondary (or tertiary), since most of the participants he spoke with were primarily interested in listening to Scriven and Stufflebeam talk and interact with one another and with the participants. No one the evaluator spoke to was seriously disappointed in this respect.

More work should be expected of the participants.

Much of the lecture content can be handed out as advance material before the lecture to avoid the predilection with copying rather than comprehending material.

Participants should be told in advance that they may have an opportunity to present evaluation problems for the consideration of the group, and thus be better prepared to offer examples for discussion.

Summary of Open-ended Questions

Additional aspects of the Institute which were of value:

- Discussion of product evaluation
- Openness of staff to contact with participants after Institute is over
- Two days forced attention to evaluation problems

Elements missing from Institute which would be of future value in Institutes of this type:

- More targeted on major evaluation issues or topics
- More case studies and perhaps evaluation simulation or game
- Problem solving sessions

Elements you would suggest sacrificing from present format to make room for new topics:

- General background and descriptive material that should have been disseminated prior to Institute
- Long presentation for specific instances
- Theoretical discussions brought forth by participants
- Free time other than informal short breaks

Criticisms or suggestions concerning time allocation for Institute activities:

- Not enough time to treat any topic in depth
- Too much product evaluation
- More on actual techniques and less on history of participants
- More time on individual problems, varied format

Role playing, experiential methods, simulations  
Schedule should have more variety

Major advantages of traveling institutes:

Convenient, away from office  
Short enough  
Opportunities for in-depth study  
Choice of dates & locations  
Second chance to attend one depending on feedback received from earlier Institutes  
Small group dynamics and interactions  
Time to digest information before experiencing overload of information like at  
AERA

Major disadvantages of traveling institutes:

Cost is high for special trips  
Time not sufficient  
Time away from job



## 1972 AERA Traveling Institutes

## Participant Instrument #1

1. Topic of the Institute you are attending:  
Alternative Conceptions of Evaluation
- 
2. Location of the Institute you are attending (state):  
Berkeley, Calif.
- 
3. You are presently employed in a: (check the ONE that is most applicable)
- College or University (9)  
 Public School System (2)  
 Educational R&D Center (1)  
 Regional Laboratory (2)  
 Federal Government (2)  
 State Department of Education  
 I am presently a student (1)  
 Other (please specify) \_\_\_\_\_
4. Your primary role at your employing institution is that of: (check the ONE that is most applicable)
- teacher (3)  
 administrator (7)  
 researcher (1)  
 evaluator (2)  
 developer (3)  
 supervisor  
 student (1)  
 other (please specify) \_\_\_\_\_
5. What academic degrees do you hold? (check the most advanced degree held)
- bachelor's (1)  
 master's (4)  
 doctorate (12)  
 other (please specify) \_\_\_\_\_
6. Please check the Division(s) of AERA of which you are presently a member.
- A (Administration)  
 B (Curriculum and Objectives) (5)  
 C (Learning and Instruction) (3)  
 D (Measurement and Research Methodology) (7)  
 E (Counseling and Human Development) (2)  
 F (History and Historiography)  
 G (Social Context of Education) (2)  
 H (School Evaluation and Program Development) (5)  
 Student Member  
 I am not presently a member of AERA (7)

7. How did you first learn about this Institute? (check ONE)

- professional publication (please specify) Educational Researcher (9)  
       colleague or student (6)  
       mailed notice  
       other (please specify) (2) \_\_\_\_\_

8. What are your primary reasons for attending this session? (check ONE)

- desire to gain new skills or knowledge related to the topic (6)  
       desire to improve existing skills or knowledge related to the topic (5)  
       desire to discuss problems related to the topic with experts (6)  
       other (please specify) \_\_\_\_\_

9. What prior experience have you had with the topic of this Institute?  
 (check one)

- no experience whatsoever (1)  
       have had limited experience (e.g., have read a little about the topic) (6)  
       have had considerable experience (e.g., took a class on the topic,  
 or worked for several months on activities where the topic was used) (7)  
       great amount of experience (e.g., have used the topic for several  
 years, or have taken several classes on the topic) (3)

10. If this session were not available now, but was offered instead as a session for a similar amount of time either immediately before or after the AERA convention, would you choose to attend the session there? (Assume registration fees, etc., remained constant)

- (10) Yes      (6) No

11. Did you attend the AERA Convention in New Orleans this year?

- (6) Yes      (10) No

12. Is the date selected for the Institute convenient for you?

- (15) Yes      (2) No

13. Is the site selected for the Institute convenient for you?

- (12) Yes      (5) No

14. How far is your home from the site of this Institute? (check ONE)

- (1) less than 50 miles  
(2) 50-100 miles  
(2) 101-500 miles  
(2) 501-1000 miles  
(10) more than 1,000 miles

AERA TRAINING INSTITUTE  
 TENTATIVE AGENDA  
 July 5 - 6, 1973  
 Berkeley, California

July 5, 1973

8:30 - 9:30	Registration - Evaluation	Diane Reinhard
9:30 - 11:30	2. Pathway Evaluation Problems, CIPP Model Discussion	Michael Scriven Daniel Stufflebeam
11:30 - 1:00	Lunch	
1:00 - 3:00	Advocate Team Technique Goal-Free Evaluation Discussion	Diane Reinhard Michael Scriven
3:00 - 4:30	Introduction to Jim Sanders' Material on Evaluation Problems	Michael Scriven Daniel Stufflebeam
4:30 - 5:00 5:00 - 6:00	Construct questions to hand in Individual Reading (use of reference table)	Diane Reinhard
6:00 - 8:30	Optional Group Dinner ?	
8:30 - 10:00	Individual Reading ( use of reference table)	Diane Reinhard

July 6, 1973

9:00 - 11:00	Special Topic Presentations based on questions  Discussion	Michael Scriven Daniel Stufflebeam
11:00 - 12:00	Participants' Individual Problems	Michael Scriven Daniel Stufflebeam
12:00 - 1:00	Lunch	
1:00 - 2:00	Participants' Individual Problems	Michael Scriven Daniel Stufflebeam
2:00 - 3:30	Wrap-up and General Discussion	Michael Scriven Daniel Stufflebeam
3:30 - 4:00	Final Evaluation	Robert Stonehill

## AERA Traveling Institutes

## Participant Instrument #4

Directions: This evaluation form is administered by the AERA Research Training Committee or persons assisting them with this evaluation. Completed forms will be returned directly to the Committee by the person administering this form. After the data have been tabulated, the instructional staff of your session may request a summary. The principal purpose of this form is to assist in the planning of subsequent traveling institutes. Therefore, be completely candid in your responses. Do not sign your name.

Topic of this Institute ALTERNATIVE CONCEPTIONS OF EVALUATION

Location of this Institute BERKELEY, CALIF.

For each question or partial statement below, please circle the number which best reflects your reaction.

- $\bar{X} = 1.14$  1. How important do you feel the topic of this Institute is to educational research  
 $s = .36$  and/or evaluation?  
 very important ( 1 2 3 4 5 ) very unimportant  
 (12 2 )
- $\bar{X} = 1.35$  2. How important do you feel the topic of this Institute is to educational practice?  
 $s = .63$  very important ( 1 2 3 4 5 ) very unimportant  
 (10 3 1 )
- $\bar{X} = 2.07$  3. How relevant was the content of the Institute to the topic that was advertised?  
 $s = 1.00$  highly relevant ( 1 2 3 4 5 ) not at all relevant  
 (5 4 4 1 )
- $\bar{X} = 1.29$  4. Leaving aside the quality of instruction for the moment, do you think  
 $s = .61$  the topic treated in this Institute should be treated again in future Institutes?  
 definitely ( 1 2 3 4 5 ) definitely not  
 (11 2 1 )
- $\bar{X} = 2.93$  5. The staff's objectives for this Institute were:  
 $s = 1.07$  very clear to me ( 1 2 3 4 5 ) very unclear to me  
 ( 1 4 5 3 1 )
- $\bar{X} = 2.43$  6. The planning and organization of this Institute was:  
 $s = .76$  excellent ( 1 2 3 4 5 ) poor  
 ( 1 7 5 1 )
- $\bar{X} = 3.50$  7. Overall, was the Institute long enough to cover the topic adequately?  
 $s = .94$  considerably too long ( 1 2 3 4 5 ) considerably too short  
 ( 1 1 8 2 3 )
- $\bar{X} = 3.00$  8. As a rule, daily sessions were:  
 $s = .76$  considerably too long ( 1 2 3 4 5 ) considerably too short  
 ( 1 1 9 3 )

9. Do you feel all necessary prerequisites were clearly stated in information you received prior to the Institute? (check ONE)

(10) Yes, they were clearly stated  
 (2) No, they were ambiguous  
 (1) No prerequisites were listed

10. Did you receive advance reading materials from the Institute director(s) early enough to read them prior to the Institute? (check ONE)

(13) Yes, materials came early enough  
 (1) No, materials came too late  
 \_\_\_\_\_ No materials were sent

11. Do you think you entered the Institute with the appropriate prerequisites or prior knowledge to make what you learned there of value to you?

$\bar{X} = 2.4$   
 $s = 1.2$

I had more than enough preparation ( 1 2 3 4 5 ) I was seriously lacking in preparation ( 3 6 2 2 1 )

12. In terms of your background and preparation for the Institute, the content of this Institute was:

$\bar{X} = 2.6$   
 $s = .6$

too elementary ( 1 2 3 4 5 ) too advanced ( 6 6 1 5 )

13. Overall, the quality of instruction in this Institute was:

$\bar{X} = 2.0$   
 $s = .8$

excellent ( 1 2 3 4 5 ) poor ( 4 5 5 )

14. The instruction was generally:

$\bar{X} = 2.7$   
 $s = .4$

too lecture-oriented ( 1 2 3 4 5 ) too discussion-oriented ( 3 11 )

$\bar{X} = 1.5$   
 $s = .6$

very interesting ( 1 2 3 4 5 ) very uninteresting ( 8 5 1 )

$\bar{X} = 2.0$   
 $s = .9$

very informative ( 1 2 3 4 5 ) very uninformative ( 4 6 3 1 )

15. Opportunities for asking questions were:

$\bar{X} = 1.1$   
 $s = .3$

sufficient ( 1 2 3 4 5 ) insufficient ( 12 2 )

$\bar{X} = 2.4$   
 $s = 1.2$

16. Opportunities for studying were:

sufficient ( 1 2 3 4 5 ) insufficient ( 4 4 3 2 1 )

17. The amount of work the staff required of you was:

$\bar{X} = 4.0$   
 $s = .8$

far too much ( 1 2 3 4 5 ) far too little ( 2 9 3 )

18. Opportunities for you to interact with the staff with respect to problems in your own work which relate to the topic were:

$\bar{X} = 2.5$   
 $s = 1.2$

sufficient ( 1 2 3 4 5 ) insufficient ( 3 5 2 3 1 )



30. How would you rate the value of each of the following aspects of this institute?  
(Please circle ONE for EACH row)

no opportunity  
to judge                  very  
valuable                  worthless

$\bar{X}=2.18$ $s=1.17$	a. Scriven: pathway evaluation	NA ( 6 )	1 4	2 3	3 2	4 2	5 )
$\bar{X}=1.86$ $s= .68$	b. Stufflebeam: problems, CIPP model	NA ( 3 )	1 4	2 3	3 2	4 )	5 )
$\bar{X}=3.21$ $s=1.31$	c. Reinhard: advocate team technique	NA ( 3 )	1 2	2 2	3 3	4 5	5 2 )
$\bar{X}=1.64$ $s= .63$	d. Scriven: goal-free evaluation	NA ( 3 )	1 6	2 7	3 1	4 )	5 )
	e. Workbook examples	NA ( 17 )	1	2	3	4	5
$\bar{X}=3.00$ $s=1.00$	f. individual reading: use of reference table	NA ( 6 )	1	2	3	4	5 1 )
$\bar{X}=1.73$ $s= .67$	g. "Special topics" presentation	NA ( 8 )	1 3	2 5	3 1	4 )	5 )
$\bar{X}=2.64$ $s=1.01$	h. Discussion of individual problems	NA ( 3 )	1 2	2 4	3 5	4 3	5 )
$\bar{X}=1.85$ $s= .69$	i. General question and answer sessions with staff	NA ( 4 )	1 4	2 7	3 2	4 )	5 )
$\bar{X}=2.79$ $s=1.25$	j. Informal discussion with peers	NA ( 3 )	1 2	2 5	3 2	4 4	5 1 )

31. Please list any aspects of the Institute other than those listed in 30 above which you felt were of considerable value.
32. Please list any criticisms or suggestions you have concerning time allocation for any of the Institute activities or sessions.
33. a. Please list any elements which were missing from this Institute that you feel would be of value in future Institutes of this type.
- b. What would you suggest sacrificing from the present Institute format to make room for new topics or activities?

APPENDIX B



"Research on Reading Acquisition: With An Emphasis on Deprived Populations"

Directed by

S. Jay Samuels

University of Minnesota

February 21 - 25, 1973

The evaluation of Model B's training session involved the administration of four instruments three for the participants and one for the staff members. These instruments were revised forms of the instruments used in the evaluation of the traveling training institutes. Copies of the instruments used can be found in the appendix. Formative evaluation was the responsibility of the session staff; but Mrs. Gruenberg, who administered the instruments, assisted with this task.

Participant Instrument #1 was administered to those participants present just before their first session meeting began. Participation Instrument #2 was administered as a pre-test to a random half of the participants at the same time as Instrument #1. Participant Instrument #3, the Staff Instrument, and Participant Instrument #2 (as a post-test) were all administered near the close of the last meeting of each session. It was intended that all participants complete Instrument #2 as a post-test, with those who had been pre-tested indicating this on their post-test. The plan failed in that only a very few post-tests that were marked to indicate that the individual has been pre-tested. There was also a problem in general getting the instruments returned. Mailed follow-ups, where attempted and possible, also met with poor response.

The survey of AERA members at large showed that although only 31 percent of the respondents attended the annual meeting ( and two percent attended an AERA pre- or postsession), 83 percent were aware of the pre- and postsessions. The major reasons for not attending any sessions were scheduling problems in which participants could not be in (or remain in) New Orleans during the time the course was offered.

Participant Instrument #1 is tabulated below. Generally the exact

EMPLOYING INSTITUTIONS OF PARTICIPANTS

College or University	READING RESEARCH						Student	Other
	Public School System	Educl. R & D Centers	Regional Laboratory	Federal Government	State Dept. of Education			
6	3	0	0	0	1	2	2	

PRIMARY PROFESSIONAL ROLE

Teacher	PRIMARY PROFESSIONAL ROLE						Student	Other
	Administrator	Researcher	Evaluator	Developer	Supervisor			
6	1	0	2	3	0	2	0	

MOST ADVANCED DEGREE HELD

Bachelor's	MOST ADVANCED DEGREE HELD		
	Master's	Doctorate	Other
1	3	10	0

AERA DIVISION MEMBERSHIPS OF PARTICIPANTS

		DIVISIONS				
(A) Administration	(B) Curriculum & Objectives	(C) Learning & Instruction	(D) Measurement & Research Methodology	(E) Counseling & Human Development		
1	4	9	3		3	
(F) History & Historiography	(G) Social Context of Education	(H) School Evaluation	Student Member	Not AERA Member		
1	3	3	2	3		

NOTE: Individuals may be members of more than one AERA Division.

WHERE PARTICIPANTS FIRST LEARNED OF THE SESSION

Professional Publication	Colleague or Student	Mailed Notice	Other
12	2	0	0

PRIMARY REASONS FOR ATTENDING THE SESSIONS\*

Desire to gain new skills or knowledge related to the topic	Desire to improve existing skills or knowledge related to the topic	Desire to discuss problems related to the topic with experts	Other
6	10	7	0

\* Participants were asked to pick all of the reasons that applied.

PARTICIPANT'S PRIOR EXPERIENCE WITH THE TOPIC OF THE SESSION THEY ATTENDED

No Experience	Limited Experience	Considerable Experience	Great Amount of Experience
0	2	6	5

DISTANCE OF HOME FROM SESSION SITE

Less than 50 miles	50-100 miles	101-500 miles	501-1000 miles	more than 1000 miles
1	0	1	5	7

If this session were not available now, but was offered as a traveling institute for a similar amount of time at a location nearer your home, would you choose to attend the session there?

Yes	No
12	0

Will you attend (have you attended) the AERA Convention in New Orleans this year?

Yes	No
9	5

Is the date selected for the session convenient for you?

Yes	No
12	2

Is the site selected for the session convenient for you?

Yes	No
12	2

Approximate Percentage of Costs of Attending Session  
Paid Personally by Participants

---

TRAVEL					
	1-25%	26-50%	51-75%	76-99%	100%
0%	0	0	0	0	1

---

ROOM AND BOARD					
	1-25%	26-50%	51-75%	76-99%	100%
0%	1	1	1	0	2

---

TUITION FEE					
	1-25%	26-50%	51-75%	76-99%	100%
0%	0	1	0	0	3

Participant Instrument #2 results are tabulated below. Included with each item tabulation is the item mean and standard deviation. These values were obtained by assigning responses values from 1 to 5, with 5 corresponding to what would be thought to be the most positive response. The 5 corresponds with responses nearest the right-hand side of the page unless the item is preceded by a capital R, in which case the order is reversed and the 5 response is nearest the left-hand side of the page.

The tabulations are ordered with the pre-test coming first then the post-test. Each post-test is followed by analysis of variance table. Total scores for each returned pre-test and post-test were analyzed. No F ratio approached significance at the .10 level.



AERA Pre- session

Research on Improving Decoding and Reading Comprehension

Pre Test

Participant Instrument #2

Directions: This opinionnaire attempts to assess attitudes of participants toward educational evaluation. Please indicate your agreement or disagreement with each statement by checking ( ) the answer that best describes how you personally feel, regardless of whether other people may agree or disagree with you. Although many of the questions may appear similar, please judge each one on an individual basis. Since we need to know your attitude, please answer each question frankly and honestly. There are no correct responses. There is no time limit, but respond as quickly as you can, and do not leave out any of the statements.

	1.	I see and feel deeply a need for increased information about reading research for decision-making in my field.					Mean	4.38
		Strongly Disagree	Disagree	Undecided or Neutral	Agree	Strongly Agree	S.D	.52
		(0)	(0)	(0)	(5)	(3)		
R	2.	Reading research usually results in arbitrary judgments about the educative process.					Mean	3.00
		Strongly Disagree	Disagree	Undecided or Neutral	Agree	Strongly Agree	S.D	.93
		(0)	(3)	(2)	(3)	(0)		
R	3.	There is currently too much concern with decoding in reading education.					Mean	2.63
		Strongly Disagree	Disagree	Undecided or Neutral	Agree	Strongly Agree	S.D	1.06
		(0)	(2)	(2)	(3)	(1)		
	4.	Educators do not receive sufficient training in reading comprehension.					Mean	3.75
		Strongly Disagree	Disagree	Undecided or Neutral	Agree	Strongly Agree	S.D	1.04
		(0)	(1)	(2)	(3)	(2)		
R	5.	Reading processes are too complex to be studied objectively.					Mean	3.88
		Strongly Disagree	Disagree	Undecided or Neutral	Agree	Strongly Agree	S.D	.99
		(2)	(4)	(1)	(1)	(0)		

R 6.	Decoding in reading is an attempt to reduce education to a mechanistic process.					Mean 3.38
	Strongly Disagree	Disagree	Undecided or Neutral	Agree	Strongly Agree	S.D. 1.06
	(1)	(3)	(2)	(2)	(0)	
7.	Reading research usually results in improvements in educational practice.					Mean 2.50
	Strongly Disagree	Disagree	Undecided or Neutral	Agree	Strongly Agree	S.D. 1.07
	(1)	(4)	(1)	(2)	(0)	
R 8.	Intuition and general knowledge of practitioners are more valuable than reading research in making decisions in education.					Mean 3.88
	Strongly Disagree	Disagree	Undecided or Neutral	Agree	Strongly Agree	S.D. .35
	(0)	(7)	(1)	(0)	(0)	
R 9.	Using decoding and reading comprehension research information in my work does not appeal to me.					Mean 4.25
	Strongly Disagree	Disagree	Undecided or Neutral	Agree	Strongly Agree	S.D. .46
	(2)	(6)	(0)	(0)	(0)	
10.	Money spent on research contributes more to the improvement of reading education than any other expenditure.					Mean 2.63
	Strongly Disagree	Disagree	Undecided or Neutral	Agree	Strongly Agree	S.D. .92
	(0)	(5)	(1)	(2)	(0)	

AERA Pre-Session

Research in Improving Decoding and Reading Comprehension

Post Test

Participant Instrument #2

Directions: This opinionnaire attempts to assess attitudes of participants toward educational evaluation. Please indicate your agreement or disagreement with each statement by checking ( ) the answer that best describes how you personally feel, regardless of whether other people may agree or disagree with you. Although many of the questions may appear similar, please judge each one on an individual basis. Since we need to know your attitude, please answer each question frankly and honestly. There are no correct responses. There is no time limit, but respond as quickly as you can, and do not leave out any of the statements.

	1.	I see and feel deeply a need for increased information about reading research for decision-making in my field.					Mean
		Strongly Disagree	Disagree	Undecided or Neutral	Agree	Strongly Agree	4.25
		(1)	(0)	(0)	(5)	(6)	S.D. 1.14
R	2.	Reading research usually results in arbitrary judgments about the educative process.					Mean
		Strongly Disagree	Disagree	Undecided or Neutral	Agree	Strongly Agree	3.33
		(2)	(4)	(3)	(2)	(1)	S.D. 1.23
R	3.	There is currently too much concern with decoding in reading education.					Mean
		Strongly Disagree	Disagree	Undecided or Neutral	Agree	Strongly Agree	2.33
		(0)	(2)	(2)	(6)	(2)	S.D. .98
	4.	Educators do not receive sufficient training in reading comprehension.					Mean
		Strongly Disagree	Disagree	Undecided or Neutral	Agree	Strongly Agree	3.08
		(2)	(1)	(3)	(6)	(0)	S.D. 1.16
R	5.	Reading processes are too complex to be studied objectively.					Mean
		Strongly Disagree	Disagree	Undecided or Neutral	Agree	Strongly Agree	3.75
		(3)	(5)	(3)	(0)	(1)	S.D. 1.14

R 6.	Decoding in reading is an attempt to reduce education to a mechanistic process.					Mean
	Strongly Disagree	Disagree	Undecided or Neutral	Agree	Strongly Agree	3.50
	(3)	(5)	(0)	(3)	(1)	S.D. 1.38
7.	Reading research usually results in improvements in educational practice.					Mean
	Strongly Disagree	Disagree	Undecided or Neutral	Agree	Strongly Agree	2.08
	(3)	(6)	(2)	(1)	(0)	S.D. .90
R 8.	Intuition and general knowledge of practitioners are more valuable than reading research in making decisions in education.					Mean
	Strongly Disagree	Disagree	Undecided or Neutral	Agree	Strongly Agree	3.83
	(2)	(8)	(1)	(0)	(1)	S.D. 1.03
R 9.	Using decoding and reading comprehension research information in my work does not appeal to me.					Mean
	Strongly Disagree	Disagree	Undecided or Neutral	Agree	Strongly Agree	4.42
	(5)	(7)	(0)	(0)	(0)	S.D. .52
10.	Money spent on research contributes more to the improvement of reading education than any other expenditure.					Mean
	Strongly Disagree	Disagree	Undecided or Neutral	Agree	Strongly Agree	2.25
	(3)	(5)	(2)	(2)	(0)	S.D. 1.06

Analysis of Variance for Reading Research Pre-Post  
Attitude Scale (Participant Instrument #2)

TREATMENT GROUP	1	2
SAMPLE SIZE	8	12
MEAN	34.250	32.833
STANDARD DEVIATION	4.921	3.040

ANALYSIS OF VARIANCE

	SUM OF SQUARES	DF	MEAN SQUARE	F. Ratio
BETWEEN GROUPS	9.6333	1	9.6333	.6395
WITHIN GROUPS	271.1667	18	15.0648	
Total	280.8000	19		

The tabulation of Participant Instrument #3 follows. Tabulations are similar to those of Instrument #1, except the text of the item is usually included for this tabulation. Means and standard deviations as well as maximums and minimums appear where appropriate. The responses to the open ended items are as close to verbatim as possible.

TABULATION OF PARTICIPANT INSTRUMENT NO. 3

READING RESEARCH

1. How important do you feel the topic of this session is to educational research and/or evaluation?

Very important	1	2	3	4	5	Very unimportant	Mean	Standard Deviation
	(12)	(0)	(0)	(0)	(0)		1	0

2. How important do you feel the topic of this session is to educational practice?

Very important	1	2	3	4	5	Very unimportant	Mean	Standard Deviation
	(11)	(1)	(0)	(0)	(0)		1.08	.29

3. How relevant was the content of the session to the topic that was advertised?

Highly relevant	1	2	3	4	5	Not at all relevant	Mean	Standard Deviation
	(4)	(3)	(4)	(1)	(0)		2.17	1.03

4. Leaving aside the quality of instruction for the moment, do you think the topic treated in this session should be treated again in future sessions?

Definitely	1	2	3	4	5	Definitely not	Mean	Standard Deviation
	(10)	(1)	(1)	(0)	(0)		1.25	.62

5. The staff's objectives for this session were:

Very clear to me	1	2	3	4	5	Very unclear to me	Mean	Standard Deviation
	(1)	(1)	(3)	(5)	(1)		3.36	1.12

6. The planning and organization of this session was:

Excellent	1	2	3	4	5	Poor	Mean	Standard Deviation
	(1)	(0)	(2)	(5)	(4)		3.92	1.16

7. Overall, was the session long enough to cover the topic adequately?

considerably too long	1	2	3	4	5	Considerably too short	Mean	Standard Deviation
	(0)	(1)	(10)	(1)	(0)		3.00	.43

8. As a rule, daily sessions were:

Considerably too long	1	2	3	4	5	Considerably too short	Mean	Standard Deviation
	(0)	(1)	(10)	(1)	(0)		3.00	.43

9. Do you feel all necessary prerequisites were clearly stated in information you received prior to the session. (CHECK ONE)

Yes, they were clearly stated (3) No, they were ambiguous (4) No prerequisites were listed (5)

10. Did you receive advance reading materials from the Session director(s) early enough to read them prior to the session? (CHECK ONE)

Yes, materials came early enough (0) No, materials came too late (0) No materials were sent (12)

11. Do you think you entered the session with the appropriate prerequisites of prior knowledge to make what you learned there of value to you?

I had more than enough preparation 1 2 3 4 5 I was seriously lacking in preparation  
 (3) (4) (4) (0) (1)

Mean	Standard Deviation
2.33	1.15

12. How often did the instructional procedures take into account variability in prior knowledge brought to the session by participant?

Always	1	2	3	4	5	Never	Mean	Standard Deviation
	(0)	(2)	(4)	(2)	(3)		3.55	1.13

13. Overall, the quality of instruction in this session was:

Excellent	1	2	3	4	5	Poor	Mean	Standard Deviation
	(4)	(3)	(3)	(2)	(0)		2.25	1.14

14. The instruction was generally:

Too lecture oriented	1	2	3	4	5	too discussion oriented	Mean	Standard Deviation
	(2)	(4)	(6)	(0)	(0)		2.33	.78



very interesting	1	2	3	4	5	very uninteresting	Mean	Standard Deviation
	(1)	(4)	(7)	(0)	(0)		2.50	.67
Very informative	1	2	3	4	5	Very uninformative	Mean	Standard Deviation
	(2)	(2)	(5)	(2)	(0)		2.63	1.03

15. Opportunities for asking questions and studying were:

Sufficient	1	2	3	4	5	insufficient	Mean	Standard Deviation
	(5)	(0)	(4)	(2)	(1)		2.50	1.45

16. The amount of work the staff required of you was:

Far too much	1	2	3	4	5	Far too little	Mean	Standard Deviation
	(0)	(0)	(4)	(3)	(5)		4.08	.90

17. Opportunities for you to interact with the staff with respect to problems in your own work which relate to the topic were:

Sufficient	1	2	3	4	5	insufficient	Mean	Standard Deviation
	(3)	(1)	(1)	(3)	(4)		3.33	1.67

18. In your opinion, the staff members were in general:

Very well qualified	1	2	3	4	5	very unqualified	Mean	Standard Deviation
	(8)	(2)	(1)	(0)	(1)		1.67	1.23
Very well prepared	1	2	3	4	5	Very unprepared	Mean	Standard Deviation
	(2)	(4)	(3)	(1)	(1)		2.55	1.21

19. Did the staff seek your reactions to their instructional procedures, scheduling, etc., during the session?

Frequently	1	2	3	4	5	Never	Mean	Standard Deviation
	(4)	(2)	(3)	(3)	(0)		2.42	1.24

20. Did it appear to you that your reactions led to improvements in the instructional procedures, scheduling, etc.?

Frequently	1	2	3	4	5	Never	Mean	Standard Deviation
(6)	(3)	(2)	(1)	(0)			1.83	1.03

21. The formal evaluation of this session by the "outside evaluation" (e.g., those instruments) was:

Not at all disruptive	1	2	3	4	5	Very disruptive	Mean	Standard Deviation
(9)	(2)	(1)	(0)	(0)			1.33	.65

22. The meeting room facilities for the session were:

Excellent	1	2	3	4	5	Poor	Mean	Standard Deviation
(0)	(2)	(5)	(4)	(1)			3.33	.89

23. Do you anticipate ... be useful to you ... Work

Mean	Standard Deviation
1.83	.94

24. Considering ... , the tuition fee was:

Mean	Standard Deviation
4.25	.75

25. Approximately how much money (including travel costs, living expenses, and tuition) did this session cost you personally (i.e., was not reimbursed)? \$ \_\_\_\_\_

Mean	Standard Deviation	Maximum	Minimum
\$146.67	\$170.42	\$400.00	\$00.00

26. What was the total amount of money (including travel costs, living expense, and tuition) your attendance cost, including costs to you and costs paid by your institution or other sources? \$ \_\_\_\_\_

Mean	Standard Deviation	Maximum	Minimum
\$546.58	\$85.24	\$650.00	\$400.00

27. If you were able to choose over again, would you attend this session?

Yes	No	Uncertain
5	2	5

28. If this session were held again, would you recommend to a colleague that he attend?

Yes	No	Uncertain
8	3	1

Considering what you have learned by attending this session (or any other benefits you have received from attendance), the tuition fee was:

Considerably too low	1	2	3	4	5	Considerably too high
	(0)	(0)	(2)	(5)	(5)	

Do you anticipate that what you have learned from the session will be useful to you in your work?

Definitely	1	2	3	4	5	Definitely not
	(5)	(5)	(1)	(1)	(0)	

READING

Please list any aspects of the session which you felt were of considerable value.

---

The theoretical orientations of Frank Smith and Kenneth Goodman.

Dr. Frank Smith's presentation. Dr. Kenneth Goodman's research.

Much of the info presented was highly valuable but there may have been better ways to get that info across.

Frank's concept of language. Jay's approach to teaching.

Hearing staff members debate their conflicting views - very stimulating.

Opportunity to hear individuals whose work is frequently cited in literature.

Presentation of recent research findings and theories.

The more technical presentation.

The preparation, involvement and stimulation of a couple, part time three, or staff were of great interest and satisfaction to me and some value.

Psycholinguistics.

---

Please list any criticism or suggestions you have concerning time allocation for any of the session activities.

Dr. Samuels had not properly organized for the session. He had made no provisions for duplication of materials or pre-institute reading. This institute was conducted like presentations at a convention.

Lack of preparation, before and during, session and lack of content focus on topic was occasionally distressing.

Time blocks, ok. Activities during these blocks frequently led to boredom and fatigue.

Less presentations beyond realm of staff.

J. Bormuh's research on readability. J. Williams research on tactile relationship to discrimination.

---

What would you suggest sacrificing from the present session format to make room for new topics or activities?

It could have been condensed to three days.

Perhaps too many topics already. If something must be sacrificed kill the lecture (not the lecturer) and get more interaction. You are biasing the respondents with this question. Does something have to be sacrificed? I suspect not.

1973 AERA Pre and Post Training Sessions

Staff Instrument #1

Topic of Session Reading Research

As part of our evaluation of the AERA Training Sessions, we feel it important to obtain your reactions, as directors or staff members, to several aspects of the session. We will appreciate your candor in responding.

For each partial statement printed below, please circle the number which best reflects your reaction to that statement.

1. The meeting rooms were:

excellent 1 2 3 4 5 poor  
(0) (0) (1) (2) (0)

2. The living

excellent 1 2 3 4 5 poor  
(2) (0) (1) (0) (0)

3. The number of participants was:

too large 1 2 3 4 5 too small  
(0) (0) (2) (0) (1)

4. The background of the participants (as a group) for the topic of this session was:

very adequate 1 2 3 4 5 very inadequate  
(0) (2) (1) (0) (0)

5. As a group, motivation and interest of the participants appeared to be:

very high 1 2 3 4 5 very low  
(2) (1) (0) (0) (0)

6. In terms of following your (or the Director's) instructions and schedule, participants were:

very cooperative 1 2 3 4 5 very uncooperative  
(3) (0) (0) (0) (0)

7. The next Training Session on this topic should be:

considerably longer 1 2 3 4 5 considerably shorter  
(0) (0) (1) (0) (2)

8. For this group of participants, the content presented was:

too easy 1 2 3 4 5 too difficult  
(0) (0) (3) (0) (0)

too theoretical 1 2 3 4 5 too non-theoretical  
(0) (0) (3) (0) (0)

very useful 1 2 3 4 5 useless  
(1) (0) (2) (0) (0)

9. Participants' knowledge and/or skills related to this topic have:

increased considerably 1 2 3 4 5 shown no increase  
(1) (2) (0) (0) (0)

10. As a facilitator in making arrangements for this Institute, the efforts of AERA Central Office staff were:

very helpful 1 2 3 4 5 not at all helpful  
(2) (0) (0) (0) (0)

11. Formative evaluation feedback proved:

very helpful 1 2 3 4 5 not at all helpful  
(2) (0) (0) (0) (0)

12. As a result of formative evaluation feedback you made:

many changes 1 2 3 4 5 no changes  
(1) (0) (1) (0) (0)

13. Overall, the evaluation procedures were:

not at all disruptive 1 2 3 4 5 very disruptive  
(1) (0) (1) (0) (0)

14. Overall, your objectives for this Institute were:

attained 1 2 3 4 5 not attained  
(2) (0) (1) (0) (0)

(Please be as specific as possible in responding to the open-ended questions below)

15. Now that the Institute is over, what things do you feel went especially well?

1. Excellent exposure of staff points of view, which differed widely.
2. Individual relations between staff and participants.
3. Very provocative discussion, both among staff and between staff and participants. Good coverage of important theoretical issues.

16. What Areas do you feel are most in need of improvement before next time?
  1. Some suggested prior readings for participants. More formal structure in program - or at least an opportunity for staff to make a program coherent.
17. Any other comments on ways to improve the sessions or the procedures for evaluating the sessions?
  1. Formative evaluation is important. We found it helpful.
  2. Make clearer to participants and instructors the purpose of the Institute.



APPENDIX C

**I. Research on Reading Acquisition: With An Emphasis on Deprived Populations**

**Date:** February 21 - 25  
**Cost:** Five days, AERA members—\$225;  
nonmembers—\$250  
**Director:** S. Jay Samuels, University of Minnesota  
**Instructors:** Jack Bormuth, University of Chicago  
Frank Smith, Ontario Institute for  
Studies in Education, University of  
Toronto  
Joanna Williams, Teachers College,  
Columbia University  
Ken Goodman, Wayne State University

This session will discuss a number of unresolved issues such as the role of language variation and its interference in reading, existence of subskills in reading and the role of intelligence differences in reading acquisition. The faculty represents different viewpoints on these problems. The objectives consist of presenting data on each of these issues and introducing new unpublished information on how to facilitate decoding and comprehension. These new approaches to decoding and comprehension are of special relevance for our poor population.

This session is designed to train a broader audience than just academic research producers. This session will include such topics as: (a) language differences among the disadvantaged; (b) special curriculum needs of the learning-disabled child; (c) operationalization of the comprehension process for instruction; (d) twelve easy ways to make reading difficult; (e) new ways to facilitate perceptual learning; (f) role of intelligence in reading, and how to minimize the effects of low I.Q. in reading acquisition; (g) theories of the reading process for beginning and skilled readers; and (h) prerequisites for reading.

The session is suitable for curriculum supervisors, teachers of learning-disabled students, personnel who work with inner-city residents and the disadvantaged, school evaluators, curriculum designers, reading specialists, and researchers in verbal learning.

The content of the session will be presented so that participants will be able to comprehend all major concepts. Provisions have been made to include blocks of time for faculty-audience discussion. Evening discussions will be participant-organized and run with staff taking a part, but not a leading role.

No special training or background beyond that usually found at professional meetings is required. Selected materials will be given to the audience. Additional materials, such as books, will be available for temporary loan.

## II. Computer Managed Instruction

**Date:** February 23, 24, 25  
**Cost:** Three days, AERA members—\$135;  
nonmembers—\$150  
**Director:** Frank B. Baker, University of Wisconsin  
**Instructors:** Jack McManus, Southwest Regional  
Laboratory

Robert Berger, Southwest Regional  
Laboratory  
George Behr, University of Wisconsin

One of the important recent developments in education has been the emergence of computer-based instructional management systems (CMI). Such systems represent a new mode of computer involvement in the instructional process and they will assume an increasingly important role in future educational research. Because CMI systems are quite new and little systematic literature exists, it is difficult for educational researchers to become familiar with the field. Consequently, the primary objective of this session is to provide the participants with a concise, up to date, examination of the field of CMI. This examination will focus upon the conceptual basis of CMI, the design rationale of existing CMI systems, and the role of CMI systems as a powerful vehicle for conducting a wide range of educational research.

Upon completion of the session, participants will have acquired an understanding of the role played by CMI systems in the instructional process, will be aware of the "state of the art" in the field of CMI; and establish a relationship between their own research and CMI.

This session is designed to meet the needs of two rather distinct groups. One is the educational researcher whose work could be facilitated by becoming involved in CMI. Second are persons in the public schools who need to acquire a working knowledge of CMI in order to participate in CMI related research. Although the actual involvement of these two groups in CMI could be quite different, they have a common need for an exposure to the most recent developments in the field of CMI. These two audiences will complement each other in the discussion groups. Content will be presented in a building block fashion that presumes *no* prior knowledge of CMI. The concepts underlying CMI will be presented before actual CMI systems are examined. In this way the participants will be brought to a common background level. Through the combined use of lectures, small and large group discussions, audio-visual presentations and computer demonstrations, participants will be shown the many facets of CMI quickly and effectively. Small discussion groups will enable persons with common interests to work together at a level that is consistent with their abilities. "Hands on" experience will be provided that will enable the participants to actually use a CMI system via a computer terminal.

It should be noted that it is assumed the participants have *no* prior computer experience. A course outline, copies of survey papers, system documentation, and instructional materials will be provided participants prior to the training session.

# AERA RESEARCH TRAINING INSTITUTE

RESEARCH ON READING ACQUISITION, WITH AN EMPHASIS ON  
DEPRIVED POPULATIONS

S. Jay Samuels, University of Minnesota

Joanna Williams, Columbia University

David LaBerge, University of Minnesota

This Traveling Training Institute will discuss a number of unresolved issues such as the role of language variation and its interference in reading, existence of subskills in reading and the role of intelligence differences in reading acquisition. The faculty represents different viewpoints on these problems. The objectives consist of presenting data on each of these issues and introducing new unpublished information on how to facilitate decoding and comprehension. These new approaches to decoding and comprehension are of special relevance for our poor population.

This session is designed to train a broader audience than just academic research producers. This session will include such topics as: (a) language differences among the disadvantaged; (b) special curriculum needs of the learning-disabled child; (c) operationalization of the comprehension process for instruction; (d) twelve easy ways to make reading difficult; (e) new ways to facilitate perceptual learning; (f) role of intelligence in reading, and how to minimize the effects of low I.Q. in reading acquisition; (g) theories of the reading process for beginning and skilled readers; and (h) prerequisites for reading.

The session is suitable for curriculum supervisors, teachers of learning disabled students, personnel who work with inner-city residents and the disadvantaged, school evaluators, curriculum designers, reading specialists, and researchers in verbal learning.

The content of the session will be presented so that participants will be able to comprehend all major concepts. Provisions have been made to include blocks of time for faculty-audience discussion. An evening discussion will be participant organized and run with staff taking a part, but not a leading role.

No special training or background beyond that usually found at professional meetings is required. Selected materials will be given to the audience. Additional materials, such as books, will be available for temporary loan.

\* \* \* \* \*

The first offering of the Institute will be on June 18 and 19, 1973 in New York City. The second presentation of the session will occur in Minnesota during August. The registration fee for the Institute is \$90 for AERA member, \$100 for non-members.

Requests for applications and inquiries should be directed to the Central Office of AERA.

AMERICAN EDUCATIONAL RESEARCH ASSOCIATION  
1126 Sixteenth Street, N.W., Washington, D.C. 20036

AERA

RESEARCH TRAINING INSTITUTES

The American Educational Research Association will sponsor a number of training sessions during 73-74. The Institutes are carefully selected, designed and organized to meet some of the specific training needs of educational researchers and practitioners. The Institutes listed below indicate the initial occurrence. Some of these sessions will be repeated in different regions of the county. For abstracts of these sessions, applications, future sites and announcements of additional Training Institutes write: Research Training, AERA Central Office, 1126 Sixteenth Street, N.W., Washington, D.C. 20036 or consult issues of the Educational Researcher.

Title: Research in Performance Based Teacher Education  
Director: Frederick J. McDonald, ETS; New Jersey  
Instructors: Bruce R. Joyce, Columbia University  
John D. Krumboltz, ETS; New Jersey  
Marlaine Lockheed Katz, ETS; New Jersey  
David A. Potter, ETS; New Jersey  
Date: Three days, May 2,3,4  
Cost: AERA members - \$135, Non-members \$150  
Location: Boston, Massachusetts

Title: Criterion Referenced Measurement and Instructional Improvement  
Director: Eva L. Baker, University of California, Los Angeles  
Instructors: Jason Millman, Cornell University  
Evan Keislar, University of California, Los Angeles  
Date: Two days, September  
Cost: AERA members - \$90, Non-members \$100  
Location: San Diego, California

Title: Research on Reading Acquisition, With an Emphasis on Deprived Populations  
Director: S. Jay Samuels, University of Minnesota  
Instructors: Joanna Williams, Columbia University  
David LaBerge, University of Minnesota  
Date: Two days, June  
Cost: AERA members - \$90, Non-members \$100  
Location: New York City

Title: Theory and Methodology of Research of Written Instruction  
Directors: Ernst F. Rothkopf and Laurence T. Frase, Bell Telephone Lab., New Jersey  
Date: Three days, August 3,4,5  
Cost: AERA members - \$135 Non-members \$150  
Location: Madison Wisconsin

Title: Alternative Conceptions of Evaluation  
Directors: Michael Scriven, University of California, Berkeley  
Daniel Stufflebeam  
Instructor: Diane Reinhard  
Date: Two days, July 5,6  
Cost: AERA members - \$90, Non-members \$100  
Location: Berkeley, California

# 1973 Annual Meeting Notices

## Call for Proposals: 1973 Research Training Sessions

Proposals are now being solicited for the 1973 Research Training Sessions to be held in conjunction with the AERA Annual Meeting in New Orleans, February 26—March 1, 1973 (Mardi Gras Commences March 3rd).

As in previous years, these sessions are designed to upgrade the research competencies of individuals engaged in educational research. In addition to these now traditional training sessions, an Office of Education grant has been awarded to AERA for conducting two new pre- or post-sessions specifically planned to train a much broader audience than the narrowly defined educational research producer. These two sessions will be designed for audiences such as developers and evaluators in schools, academic researchers in disciplines such as anthropology, political science and economics, and for those involved in educational research with minorities and with urban environment.

Individuals interested in proposing and directing an AERA Training Session should write to the Research Training Chairman, Frank H. Farley, for a proposal outline. The sessions will vary in length from two to five days depending on the nature of the training to be conducted. There are no restrictions on content; it is hoped that a broad range of topics will be proposed. To continue present policy of making training sessions a self-supporting activity, participants will be charged a fee.

The deadline for submission of proposals is July 12, 1972. Reviews and recommendations on proposals will be made by representatives of the Divisions. Final selection will be the responsibility of the Standing Committee on Research Training. Prospective directors will be notified in early August of the acceptability of their proposals.

Requests for proposal outlines

and inquiries should be addressed to: Frank H. Farley, Wisconsin Research and Development Center for Cognitive Learning, University of Wisconsin, 1404 Regent Street, Madison, Wisconsin, 53706.

### Mini-Course Instructors

In an effort to explore ways in which the Annual Meeting can be used to improve the research competencies of its members, AERA will sponsor two- to four-hour mini-courses during the 1973 Annual Meeting in New Orleans. The purpose of the sessions will be to transmit *specific skills* in research, development, and evaluation to participants rather than to carry on a general discussion. Mini-course instructors will receive a modest honorarium and/or travel expenses; participants will be expected to pay a small fee.

Individuals interested in serving as instructors should prepare a short statement specifying what the participants will be able to do by virtue of attending the instructional session. The intended skills to be developed should be identified in as specific terms as possible.

By July 15, 1972, mail this statement and a self-addressed envelope to Jason Millman, Stone Hall, Cornell University, Ithaca, NY 14850.

### Experimental Conversations Planned for '73 Meeting

In an effort to explore ways in which the Annual Meeting can be used to improve the research of its members, AERA will experiment with facilitating conversations between established and less experienced educational researchers working in common areas of interest. These conversations will take place during the 1973 Annual Meeting in New Orleans. Here is how they will work.

1. If you are pursuing a line of research inquiry you would like discussed by a prominent researcher, nominate the individual and in one to three sentences describe your area of research interest.

2. From among the more frequently mentioned nominees, individuals will be invited to lead conversations.

3. If your nominee is selected and agrees to participate, then shortly before the Annual Meeting you may be invited to prepare a one to two page statement describing your research ideas and any questions you would like to see discussed.

4. This statement will be sent to the individuals nominated with the hope that it will influence the content of the conversations.

Attendance at these conversations will be controlled by a ticket system similar to that employed with the graduate student seminars. Unlike the graduate student seminars, however, these conversations are open to all conference participants and the discussion should be focused on specific concerns of the nominators rather than on general issues.

### Research Conversation Nomination Form

Name \_\_\_\_\_

Institution \_\_\_\_\_

Street \_\_\_\_\_

City/State/Zip \_\_\_\_\_

Your Nominee \_\_\_\_\_

His/Her Institution \_\_\_\_\_

Line of Research *YOU* are pursuing:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

This form and a stamped, self-addressed envelope should be mailed by July 15 to Jason Millman, Stone Hall, Cornell University, Ithaca, NY 14850.

### **Call for Proposals**

#### **1974 Research Training Program**

Proposals are now being solicited for AERA's 1974 Research Training Program. As in previous years, the training sessions are designed to upgrade the research competencies of individuals engaged in education research and development as well as for an audience broader than the narrowly defined educational research producer. There are no restrictions on course content, and it is hoped that a wide range of topics will be proposed.

Proposals for training sessions in 1974 will be considered for any of the three modes listed below:

1. Pre or Post Sessions—These training sessions will vary in length from two to five days depending on the nature of the training to be conducted. The sessions will be held in conjunction with the 1974 annual meeting in Chicago, April 15-19.

2. Training Institutes—These two to five day institutes will be conducted one or more times during the year in different regions of the country.

3. Mini Training Courses—Four hour training sessions to transmit specific skills in R, D & E will be held *during* the 1974 annual meeting in Chicago, April 15-19.

To enable the research training program to maintain a self-supporting status, participants will be charged a registration fee. However, to establish these fees at a minimal rate, directors are strongly urged *not* to impose an arbitrary limit on enrollment.

The deadline for submission of proposals is *August 1, 1973*. Reviews and recommendations on proposals will be made by representatives of Divisions. Final selection is the responsibility of the Standing Committee on Research Training. Prospective directors will be notified in September of the acceptability of their proposals.

Requests for proposal outlines and inquiries should be addressed to: Research Training Committee, AERA, 1126 Sixteenth Street, N.W., Washington, D.C. 20036.

A E R A

## MINI RESEARCH TRAINING COURSES

during

The Annual Meeting

Attached are the descriptions and location of four 3 or 4 hour training sessions that will be conducted during the annual meeting. These sessions are designed to transmit specific skills in educational research, development and evaluation.

Participants should register and obtain a ticket at the registration area of the Marriott or Jung Hotels. Early registration is encouraged as attendance will be limited to 50 participants per session.

A registration fee of \$8.00 will be assessed each participant.



TITLE: Computers in Educational Research

DESCRIPTION: This is a computer literacy course that will enable participants to generalize about, and discriminate between, computer systems, options and languages and make intelligent decisions about their uses. Participants will be able to:

1. (a) identify the basic components of computer systems and  
(b) describe their functions
2. (a) identify optional components of computer systems  
(b) describe their functions and  
(c) rate their importance for research applications.
3. Write short programs in a current programming language and using this language as a model, be able to:
  - (a) describe the basic components of computer languages
  - (b) describe the techniques usually used to implement them
  - (c) identify the hardware components necessary for the implementation and
  - (d) rate languages regarding their appropriateness for research applications.
4. Describe a number of "program packages" that are commonly used in educational research.

INSTRUCTORS: Ronald G. Ragsdale and Sorel Reisman

INSTITUTION: Ontario Institute for Studies in Education

LENGTH: 4 hours

TIME & PLACE: Tuesday, February 27, 1973, 2:15-6:15  
Chartres, Marriott Hotel

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TITLE: Nonparametric Analysis of Variance on Main Effects and Interaction Based on Normal Scores

DESCRIPTION: Often behavioral researchers discard plans to perform a classical t or F test in ANOVA designs because of assumption violation. Until recently, little could be suggested to help a researcher if the designs contained nested or crossed factors, but now highly efficient alternatives have appeared based on normal scores. Some of these methods are presented in this minicourse. Statistical tests, planned and post hoc methods of analysis based on normal scores are presented for one, two, nested and crossed designs. Attendants will be taught how to use these methods with confidence and explain the results of a normal scores analysis to lay readers or listeners. Instruction will be conducted from extensive and complete handouts.

INSTRUCTOR: Leonard A. Marascuilo

INSTITUTION: University of California at Berkeley

LENGTH: 3 hours

TIME & PLACE: Wednesday, February 28, 1973, 2:15-6:15  
Mardi Gras F, Marriott Hotel

3 TITLE: Planning Formative Evaluations for Instructional Products

DESCRIPTION: The purpose of formative evaluations is to determine which components of an instructional product need to be improved. This training session will (1) introduce the participant to the major considerations involved in planning a formative evaluation -- statement of purpose, selection of measures, sample, design, method of analysis, criteria for decisions to revise, administrative plan, and (2) provide the participant with experience in reviewing and criticizing summaries of formative evaluation plans.

The training session will be conducted primarily as a series of problem/simulated situations in which the participants as members of small teams, will be asked to design or redesign formative evaluation plans. In addition, there will be general presentations on the structure of and criteria for assessing formative evaluation plans.

The training session is particularly designed for persons interested in or responsible for the development or revision of instructional materials and programs. Knowledge of elementary descriptive statistics is assumed.

INSTRUCTORS: Eva L. Baker, Director; Evan Keisler, Peter Leung, Merlin C. Wittrock and Edys Quellmalz

INSTITUTION: University of California at Los Angeles and SWRL

LENGTH: 3 hours

TIME & PLACE : Monday, February 26 1973, 2:15-5:15  
Meeting Room 2, Jung Hotel

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4 TITLE: Sample-Free Item Calibration and Test-Free Person Measurement

DESCRIPTION: Participants will learn how to use the log odds response model for the expression of a latent trait to organize and evaluate the objective measurement of that trait. A simple method for estimating item difficulties from observed item scores and person abilities from all possible person scores will be presented in terms of a short convenient FORTRAN program compilable on most computers. Thus participants will be able to try the technique immediately at their own institutions.

INSTRUCTOR: Benjamin Wright

INSTITUTION: University of Chicago

LENGTH: 4 hours

TIME & PLACE : Wednesday, February 28, 1973, 2:15-6:15  
Meeting Room 10, Jung Hotel

TO: Past AERA Pre-session Directors

FROM: Jay Millman (for the AERA Research Training  
Committee)

SUBJECT: Mini-courses

DATE: June , 1972

In order to improve the research competencies of its members, AERA is sponsoring mini-courses during its 1973 convention in New Orleans. These mini-courses will differ from pre-sessions in at least three important ways:

1. The mini-courses will be short--two to four hours in length.
2. The mini-courses are intended to transmit specific skills in research, development, and evaluation to participants rather than to provide for a general discussion.
3. The mini-courses will be held during the annual meeting at the convention site.

Because you have already developed training materials for a much longer period of time, it may well be that some portion of that instruction would be self-contained and appropriate for such a mini-course. If you are interested in serving as an instructor, please prepare a short statement specifying what the participants will be able to do by virtue of attending the instructional session. The intended skills to be developed should be identified in as specific terms as possible. By July 15, 1973, mail this statement and a self-addressed envelope to me at Stone Hall, Cornell University, Ithaca, New York, 14850.

Mini-course instructors will receive a modest honorarium and/or travel expenses; participants will be expected to pay a small fee.

JM:bl



New York State College of Agriculture and Life Sciences  
a Statutory College of the State University  
Cornell University

Department of Education  
Stone Hall  
Ithaca, N. Y. 14850

August 8, 1972

Dr. Richard Anderson  
8 Lincoln Hall  
University of Illinois  
Urbana, Illinois 61801

Dear Dick:

This year the AERA Standing Committee on Research Training is exploring ways to use the 1973 annual meeting (New Orleans - circa 3/1) to provide research and research related skills to participants. One (of three) such ways is to hold "conversation hours" in which prominent researchers like yourself spend up to 1½ hours in informal discussion with young researchers who want to pick your brains.

These conversation hours will differ from the graduate student seminars in two respects: (1) they will be open to all participants, not just graduate students; and (2) they will focus on the specific research concerns of the participants rather than emphasize more general commentary. (The names of the roughly four conversation hour leaders will appear in ER, and conference goers will be encouraged to send you in advance 2-page statements of problems they'd like you to discuss. Hopefully, your remarks will be addressed to some of these concerns.)

Since this is our first attempt at something like this, we are most anxious to obtain outstanding individuals like yourself. I hope you will agree to participate. Please let me know as soon as possible if you are willing to undertake this virtually no-preparation "assignment". If your answer is positive, I'll need your address for 1/1/73-3/1/73.

Cordially,

Jason Millman  
(For the Committee)

JM:JBT

cc: William Russell  
W. James Popham

# CONVERSATIONAL HOURS

In an effort to explore ways in which the annual meeting can be used to increase the research competencies of its members, AERA is conducting conversation hours between prominent members of the educational research community and other researchers.

The following are the discussion leaders, topics and location of the 4 conversational hours:

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## Research on Human Learning and Memory: The Psychology of Instruction

Discussion Leader: Richard Anderson  
University of Illinois

Time: Wednesday, February 28, 1973, 2:15-3:45  
Location: Meeting Room 5, Jung Hotel

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## Research on Educational Measurement

Discussion Leader: Robert L. Ebel  
Michigan State University

Time: Thursday, March 1, 1973, 10:35-12:05  
Location: Meeting Room 5, Jung Hotel

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## Research on the Conditions for Learning and Instruction

Discussion Leader: Robert Gagne  
Center for Advanced Study in  
the Behavioral Sciences and  
Florida State University

Time: Tuesday, February 27, 1973, 12:25-1:55  
Location: Meeting Room 4, Jung Hotel

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## Research on Higher Education

Discussion Leader: Roger Heyns  
American Council for Education

Time: Wednesday, February 28, 1973, 2:15-3:45  
Location: Mardi Gras H, Marriott Hotel

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# Annual Meeting Notices

## Training

### Conversational Hours

Four sessions have been scheduled during the Annual Meeting to facilitate conversations between prominent members of the educational research community and other researchers. Individuals who wish to attend one of these sessions are urged to write directly to the leader and indicate the research problem(s) which they would like addressed. The intended advantage of this procedure is to insure that the majority of interests from the audience will receive a considered response from the discussion leader. Following are the discussion leaders, topics they will consider and mailing addresses.

• Richard Anderson, Lincoln Hall, University of Illinois, Urbana, Illinois 61801. (Research on Human Learning and Memory: The Psychology of Instruction.)

• Robert L. Ebel, 449 Erickson Hall, Michigan State University, East Lansing, Michigan 48823. (Research on Educational Measurement.)

• Robert Gagné, Center for Advanced Study in the Behavioral Sciences, 202 Junipero Serra Blvd., Stanford, California 94305. (Research on the Conditions for Learning and Instruction.)

• Roger Heyns, American Council for Education, One DuPont Circle, Washington, D.C. 20036. (Research on Higher Education.)

If you have a research problem in one of the areas represented above and if you'd like the man listed to discuss the problem with you, then send him a one or two-page letter indicating the concerns you'd like addressed. Mark the letter "AERA Conversation Hour."

### Exhibit of Self Instructional Materials

Several types of self instructional materials will be available, free of charge, to registrants of the Annual Meeting. A permanent training ex-

Programs  
for the

### 1973 AERA Annual Meeting

February 25 - March 1  
New Orleans

Have been mailed to all  
AERA members

### BRING YOUR PROGRAM TO NEW ORLEANS

Only a limited number of copies will be available in New Orleans. Advance registrants requiring an additional copy of the program will be charged a fee.

Advance registration closes January 20. Registration and housing forms are in the program.

hibit will be located in Mardi Gras D of the Marriott Hotel from 9 - 5 during the four days of the meeting to enable individuals to enter the exhibit and carefully examine and/or study the training materials selected for display. Included among items displayed will be examination copies of all AERA training tapes.

### Mini Research Training Courses

The following 3 or 4 hour training sessions to transmit specific skills in research, development and evaluation have been scheduled during the Annual Meeting. Participants may register on site and will be assessed an \$8 fee.

**Nonparametric Analysis of Variance on Main Effects and Interaction Based on Normal Scores (3 hours)**

*Instructor:* Leonard A. Marsuculo, University of California at Berkeley

Statistical tests, planned and post hoc methods of analysis based on

the use of normal scores in place of original observations will be presented for one, two, nested, and crossed ANOVA designs.

**Computers in Educational Research (4 hours)**

*Instructors:* Ronald G. Ragsdale and Sorel Reisman, Ontario Institute for Studies in Education

This is a computer literacy course that will enable participants to generalize about and discriminate between, computer systems, options and languages and make intelligent decisions about their uses.

**Planning Formative Evaluations for Instructional Products (3 hours)**

*Instructors:* Richard A. McCann, Eva L. Baker, Evan Keislar, and Merlin C. Wittrock, University of California at Los Angeles.

The training session will (1) introduce the participant to the major considerations involved in planning a formative evaluation—statement of purpose, selection of measures, sample, design, method of analysis, criteria for decisions to revise, administrative plan, and (2) provide the participant with experience in reviewing and criticizing summaries of formative evaluation plans.

**Sample-Free Item Calibration and Test-Free Person Measurement (4 hours)**

*Instructor:* Benjamin Wright, University of Chicago

A simple method for organizing and evaluating the objective measurement of a latent trait presented in the language of a short convenient FORTRAN program.

### Stanford No Host Dinner

A no-host cocktail hour and dinner for faculty, students, alumni and friends of the School of Education, Stanford University, will be held Monday, February 26, at the Royal Orleans Hotel in New Orleans. Cocktails (no-host) will be served from 7:30; dinner at nine. For reservations write by February 1, to Ms. Doris Fevrier, School of Education, Stanford University, Stanford, Calif. 64305.

NEW YORK STATE COLLEGE OF AGRICULTURE  
A STATUTORY COLLEGE OF THE STATE UNIVERSITY  
CORNELL UNIVERSITY  
ITHACA, N. Y. 14850

DEPARTMENT OF EDUCATION  
STONE HALL

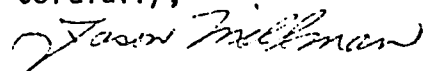
Dear Colleague:

In an effort to explore ways in which the Annual Meeting can be used to improve the research, development and evaluation skills of its members, the American Educational Research Association will sponsor a self-study center at the 1973 New Orleans meeting. The center will consist of film materials, audio tape cassettes, and workbook supplies which provide self-instructional training in research, development and evaluation skills. AERA staff members will monitor the materials. A one-time only fee of \$1.00 will be charged to users; publishers of commercially available materials will be charged \$25.00 if any of their products are displayed. The room will be open for several hours each day of the convention. Except for filmed materials which will be shown at scheduled times, all selected products will be available for self-study whenever the center is open.

If you have authored materials which you would like used at this convention and which you feel are self-instructional and provide for R, D or E skill training, please send me a specimen set of the instructional products in time to reach me by September 11, 1972 and note whether multiple copies of non-film products can be provided for the New Orleans convention. (These materials will be returned shortly after they are received, at which time you will be notified if they are judged appropriate for the self-study center.)

I welcome correspondence or telephone calls if you wish to discuss this project further. If you know of other self-instructional, R, D & E skill training materials of high quality which you think appropriate for our needs, won't you be good enough to provide me with an appropriate name and address?

Cordially,



Jason Millman, Member  
AERA Standing Committee on  
Research Training

# EXHIBIT OF SELF-INSTRUCTIONAL MATERIALS

MARDI GRAS D, MARRIOTT HOTEL

9-5 Monday through Thursday

THE FOLLOWING SELF-INSTRUCTIONAL RESEARCH TRAINING MATERIALS  
WILL BE AVAILABLE FOR INDIVIDUAL STUDY AND/OR EXAMINATION:



**Title:** Perspectives on Recent Research -- AERA Cassette Tape Recordings

**Authors:** R. Gagne, D. Meyer, J. Platt, A. A. Lumsdaine, J. Millman, M. Scriven, R. Glaser, F.N. Kerlinger, E. Rothkopf, R. Travers, N. Flanders, R. Jones, H. Levin, L. Marascuilo, R. Anderson.

**Description:** Each tape by an eminent scholar in the field was commissioned by AERA with a specific objective -- to give the listener at least one important technical skill relating to educational research. Although primarily intended as an update device for the educational researcher who has completed his formal training, many professors will find the tapes ideal for their graduate classes.

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**Title:** Applied Decision Making

**Authors:** Joseph Ward Jr., Air Force Human Resources Lab; and AERA.

**Description:** A prototype of this instructional package is available for review. It is designed to train the decision maker in knowing when data collection can aid in the decision making process, and 2) knowing what information to communicate to the resource person so that an appropriate design is utilized and the data is analyzed meaningfully. Ample use is made of examples and simulations.

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**Title:** Evaluation Workshop I

**Author:** Stephen P. Klein, UCLA.

**Description:** Evaluation Workshop I is a structured 2 day workshop experience which, through the process of instruction, practice, feedback, and discussion, provides participants with an orientation to evaluation that is invaluable for informed educational decision making at all levels. The workshop materials are on display.

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**Title:** The Educational Information Consultant: Skills in Disseminating Educational Information

**Authors:** Bela Banathy, et al., Far West Laboratory for Educational Research and Development

**Description:** The EIC Program is designed to train individuals to: analyze and define an educator-client's information problem; plan and execute a search strategy; screen, sort, and package the information; communicate it to the client; and evaluate how effective the service has been. It is available in a Course form, a ten-day Institute form, and a self-instructional Learning Team form. Its modular format permits adaptations to specific audiences and contexts.

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**Title:** Determining Instructional Purposes Training Package

**Author:** Educational Management Program, Far West Laboratory for Educational Research and Development

**Description:** Determining Instructional Purposes is an instructional management training package designed to help school decision makers establish and validate the goals and objectives of their instructional programs. It consists of:

1. An orientation unit providing an overview of the processes of determining instructional purposes and describing the three units that deal with these processes.
  2. Three training units (Setting Goals, Analyzing Problems, and Deriving Objectives), each providing 10-15 hours training in the basic knowledge and skills involved in determining instructional purposes.
  3. A Coordinator handbook that presents procedural guides and suggestions for setting up and conducting a training program using one or more of the basic units.
-

**Title:** An Interviewing Training Module

**Author:** Emil Haller, Cornell University

**Description:** The module is designed to teach students the technique of research interviewing. The module requires a maximum of 3 classroom hours. It consists of 3 films, manuals, role-playing simulations and practice schedules.

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**Title:** Appraising Educational Research: A Case Study Approach

**Authors:** D. Bob Gowin and Jason Millman; Cornell University

**Description:** This self instructional material asks the learner, in a semi-structured format, to appraise critically each of nine research articles. Also provided are model critiques developed with the assistance of over 800 students from 27 colleges and universities.

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**Title:** Research-Based Techniques for Instructional Design

**Authors:** Eva Baker, UCLA; and Edys Quellmalz, SWRL

**Description:** The materials consist of 12 hours of instruction, text discrimination, and practice simulations designed to teach instructional materials developers to write first draft sequences incorporating given techniques.

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APPENDIX D

## MODEL D APPENDIX

Appendices for Model D (see report of model on pages 19-42) are available upon request under separate cover.

Instructional booklets developed under Model D are included under separate cover or available upon request.

Instructional Cassette Tape recordings developed under Model are included under separate cover or available upon request.

APPENDIX E

REPORT OF AERA SURVEY ON EVALUATION OF  
AERA EXPERIMENTAL TRAINING SESSIONS  
(OCTOBER, 1973)

Robert M. Stonehill

Laboratory of Educational Research  
University of Colorado

### Description of the sample

Copies of the questionnaire and cover letter signed by W. James Popham were sent to 600 AERA members according to a randomly selected mailing list supplied by William Russell at the AERA office in Washington, D.C. A sample copy of the questionnaire with indicated frequencies of response for each item and item means where appropriate is included at the end of this report.

The questionnaires were mailed from Boulder, Colorado on June 22, 1973. By August 6, 350 responses had been received. Of these, 11 were dropped from the study because they had been left blank or they consisted of empty envelopes.

Although anonymity was maintained on the questionnaire itself, a system of numbering the return envelopes enabled the researcher to keep track of who had responded to the survey. The questionnaires were removed from the envelopes as soon as the response was checked off.

On August 15 a follow-up mailing was sent to the 250 people who had not responded. Of these 250, 88 more responses were received, resulting in a total return of 438 (of which 427 were included in the data analysis), or 73% of the sample of 600.

The survey included the entire United States, with the subjects of the survey selected proportionately by state.

### Purpose of the survey

The purpose of this survey is to determine whether or not the present AERA training institutes (traveling institutes, short courses such as the pre-session and post-session offerings at the AERA annual convention in New Orleans, training materials exhibits and conversation hours) are addressing themselves to the AERA membership in the following ways:

1. Do they address themselves to members of all AERA divisions?
2. Are the topics offered representative of those with the highest level of interest among AERA members?
3. Are the various types of training institutes cost-effective from the point of view of the potential participant?
4. Are the times these institutes are being offered the most efficacious for those likely to attend?
5. Are those who attend various types of training institutes "typical" AERA members?



EQ.  
F

RETURNS

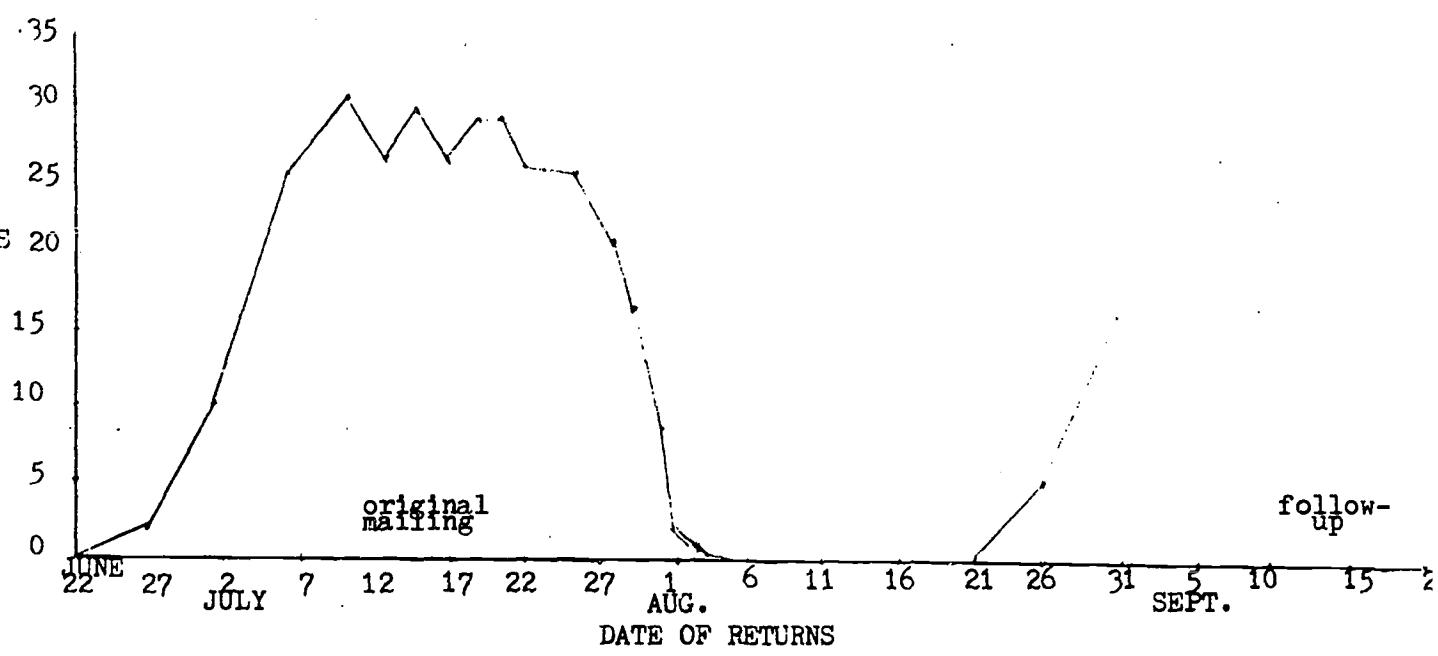


Table 1. Frequency of questionnaire returns vs. elapsed time from mailing.

Description of the respondents

There were no significant differences in response rates across different geographic regions of the country. Of the 438 responses, 11 were not included in the data analysis. Among the 427 remaining returnees, the dominant primary employment was in a college or university (266), followed by those employed in an elementary or secondary school system (59). The professional activity most often participated in was research or evaluation (335 people, with a mean of 32% of their professional time spent in that function) followed by instruction (274 people, with a mean of 45% of their professional time spent in instruction).

The predominant AERA division in which respondents held membership was Learning and Instruction (183), followed closely by Measurement and Research Methodology (176).

There seemed to be no significant differences between those respondents answering the first mailing and those answering the follow-up mailing. Many of those who did not respond the first time indicated on their follow-up return that they were away for the summer.

### Traveling Institutes

315 people were aware of the series of AERA sponsored traveling institutes, 266 of whom first heard of them through advertisements in Educational Researcher journal. Only 21 people first became aware of the traveling institutes through one page fliers distributed by AERA.

Of 315 people who were aware of the traveling institutes, only 16 actually attended any. The main reason cited for returnees not attending any traveling institutes was "I could not take off from my job long enough for the Institute (142)" and "the Institute in which I was interested was held too far from my home (103)." 90 people felt that the Institute cost more than they felt it would be worth. The least important reason for people not attending was that "the Institute directors were unknown or unimpressive to me," with 9 people responding to that category.

Contingency tables were used to examine further the characteristics of those who were aware of the series of traveling institutes and of those who actually attended traveling institutes (see Contingency Tables 1,2 and 4).

Across all types of employing institution, the percentage of those who were aware of the traveling institutes was not significantly different (chi-square = 13.6 with 5 degrees of freedom). The mean percentage of those aware of the traveling institutes was 73.8%. The State Department of Education category yielded the highest proportion of awareness (92.9%, or 13 out of 14) of the existence of the traveling institutes, followed by College or University (75.6%, or 201 out of 266).

The amount of people who attended any of the traveling institutes was extremely small as a percentage of the population sampled (16 of 427, or 3.7%). They did not belong to any clear cut type of employing institution, though no one from a Regional Laboratory or R & D Center or from a State Department of Education sampled had attended a traveling institute. A person attending a traveling institute seemed more likely to attend the annual AERA convention in New Orleans than a person who did not attend a traveling institute.

### Convention related activities (pre-session short courses, post-session short courses, mini-courses, conversation hours and training exhibits)

The number of respondents who had attended the AERA convention in New Orleans was 132, which was 30.9% of the sample. Of this number, 21 attended one or more training exhibits, 10 attended at least one mini-course, 26 attended one or more conversation hours, and only 8 attended either a pre-session or a post-session short course.

The primary reasons given for not attending any of the New Orleans training sessions were: inability to be in New Orleans at the time of the training sessions (171), inability to be in New Orleans early enough to attend a pre-session short course (68), and inability to remain in New Orleans long enough to take a post-session short course (62). 50 people found themselves too busy during the convention to attend a mini-course, conversation hour or training exhibit.

A contingency table analysis was performed comparing type of employing institution with awareness of pre-session or post-session short courses (see Contingency Table 3). 354 people (82.9%) were aware of the existence of the short courses. People employed in Regional Educational Laboratories or R&D Centers tended to have the smallest proportion (58.3%) of those aware of the short courses. 13 out of 14 employees of a State Department of Education (92.9%) and 232 out of 266 employees of a College or University (87.2%) were aware of the short courses. Non-awareness of the existence of the pre-session and post-session short courses did not seem to be a significant reason for people not attending them.

There was no contingency table analysis performed on those who attended pre-session or post-session short courses, since only 8 people attended any.

#### Recommended fee structure and time of year

In response to the question "During which times of the year are you most available to attend an AERA training session?", 218 people favored the summer-time and 144 favored winter. Only 95 people felt the springtime to be most efficacious, and fall was rated least desirable, with 89 people responding in that category.

People tended to feel that a fee structure of approximately \$25/day would be the most appropriate for an AERA training session. 231 people responded to \$20 - \$30 per day, with the frequency of response dropping drastically after that: 75 people checked \$30 - \$40, and only 1 person felt a fee of between \$60 and \$70 to be reasonable.

#### Recommended topics

The only open-ended question of the survey was a request for suggestions of topics that would be appropriate for an AERA-sponsored training session. Following is a list of the most frequently encountered suggestions:

Problems in test validity and reliability  
 Simulated research and evaluation problems in public schools  
 Problems of dealing with sex biases  
 Researching the difficult-to-measure variables in education  
 Specifying outcomes for humanistic programs  
 Program evaluation  
 Behavior analysis in education  
 Accountability systems for teacher training programs  
 Measuring learning outcomes  
 Management of instruction  
 English as a second language  
 Advanced topics in statistics and research design  
 Program planning  
 Test construction  
 Evaluation in affective areas (art, literature, etc.)  
 Multivariate statistics  
 Time Series Analysis  
 Use of computers to solve research problems

Many people suggested topics which were already being offered in AERA training institutes, such as non-parametric statistics. Other people expressed satisfaction with the range of topics offered, citing other reasons for their inability to attend.

#### Additional analyses

A random half of the sample were sent return envelopes with stamps affixed, while the other half were sent return envelopes with no stamp. All had return addresses, as well as a number to identify the respondent for purposes of the follow-up mailing. 187 returned pre-stamped envelopes while 163 returned envelopes which had not been stamped by the researcher. A chi-square analysis with 2 degrees of freedom failed to detect a significant difference between these two frequencies, and no return envelopes had stamps put on them for the follow-up mailing on August 15. This seemed in accordance with earlier studies (Brzezinski and Worthen), but cannot be generalized to all classes of questionnaire survey respondents. Most people on the faculties of colleges, universities, State Departments of Education and the Federal Government have mailing privileges.

At least two people wrote rather acerbic comments saying that AERA should have the decency to affix stamps if they expected people to do them the favor of filling out their questionnaires, but there is no way of knowing if anyone did not return their questionnaire for this reason.

CONTINGENCY TABLE 1: EMPLOYING INSTITUTION VS. AWARENESS OF TRAVELING INSTITUTES

<u>EMPLOYING INSTITUTION</u>	<u>AWARENESS OF TRAVELING INSTITUTES</u>		
	NOT AWARE	AWARE	
COLLEGE OR UNIVERSITY	65 (24.4%)	201 (75.6%)	266 (62.3%)
ELEMENTARY OR SECONDARY SCHOL SYSTEM	17 (28.8%)	42 (71.2%)	59 (13.8%)
REGIONAL EDUCATIONAL LABORATORY OR R & D CENTER	6 (50%)	6 (50%)	12 (2.8%)
STATE DEPT. OF EDUCATION	1 (7.1%)	13 (92.9%)	14 (3.3%)
FEDERAL GOVERNMENT	4 (44.4%)	5 (55.6%)	9 (2.1%)
OTHER	19 (28.3%)	48 (71.7%)	67 (15.7%)
	112 (26.2%)	315 (73.8%)	427 (100%)

CONTINGENCY TABLE 2: EMPLOYING INSTITUTION VS. ATTENDANCE OF TRAVELING INSTITUTES

ATTENDANCE OF  
TRAVELING  
INSTITUTE

	NO	YES	
COLLEGE OR UNIVERSITY	256 (96.2%)	10 (3.8%)	266 (62.3%)
ELEMENTARY OR SECONDARY SCHOOL SYSTEM	58 (98.3%)	1 (1.7%)	59 (13.8%)
REGIONAL EDUCATIONAL LABORATORY OR R & D CENTER	12	0	12 (2.8%)
STATE DEPT. OF EDUCATION	14	0	14 (3.3%)
FEDERAL GOVERNMENT	8 (88.9%)	1 (11.1%)	9 (2.1%)
OTHER	58 (93.5%)	4 (6.5%)	62 (14.5%)
	411 (96.3%)	16 (3.7%)	427 (100%)

CONTINGENCY TABLE 3: EMPLOYING INSTITUTION VS. AWARENESS OF PRE-SESSION AND POST-SESSION SHORT COURSES

	<u>AWARENESS OF</u> <u>SHORT</u> <u>COURSES</u>		
	NOT AWARE	AWARE	
COLLEGE OR UNIVERSITY	34 (12.8%)	232 (87.2%)	266 (62.3%)
ELEMENTARY OR SECONDARY SCHOOL SYSTEM	13 (22%)	46 (78%)	59 (13.8%)
REGIONAL EDUCATIONAL LABORATORY OR R & D CENTER	5 (41.7%)	7 (58.3%)	12 (2.8%)
STATE DEPT. OF EDUCATION	1 (7.1%)	13 (92.9%)	14 (3.3%)
FEDERAL GOVERNMENT	3 (33.3%)	6 (67%)	9 (2.1%)
OTHER	17 (25.4%)	50 (74.6%)	67 (15.7%)
	73 (17.1%)	354 (82.9%)	427 (100%)

CONTINGENCY TABLE 4: ATTENDANCE OF ANNUAL AERA CONVENTION (NEW ORLEANS) VS. ATTENDANCE OF TRAVELING INSTITUTES

<u>ATTENDANCE OF TRAVELING INSTITUTE</u>	<u>ATTENDANCE OF AERA CONVENTION</u>		
	NO	YES	
NO	286 (69.6%)	125 (30.4%)	411 (96.3%)
YES	9 (56.3%)	7 (43.8%)	16 (3.7%)
	295 (69.1%)	132 (30.9%)	427 (100%)



AMERICAN EDUCATIONAL  
RESEARCH ASSOCIATION

Dear Colleague:

During 1972 and 1973, AERA has conducted several experimental methods for providing training opportunities in research and research-related areas. These methods include traveling institutes, experimental presessions held in conjunction with the annual meeting, and new training opportunities at the annual meeting (e.g., mini-courses, conversation hours, and exhibits of training materials).

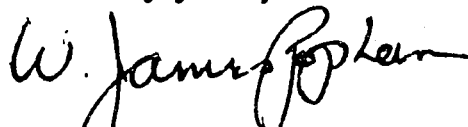
The AERA Research Training Committee is currently evaluating these experimental training methods to assist in the planning of subsequent training sessions to be sponsored by AERA. Your name was drawn as one of a small random sample of AERA members from whom we are eliciting information for that evaluation. As the committee member responsible for this evaluation, I would like to ask you to help us by filling out and returning the enclosed questionnaire, whether or not you have participated personally in any of the experimental training sessions.

The questionnaire is brief and should take only a few moments to complete. I know your time is limited, but your response is important to our committee in completing this evaluation and I hope you will take the time necessary to help in this endeavor.

The number included on the questionnaire is only for purposes of checking off those who have responded. Your reply will be held in strict confidence and, to insure that, all numbers will be removed from incoming questionnaires as soon as they are checked off. The analysis and tabulation of responses will be done for us by the Laboratory of Educational Research at the University of Colorado, and all completed questionnaires should be returned directly to them.

Please return the questionnaire in the enclosed addressed envelope. The committee and the Association will be grateful for your response.

Sincerely yours,



W. James Popham, Chairman  
AERA Research Training Committee

Enclosures



{ } = frequency of response  
 { } = mean of that variable

EVALUATION OF AERA EXPERIMENTAL TRAINING SESSIONS

Directions: Please read each question carefully and please be completely candid in your responses. Your name will never be associated with the responses you provide.

1. Your primary employment is presently in a (check ONE):
- (266) college or university
  - (59) elementary or secondary school system
  - (12) regional educational laboratory or R&D center
  - (14) state department of education
  - (9) Federal government
  - (6) Other (please specify)
2. What portion of your professional time do you spend in each of the following activities:
- |                                    |      |                             |           |
|------------------------------------|------|-----------------------------|-----------|
| (274) Instruction                  | 45 % | Administration              | 37 %      |
| (168) Development or Dissemination | 28 % | Student (formally enrolled) | 45 %      |
| (335) Research or Evaluation       | 32 % | Other                       | (59) 35 % |

3. Please check the AERA Division(s) in which you presently hold membership (check any that apply):

- (78) A. (Administration)
- (130) B. (Curriculum and Objectives)
- (183) C. (Learning and Instruction)
- (176) D. (Measurement and Research Methodology)
- (47) E. (Counseling and Human Development)
- (3) F. (History and Historiography)
- (53) G. (Social Context of Education)
- (80) H. (School Evaluation and Program Development)
- (29) Student member

4. Were you aware of the AERA-sponsored series of Traveling Institutes (courses in research, evaluation, or related topics, repeated in various parts of the country)?

(315) YES (112) NO

- a. If YES, where did you first hear of the Traveling Institutes? (check ONE)
- (266) Educational Researcher journal
  - (21) single-page "flyer"
  - (27) other (please specify) \_\_\_\_\_

b. If NO, skip to question 6.

5. Did you attend any of the Traveling Institutes?

(15) YES (41) NO

- a. If YES, which one(s) did you attend?
- |             |            |
|-------------|------------|
| _____       | _____      |
| (Directors) | (Location) |
| _____       | _____      |
| (Directors) | (Location) |

b. If NO, please check below your reason(s) for not attending (you may check up to THREE):

- (80)      The topics offered did not meet my needs or were uninteresting to me.
- (90)      The Institute cost more than it seemed to be worth.
- (142)      I could not take off from my job long enough for the Institute.
- (103)      The Institute in which I was interested was held too far from my home.
- (65)      I had a previous commitment which prohibited my attending the Institute in which I was interested.
- (9)      The Institute directors were unknown or unimpressive to me.
- (43)      Other (please specify) \_\_\_\_\_

6. Did you attend the annual AERA convention in New Orleans?

(132)      YES      (295)      NO

7. Whether or not you attended the annual convention, were you aware of the pre-session and/or post-session short courses offered by AERA in New Orleans?

(354)      YES      (73)      NO

8. Did you attend any pre- or post-session short courses?      (8)      YES (419)      NO

a. If YES, which one(s) did you attend? \_\_\_\_\_

9. If you were in New Orleans at the time of the annual meeting, did you attend any training exhibits, mini-courses or conversation hours?

<u>Training exhibits</u>	<u>Mini-courses</u>	<u>Conversation Hours</u>
(21) <u>    </u> YES (406) <u>    </u> NO	(10) <u>    </u> YES <u>    </u> NO (417)	(26) <u>    </u> YES (401) <u>    </u> NO

10. If you did not attend any training courses in New Orleans, please indicate your reasons for not attending (please indicate all reasons that apply):

- (171)      I could not be in New Orleans at the time of the training sessions.
- (68)      I could not be in New Orleans early enough to take a pre-session short course.
- (62)      I could not remain in New Orleans long enough to take a post-session short course.
- (33)      I did not find that any of the offered topics was relevant to my needs.
- (50)      During the convention, I was too busy to attend a mini-course, conversation hour, or training exhibit.
- (4)      The people offering the courses were unknown or unimpressive to me.
- (52)      Other (please specify) \_\_\_\_\_

11. During which times of the year are you most available to attend an AERA training session?

(144)      WINTER      (95)      SPRING      (218)      SUMMER      (89)      FALL

12. What do you think would be the most appropriate fee structure per day for an AERA training session?

(231) \$20-30      (75) \$30-40      (43) \$40-50      (4) \$50-60      (1) \$60-70  
 $\bar{x} = \$25/\text{day}$

13. If you could choose, what topic(s) would you suggest for an AERA-sponsored training session?

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THANK YOU FOR YOUR COOPERATION