DOCUMENT RESUME

ED 037 774   CG 005 179

AUTHOR   Towne, Douglas C.
TITLE   A Simulation Approach to Training Linkers.
INSTITUTION   American Educational Research Association,
                Washington, D.C.; Tennessee Univ., Knoxville. Coll.
                of Education.
PUB DATE   6 Mar 70
NOTE   19p.; Paper presented at the American Education
                Research Association Convention, Minneapolis,
                Minnesota, March 2-6, 1970

EDRS PRICE   EDRS Price MF-$0.25 HC-$1.05
DESCRIPTORS   *Information Utilization, Innovation, Inservice
                Education, *Institutes (Training Programs), *Rural
                Education, *Simulation, *Vocational Education

ABSTRACT
        One of seven coordinated inservice institutes to be
conducted during 1970 for vocational education and related personnel
representing rural areas of the United States is discussed. This
specific institute was concerned with the procedures of application
of innovations resulting from research and development programs. The
program relies primarily upon simulation activities and establishment
of close working relationships between persons representing
information utilization and those from vocational education. Also
discussed are the experiences of the cooperative approach followed in
developing, submitting, funding, recruiting, and conducting these
coordinated institutes. Involved in this cooperative venture are
agencies from seven states, a national center, and the U.S. Office of
Education. (author)

A Simulation Approach to Training Linkers *

Douglas C. Towne,
College of Education
University of Tennessee
Knoxville, Tennessee

ABSTRACT

The activity to be presented and discussed is one of seven coordinated inservice institutes to be conducted during 1970 for vocational education and related personnel representing rural areas of the United States. This specific institute is concerned with the procedures of application of innovations resulting from research and development programs. Its training activities will bring vocational education researchers and practitioners together with information science researchers in order to develop and test procedural models of facilitating educational change based upon optimum utilization of existing information. The program relies primarily upon simulation activities and establishment of close working relationships between persons representing information utilization and those from vocational education. Also to be discussed are the experiences of the cooperative approach followed in developing, submitting, funding, recruiting, and conducting these coordinated institutes. Involved in this cooperative venture are agencies from seven states, a national center and the U.S. Office of Education.

Many years ago, Niccolo Machiavelli stated that, "There is nothing more difficult to take in hand, more perilous to conduct, or more uncertain in its success, than to take the lead in the introduction of a new order of things." My experiences with the topic for discussion today leads me to take issue with the statement. Our discussion deals with a topic perhaps even more difficult; training individuals who will, in turn, "Take the lead in the introduction of a new order of things".

In this paper, I shall present and discuss our activities in attempting to bring about new <u>processes of change</u> as opposed to specific <u>program changes</u>. In doing this, I should like to provide first of all some background information which will clarify just how this activity came about and its relationship to several other major change activities which have been and are now in operation. Secondly, I should like to spend a brief period of time explaining the purpose, objectives, and procedures of this training activity and thirdly, I shall explain in relative detail the activities which have gone into this institute to this point in time and the activities which remain to be performed.

Before dealing with the matter at hand, however, I should like to clarify the title of this presentation. It is entitled, "A Simulation Approach to Training Linkers". This bothers me somewhat in that it uses the word simulation in its broadest sense as opposed to the more narrow sense presently in vogue. Simulation as used herein refers to the act or process of pretending; feigning. This definition differs from the more sophisticated simulation efforts reported elsewhere during this convention. We have not been able to develop the comprehensive and in-depth models through which individuals can be led in a systems-like process in a relatively abbreviated period of time. I should like to justify this rather unsophisticated use of the term simulation by stating that the major objective of the institute is development of models which might in the future be utilized in developing simulation activities. That is to say that the participants attending this workshop are expected to develop new models for implementing change, and if we were to use simulation activities with old models to any great extent, we would perhaps be defeating this more important objective. It was, however, requested that both simulation and model development be incorporated in this particular workshop. With this brief apology behind us, let us move now into the first part of the presentation; a very abbreviated description of major events leading to this workshop.

During the first week of May, 1970, an institute will be conducted in Pittsburgh, Pennsylvania, entitled "Rural Area Applications of Vocational Education Innovations Resulting from Research and Development Programs." This workshop is part of a larger effort which represents the cooperative activities of various agencies and personnel. In order that we may better appreciate the efforts of this particular institute, it seems desirable to place it in its appropriate perspective.

The institute is one of seven which together have been given the foreboding acronym of NITMIVOREPRA. The <u>N</u>ational <u>I</u>nservice <u>T</u>raining <u>M</u>ultiple <u>I</u>nstitutes for <u>V</u>ocational and <u>Re</u>lated <u>P</u>ersonnel in <u>R</u>ural <u>A</u>reas is a project of the Southwide Research Coordinating Council, offered through the Center for Occupational Education of the North Carolina State University at Raleigh. The program is under the sponsorship of the Organization and Administration Studies Branch, Division of Comprehensive and Vocational and Technical Education, Bureau of Adult, Vocational and Library Programs at the Bureau of

Educational Personnel Development, U. S. Office of Education. (All work in connection with this program is performed pursuant to a contract with the United States Office of Education.)

I beg your indulgence in allowing me a few minutes to relate some of the key events which led to this institute. I feel that these events are very relevant to the topic of this symposium and will clarify the rationale used in developing and conducting the institute in the manner to be described. At the same time, these events will illustrate several other attempts to establish change agents and knowledge linkers.

In December of 1963, the federal government passed an act known as the Perkins Bill or the Vocational Education Act of 1963. This act stipulated that ten percent of program monies were to be utilized in research activities. Shortly after monies were appropriated, it became clear that the field of vocational education lacked the necessary research personnel to fully utilize funds. As is true of much of education, there just was not an adequate background of research orientation.

To facilitate better utilization of the monies available, there came into being a concept known as the Research Coordinating Unit, or more commonly referred to as the RCU. Under USOE encouragement there were established state level RCU's in most states. The purpose of the RCU was to stimulate research and research related activities designed to improve vocational and technical education throughout the nation. Each of the units was designed to meet the perceived needs of their particular state. This movement of founding RCU's began in 1965.

Also in 1965 there was founded a second national center concerned with research, development, and leadership in occupational education. This center, known as the Center for Occupational Education (COE) is located in North Carolina State University at Raleigh. Already in operation at that time was the original center located at Ohio State University in Columbus.

In 1966 the COE and the directors of the RCU's in fifteen southeastern states organized together for two purposes. The first purpose was to serve as an advisory group in providing direction to the Center for Occupational Education. The second was to share experiences and cooperate in our efforts to serve as change agents in occupational education. This organization was named the Southwide Research Coordinating Council (SRCC) and included a few additional members representing regional laboratories and research and development centers also located in the southeastern region.

The SRCC served well its intended functions. Several members, however, were anxious to try the relatively informal organization in some major activity which might return greater benefits. Its first attempt was to aid the Southern Association of Colleges and Schools in establishing an accrediation branch concerned with occupational education. With this achievement behind us, we were challenged to even greater efforts.

An opportunity presented itself in December of 1968 when the USOE shifted from its usual procedure of funding many separate and distinct training institutes. In their Request for Proposals which were made available at that time, they asked for three Multiple Institutes -- two concerned with vocational education in urban areas (each consisting of ten institutes of one or two weeks duration) and one concerned with rural areas, which included seven institutes also of one or two weeks duration. In addition to these trial multiple institutes they continued to sponsor other individual institutes.

The SRCC membership felt that the southeastern region had ample justification in trying to obtain the rural area multiple institute contract. Seven of the RCU directors, in cooperation with the COE, prepared and submitted a proposal. Each of the seven RCU directors prepared a proposal for one institute with the Center adding the connecting links. This was accomplished within three months (January to March, 1969) with only two meetings of the entire group -- the first to establish agreement and lay the ground rules and the second concerned with revision and polishing of the proposal elements.

We were notified of approval in May, 1969. (After negotiations, the total amount involved was approximately a quarter of a million dollars.) Several activities have transpired since that time, including conducting two of the seven institutes.* These activities which followed approval of the proposal are relevant to our concerns here today and will be presented in conjunction with the description of institute activities.

This institute will be conducted during the first week of May this year. The entire institute and its related activities could be perceived as an exercise in simulation. We are casting our fifty-five participants in various roles ranging from the client interested primarily in the product, i.e., program improvements, to the consultants unfamiliar with the content of the field but expert in the relevant processes. They are all perceived as experts in their own field and little effort will be expended in attempting to increase their particular type of expertise. The major effort will be in establishing communication and understanding between these various groups of experts toward the end of developing new models of information utilization in educational change.

Our group of participants may be classified into three categories: (a) he consultants who are experts in information utilization, simulation, and educational change; (b) the clients who are experts in occupational education in rural areas; and (c) the interpreters familiar with both areas of expertise. (This latter group, the interpreters, might be likened to the "jack-of-all-trades but master of none".) These persons will be exposed to each other continually from Sunday evening to Friday noon.

This institute is seen as a simulation of a client group utilizing the services of consultants in solving a problem. This point will be clarified in a moment as the specific objectives are discussed.

---

*See appended page for complete listing of all institutions.

The client group will be the interpreters and occupational education experts and include fifty-two (52) persons from fourty states. The experts in information utilization and educational change are:

> Dr. Ronald Havelock, Project Director, Center for Research on
>   Utilization of Scientific Knowledge, University of Michigan.

> Dr. Alan Kent, Director, Knowledge Availability Systems Center,
>   University of Pittsburgh.

> Dr. Clarence Williams, formerly Chairman, National Conference
>   on Visual Literacy, University of Rochester.

(I could spend some time on why these particular persons were selected, but let it suffice to say that I had observed each of them in situations which proved to me that they unquestionably possessed the necessary expertise; but more importantly, they were able to communicate this expert knowledge to those without a great deal of experience in their field.) The interpreters that I mentioned are largely those representing RCU's and other agencies which have devoted much of their efforts to information utilization activities.

With this brief explanation of when, where, and who, let us move to the next question -- why. The general objective of Institute V is to bring researchers and practitioners from vocational education together with researchers from the fields of educational change, information science, and simulation, in order to develop and test models for the application of vocational education innovations resulting from research and development programs.

The objectives are listed in two ways. The first listing, on the left, describes the simulated product our participants will develop as a method of exposing them to information utilization in educational change. The experiences provided in this product development will vary from first-hand, real experience, to simulated experiences, to relatively abstract discussions. Listed to the right of these objectives are the same objectives stated in process terms which describe the major elements of the models to be developed. The first listing describes the experiences the participants will take part in before and during the institute in our efforts to acquaint them with information utilization in educational change. The second listing outlines the major elements to be included in the models to be developed.

The objectives are to demonstrate the process of initiating reasoned and planned changes within the home setting and will:

Simulated Product Objectives	Process Model Objectives
1. Describe the needs of a specific client group.	1' Devise and state the strategy of need clarification.
2. List changes needed on the part of clients in improving their role performance.	2' Describe process of identifying needed changes.
3. Select sources of information with potential solutions.	3' Describe rationale for locating potential sources of solutions.
4. Exploit, i.e., utilize the information systems.	4' Describe relevant search strategies.
5. Interpret applicability of identified information resources.	5' Describe method of evaluating information obtained.
6. Fabricate a solution to the stated needs.	6' Describe methods of solution fabrication and feedback.
7. Implement fabricated solution.	7' Devise and describe methods of implementation.
8. Stabilize innovation.	8' Devise and describe methods of monitoring.

These models will be described in both heuristic and narrative terms. Some models may concentrate on different aspects of this process while others may deal with all elements. In my summary, I will refer back to these objectives and clarify their relationships to the activities, materials, and personnel.

Dependent upon the problems brought to the institute by the various participants the models to be developed are expected to be oriented to one of two approaches: (a) a model designed along the lines of problems in search of solutions or (b) a model oriented to solutions in search of problems. The first approach may be best illustrated as a client group with an expressed need becoming involved with a change agent. The role of the change agent, therefore, is to facilitate the process of problem solution. The second approach may best be illustrated as a dissemination technique wherein new research and developmental reports and findings are distributed to a specific audience with the hope that something contained within will relate to a particular problem of one or more of the recipients.

These objectives illustrate clearly the distinct need for experts representing the fields of information science and educational change. The simulation expert will be utilized in two ways. The first way is to provide instruction on how simulation can be used to test the models which

have been developed at the institute. The other is to provide simulation exercises in already existing models as part of acquainting participants with processes of information utilization and educational change. The second will be our primary approach because of the relative priorities I have placed among the various objectives of our institute. In my opinion it is much more important that we devote time to development of new models which might be tested more throughly at a later time. That is to say that any time devoted to simulation exercises to test models developed at the institute will be time taken from further refinement of the same models. The models developed will be evaluated at the end of the week, not through simulation exercises, but rather through expert judgements on the part of the interpreters and the representatives of information science and educational change.

Let me digress for just a moment to clarify a particular point of interest. As a part of the RCU movement, national meetings were held which were attended by directors of the various RCU's. At one of these meetings the intent was to present and discuss change processes as they might apply to the RCU concerns. This meeting did not achieve its purposes for various reasons. In my estimation the major reason was a lack of effective communications between the presenters and the audience. In our institute we are attempting to overcome this difficulty by utilizing the experts in close association with the participants throughout the entire period of the institute. Our experts will not come before the group merely for presentation and then immediately depart after a few brief questions, but rather they will be involved in the total process from the beginning to the end. Another drawback of this national meeting of RCU directors was its abstract orientation. The presenters had some difficulty in illustrating major concepts in terms relevant to the audience. The audience also had difficulty in conveying their problems in terms understandable to the presenters. We hope to avoid this trap by providing orientation to our consultants and by utilizing the interpreters in key roles.

Two planning sessions have been held with our consultants designed in part to acquaint them with vocational education in rural areas. In addition, materials will be made available to them so that they might better understand some of the problems and ramifications or rural vocational education.

The same problems of orientation exist on the part of the participants and so there are parallel activities which will take place prior to the institute which are designed to develop familiarization with the fields of educational change, information science and simulation.

As mentioned earlier, my primary goal in this institute is to develop various models for implementation in facilitating reasoned change within occupational education. Of secondary importance are the simulation exercises and evaluation of the models developed. It is my opinion that such simulation exercises and evaluations are better delayed to another time when resources can be devoted to an adequate development of simulation and evaluation procedures.

Now that we have discussed when, where, who, and why, let us move to the more interesting aspect of just how this will all be accomplished. In the development of the proposal last winter I had contacted each of the three consultants. They agreed to serve and also agreed to attend a planning session early in the summer of 1969. This first planning session was held in Knoxville, Tennessee, during the month of July. Attending this meeting were Havelock, Kent, Williams, Towne, and Dr. Charles Rogers representing the Center for Occupational Education. Initial plans were made at that time and responsibilities identified. A rather drastic revision of the original proposal procedures was developed which made the workshop much more practical and applied. This reaffirmed my judgement in selecting these persons, for usually we criticize experts from outside our field as being too "theoretical" or abstract. These particular persons brought my line of thinking down to a more applied and useful level. At this initial meeting we discovered that enough time had not been alloted and another meeting would be required. This second meeting was held in December of 1969.

At the initial planning meeting, it was indicated that clarification of the problems being faced by vocational education in rural areas should be identified and defined. This agreed with our original intent in the general proposal in that we had planned a visit to each state within the continental boundaries of our nation. These visits were intended to accomplish two purposes. The first was to identify and clarify problems being faced by vocational education in rural areas. The second was to identify nominees who would be invited to apply for participation in the seven institutes. The topics of the seven institutes and the general objectives of each had been stipulated in the Request for Proposals, however, the U.S. Office of Education was most agreeable and encouraged us in our attempts to gain more information on the exact problems being faced by occupational educators in rural areas. They recognized that there might exist a discrepancy between the actual problems being faced and those they felt were important. They were agreeable in addition to revision of these institutes on the basis of our findings. This was a bit artificial in that commitments had already been established in the writing of the proposal, however, several changes have been made and will continue to be made as new information becomes available.

In our visits to the states to determine problems and identify nominees, it was decided that the primary agency to be involved would be the State Department of Education and its division of vocational technical education. This decision resulted primarily from our interpretation of the 1968 Ammendments to the Vocational Education Act of 1963. In these ammendments the state department was given much greater responsibility and freedom in utilizing vocational education monies to improve their programs. With this additional responsibility, it was decided that they should be our primary clientele. We therefore arranged for visits to each of these state departments of education during the fall of 1969. The problems identified through these visits have been made available to institute staff and are being prepared into a

brochure which should be helpful not only in this years series of institutes but also in planning institutes for future years. The nominees identified were asked to submit applications and participants were selected during the months of December and January.

Another input to the overall series of institutes consisted of development of background papers which would be available to all participants and consultants involved in these activities. These papers included the first and second "Annual Report of the National Advisory Council on Vocational Education"; a monograph entitled "The Changing Educational Needs of Rural People" by Dr. C. E. Bishop; a "Review and Synthesis of Research on Vocational Education in Rural Areas" by Dr. B. Eugene Griessman and Dr. Kenneth G. Densley; and selected portions of some of Dr. Havelock's recent writings. These materials will be available to all participants prior to or at the beginning of each institute.

The way they will be utilized in Institute V is to provide background orientation to the various participants in the areas with which they are, to some degree, unfamiliar. That is, I would expect our consultants in information science and simulation and educational change to become familiar with the materials dealing with occupational education whereas the participants representing occupational education would become better acquainted with Havelock's materials and the "Review and Synthesis of Research".

In addition to these pre-institute activities, it was decided that self-directed simulation exercise on the part of the occupational education participants would be desirable. We are requesting that each of the participants identify a specific problem with which they are now faced and utilize one or more of a selected number of information services in obtaining relevant information. The experiences they gain through this simulation exercise will serve as our "jumping off point" for institute activities. In addition, selected problems will be further developed into simulation exercises to which the participants will be exposed at the institute.

In these pre-institute problem solving activities, the participants will be asked to utilize the information services of ERIC (Educational Products Information Exchange), RIS (Regional Information System), RISE (Research and Information Services for Education), SRIS (School Research Information Service), the National Referral Center for Science and Technology, the Clearinghouse for Federal Scientific and Technical Information, or any other source of information they think might be relevant. These other sources might include libraries, persons, or any one of several other possibilities. A copy of their letter to this particular information service will be sent to the institute staff. The institute staff will then select problems which would illustrate a more efficient or productive utilization of available information services.

With this background of pre-institute activities, let us now move into a description of the specific activities which will take place during the first week in May at the University of Pittsburgh.

You will recall that I stated a major goal of the institute is the development of communications and interaction between the various participants. Towards this end we begin our weeks activities with a social hour,

Sunday evening, May 3. The social hour, hopefully, will begin to establish a comradeship among all participants, which should prove most beneficial in the activities to follow. Monday morning a keynote address will outline the overall purposes and procedures of the institute. Hopefully this keynote address will not involve too much time but rather will be designed to orient the participants to the objectives we hope to accomplish, to summarize very briefly the types of materials to be presented and thirdly, to allow participants feedback in any revisement they feel might be desirable in the planned activities.

This keynote address will be followed by a review of experiences in problem solving through the utilization of the selected information services. The participants will be asked to relate their experiences in utilizing information sources in solving problems in small groups which will be observed by our interpreters and our experts from the three fields. These small groups will identify the benefits and disadvantages they experienced in utilizing these various information services. In addition, the experts from the three fields will be oriented to the types of problems faced by occupational educators in solving problems through the use of existing information services.

Monday afternoon will involve a report on the part of the small group chairmen and the three experts regarding their perceptions of the problems being faced in utilizing information. This will identify some of the major areas of concern for inclusion in model development. Later, that same afternoon, a simulation exercise will be presented in the proper utilization of ERIC retrieval services. While the group is being directed in the retrieval processes normally conducted to identify ERIC documents, the same problem will be teletyped to North Carolina State University where a computer has been programmed to conduct complete searches of all ERIC materials. The result of this computer search will be teletyped to Pittsburgh, probably within a matter of minutes. Differences between these two search techniques, one utilizing the RIE and ERIC indices and the other utilizing a computer program, will be presented and discussed. (These differences not only include time involved, but also number of documents identified. For with the indices and RIE's only major descriptors can be utilized whereas with the computer search both major and minor descriptors can be incorporated, thereby, resulting in a larger number of documents being identified.) In addition, Dr. Williams will present a paper on the role of simulation in developing and testing information services utilizing research and development documents.

The second day will be devoted primarily to presentations by Havelock and Kent dealing with the change process and proper utilization of information services. These presentations are designed to elicit maximum participant involvement and will most likely need to be carried over into the first part of the Wednesday session. The latter part of Wednesday will be devoted to initial development of the models. This will begin with a discussion of the types of problems for which models need to be developed and

will incorporate input by all participants; consultants, interpreters and clients. Small groups will be assigned on the basis of this discussion to deal with the various approaches for which models need to be developed. The interpreters and consultants will then be available to each small group and will be deeply involved in the development of each and every model. This model development will carry through into Wednesday evening and all day Thursday. By the end of Thursday, the models will be turned over to secretaries for typing and reproduction for distribution early Friday morning. A panel of reactors, Friday morning, will then evaluate and illustrate short-comings and strong points of each of the models. The participants will then be exposed to the results of all other participants and at that time they may make their own judgements as to the relative merit of each model to their particular situation. It is hoped that these models will not only repre-sent various techniques applicable at the state level, but also might in-clude models for regional cooperation or for utilization at local levels. The models will also represent both the problems in search of solutions approach and the solutions in search of problems approach. (It is difficult to guarantee these results, however, since we are going to allow tailoring of activities to the expressed needs and desires of the participants at the institute.)

In addition to these formal activities a resource center will be avail-able for use during free time wherein participants may be exposed to simu-lated utilization of various information services. Each of the aforemen-tioned information services have been requested to provide materials which may be utilized in two manners. The first is that each participant will be given the necessary materials for appropriate exploitation of the service. In addition, each of these services has been requested to provide the materials necessary to illustrate the complete search and retrieval process available.

Let me illustrate this last activity. With ERIC we will have a complete set of all RIE's, all CIJE's and the thesaurus and indices available. Simu-lated work exercises will have been developed prior to this time which will illustrate appropriate utilization of each service. The participant will thereby be able to follow a search process from problem statement to docu-ment identification. In this way participants will be able to assess these various processes and their relative merits in relation to the models they will develop.

The institute will then be adjourned at noon Friday, May 8. The con-sultants and the interpreters will be asked to remain during the afternoon of this day to further explore possible utilization of the models developed.

A final set of activities which are expected to transpire, but which are not at the present planned, will be those activities following the institute. I would expect that as a result of this continuous and in-depth exposure to each other that certain relationships should be developed which will lead to future lines of cooperation between the experts representing all areas: occupational education, information science, simulation and educational change. These activities are not preplanned but the consultants have been asked to expect such requests for further cooperative activities.

SUMMARY

In summary, let me refer to the specific objectives mentioned earlier. You will recall that eight objectives were listed as both "Simulated Product Objectives" and "Process Model Objectives". These objectives may be abbreviated as 1) Client Needs, 2) Required Changes, 3) Selecting Information Systems, 4) Exploiting Information Sources, 5) Interpreting Information, 6) Fabricating Solution, 7) Implementing Solution, 8) and Stabalizing Innovation. These abbreviations of the two types of objectives will be utilized in summarizing the various personnel, materials, and activities incorporated in this institute.

Listed below are the eight specific objectives and the institute personnel primarily responsible for each. The names listed in parenthesis indicate secondary responsibility. The first statement of objective refers to the simulation product objective; whereas, the second refers to the process model objective. (Williams and the interpreters will be involved in varying degrees with all eight of these objectives.)

Client Needs - Havelock (Kent)
1. Describe the needs of a specific client group.
1^1 Devise and state the strategy of need clarification.

Required Changes - Havelock (Kent)
2. List changes needed on the part of clients in improving their role performance.
2^1 Describe process of identifying needed changes.

Selecting Information Systems - Kent (Havelock)
3. Select sources of information with potential solutions.
3^1 Describe rationale for locating potential sources of solutions.

Exploiting Information Sources - Kent (Havelock)
4. Exploit, i.e., utilize the information systems.
4^1 Describe relevant search strategies.

Interpreting Information - Kent, Havelock, and Interpreters
5. Interpret applicability of identified information resources.
5^1 Describe method of evaluating information obtained.

Fabricating Solutions - Havelock
6. Fabricate a solution to the stated needs.
6^1 Describe methods of solution, fabrication, and feedback.

Implementing Solution - Havelock
7. Implement fabricated solution.
7^1 Devise and describe methods.

Stabilizing Innovation - Havelock
8. Stabilize innovation.
8^1 Devise and describe methods of monitoring.

TABLE 1. Relationships of Materials and Activities to Institute Objectives

Materials	Client Needs	Required Changes	Selecting Information Systems	Exploiting Information Systems	Interpreting Information	Fabricating Solutions	Implementing Solutions	Stabilizing Innovations
1. Statement of Problems - State Depts. of Educ.	X	X						
2. Background Papers	X	X						
3. *Model Testing through Simulation	X	X	X	X	X	X	X	X
4. Information Services Descriptive Materials			X	X				
5. Information Services Simulation Exercises*			X	X	X			
6. Developed Models	X	X	X	X	X	X	X	X

(Column group heading: OBJECTIVES)

* By Dr. Williams

-13-

TABLE 1. Relationships of Materials and Activities to Institute Objectives (Continued)

Activities	Client Needs	Required Changes	OBJECTIVES Selecting Information Systems	Exploiting Information Systems	Interpreting Information	Fabricating Solutions	Implementing Solutions	Stabilizing Innovation
1. Planning Sessions	X	X						
2. Pre-institute Problem Solving	X	X	X	X				
3. Keynote address*		X		X				
4. Review of Client Pre-institute Activity	X	X	X	X				
5. ERIC Simulation Exercise			X	X	X			
6. Havelock's Presentation	X	X				X	X	X
7. Kent's Presentations			X	X	X			
8. Resource Center**			X	X	X			
9. Small Group Model Development	X	X	X	X	X	X	X	X
10. Reactor Panel					X	X		
11. Consultants and Interpreters Session-Friday p.m.						X	X	
12. Post-institute Activities							X	X

-14-

In Table 1 the materials and activities are listed and their relationship to the specific objectives are indicated with an X. As you will notice, most materials and activities relate to the first five specific objectives. The last three have fewer materials and activities directly contributing to their accomplishment. This fact derives from the initial overall purpose of Institute V; namely, to bring together vocational education researchers and practitioners with information science researchers in order to develop and test models for the application of vocational education innovations resulting from research and developmental programs. Our emphasis, therefore, is directed to the first five phases of this change process. These first five phases relate most directly to the relationship between information and educational change. The models developed will either incorporate all eight phases or will specialize on a selected number of these phases. Table 1, therefore, summarizes very briefly the overall objectives and procedures related to our institute.

I would like to conclude this presentation by making several recommendations which I feel are justified from the basis of the experiences we have so far undergone.

1) I would like to see the multiple institute idea continued with certain changes. Among these changes would be a greater freedom for institute development on the basis of problems identified. That is to say, I would like to see such a proposal developed wherein the first step was to survey the need for various types of training activities and upon the basis of these needs, specific institutes would be developed. In addition, these institutes would be able to provide greater coordination and more obvious relationship among each of them.

2) Rather than attempting to identify participants from many states to attend a particular institute, I would prefer that we identify teams of individuals to attend. This team approach was one of our original intentions but from the standpoint of the team representing a state through individual participation in separate institutes. This has certain drawbacks but it does overcome some of the major disadvantages of individual unrelated institutes in that a member of one institute may interact with members from his same state who participated in other institutes. This team approach could be improved, however, by having a team of participants attend the same institute with the idea that the team would then go back to their home locality and implement that which was developed during the institute itself. This would, of course, result in fewer states being represented but the product, hopefully, would have a much greater likelihood of being implemented.

3) I would recommend that this institute which is designed primarily to develop models be followed within a year with another institute designed to test such models through more sophistocated simulation exercises. At the present time, no specific plans along these lines exists.

4) The procedure utilized by the U.S. Office of Education in obtaining proposals for these multiple institutes was not only time consuming but also quite expensive. When one computes the time spent by the various agencies and persons who originally prepared and submitted proposals, it is easy to see that much effort and time was expended on the part of those who were not granted the contract. I would recommend that the U.S. Office of Education consider the possibility of providing monies for planning such proposals. These seed monies are not to any great extent available at this time. However, it would seem to me that the quality of proposals developed would be much greater than we have at the present time. In addition, the wasted time of the persons who submitted proposals which were not funded might be reduced.

5) From our experiences of interviewing the various states in identifying problems and nominees, we found a beginning concern for the amount of time attendence would require on the part of their staff personnel. This concern I believe is justified in that many institutes which have been conducted have achieved little concrete change in programs in the participants home situation. I mentioned earlier that a quarter of a million dollars is being invested in this series of seven institutes. This quarter of a million dollars does not include the value of the time contributed by the various participants. There are going to be 445 participants attending these seven institutes for either one or two weeks. If we multiply the number of weeks by the number of participants and the number of days involved, we find 3,475 participant days in total. If we were to assign a value to their time of a mere $50.00 per day, this would amount to $123,750.00 invested on the part of our participants. Granted, these participants are given a stipend of $75.00 for the week and travel round-trip during the institute. This, however, does not replace the time lost to the local situation when these individuals are attending the institutes. One might justify this time investment on the basis that the participant will return as a more qualified and effective professional. This I believe is yet to be verified.

There are several other points which I might make based upon our experiences during this past year; however, let it suffice to say that we have learned much but would, in general, repeat this activity much the same as we have done this past year with several changes which wouldn't alter the overall format too greatly.

In this presentation, I have attempted to relate to you our experiences in developing and conducting an institute dealing with educational change based upon optimum utilization of available information. This is no easy task for as I mentioned in the introductory remarks, "There is nothing more difficult to take in hand, more perilous to conduct, or more uncertain in its success, than to take the lead in the introduction of a new order of things". We in education, however, have too often attempted to develop this new order of things with inadequate information. We too often rely upon well-established precident. Identifying, obtaining, and utilizing new information is a difficult task. We hope that our institute will not only reduce the difficulty of this task by establishing new procedures for utilizing information, but also will motivate individuals to implement and apply these procedures.

Materials Cited

1. Machiavelli, Nicolo. The Prince, chapter 6, as cited in Bartlett, John, Familiar Quotations (Boston, Massachusetts: Little, Brown and Company, Thirteenth Revised Edition, 1955), p. 85.

2. First and Second " Annual Reports of the National Advisory Council on Vocational Education", Hugh Calkins, Chairman, Duplicated Material.

3. Bishop, C. E., " The Changing Educational Needs of Rural People", (Fayetteville, Arkansas: Department of Vocational Teacher Education, 1970).

4. Griessman, Eugene B. and Densley, Kenneth G., "Vocational Education in Rural Areas", VT Research Series No. 50 (Published jointly by ERIC Clearinghouse on Rural Education and Small Schools, New Mexico State University, Las Cruces, New Mexico and ERIC Clearinghouse, The Center for Vocational and Technical Education, The Ohio State University, Columbus, Ohio).

APPENDIX

INSTITUTE I Coordination of Supportive Services for Vocational Education Students in Rural Areas

Co-Directors: Dr. Robert E. Norton, Assistant Professor of Vocational Teacher Education, University of Arkansas and Dr. Denver B. Hutson, Head, Department of Vocational Teacher Education, University of Arkansas

Place: University of Arkansas, Fayetteville, Arkansas

INSTITUTE II: Planning Annual and Long-Range Programs of Vocational Education for Rural Areas According to the Vocational Education Ammendments of 1968

Director: Dr. E. L. Kurth, Associate Professor of Vocational,Technical and Adult Education, University of Florida, Gainesville, Florida

Place: University of Florida, Gainesville, Florida

INSTITUTE III: Modifying Programs of Vocational Education to Meet the Changing Needs of People in Rural Areas

Director Dr. V. S. Eaddy, Assistant Professor of Agricultural Education, Auburn University, Auburn, Alabama

Place: Auburn University, Auburn, Alabama

INSTITUTE IV: Expanding Vocational Education Curriculums to Meet the Needs of Disadvantaged Youth and Adults in Rural Areas

Director: Dr. James E. Wall, Educationist and Director, Mississippi Research Coordinating Unit for Vocational-Technical Education, Mississippi State University, State College, Mississippi

Place: Mississippi State University, State College, Mississippi

INSTITUTE V: Rural Area Applications of Vocational Education Innovations Resulting from Research and Development Programs

Director: Dr. Douglas C. Towne, Assistant Professor of Education and Director, Graduate Research Training Program, University of Tennessee

Place: University of Pittsburgh, Pittsburgh, Pennsylvania

APPENDIX (Continued)

INSTITUTE VI: Orientation to New Concepts and Programs for Career Orientation in Occupational Education for Students in Rural Areas

Director: Dr. James E. Bottoms, Associate State Director for Vocational Education for Leadership Services, Georgia State Department of Education, Atlanta, Georgia

Place: North Carolina State University at Raleigh, Raleigh, North Carolina

INSTITUTE VII: Development of Vocational Guidance and Placement Pe sonnel for Rural Areas

Director: Dr. Harry K. Brobst, Professor of Psychology, Oklahoma State University, Stillwater, Oklahoma

Place: Oklahoma State University, Stillwater, Oklahoma