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ABSTRACT

Two learning modules, a film script, and a posttraining exercise comprise this participant handout which was designed for use with video tapes in a workshop conducted at the University of Toledo in the training of competency-based instructional personnel. Module 1, consisting of a pretest, criteria check, and grading keys, has the following objectives: (a) participant will demonstrate his knowledge of competency-based instruction; (b) participant will provide evidence of comprehension of the relationship between the taxonomy of learning, behavioral objectives, teaching methods, and evaluation; and (c) the participant will match elements of student differentiation and individualized instruction that are inherent features of a competency based curriculum. For Module 2, the participant will: (a) demonstrate his knowledge of curriculum planning, (b) match correct staff organization terms and corresponding functions outlined in the University of Toledo competency-based instructional design, and (c) demonstrate his comprehension of approaches to assessing staff interest and ability for implementing a competency-based instructional program. The posttraining exercise is the application of concepts learned in the modules to the implementation of change in the participant's home institution. (HMD)

# TRAINING COMPETENCY BASED INSTRUCTIONAL PERSONNEL

**Participant Handout**

**Center for Educational Research & Services**

**College of Education**

**The University of Toledo**

**Developed by:**
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General Instructions

The major activity will be viewing a videotape (or motion picture film) entitled:

"Training Competency-Based Instructional Personnel"

The activity contains two instructional modules and a post-training exercise. The behavioral objectives for the modules and exercise are as follows:

## Behavioral Objectives for Module I

1. The participant will demonstrate his knowledge of competency-based instruction by selecting from a list of characteristics those components which are an integral part of a competency-based curriculum as measured in a five minute criteria check.

2. The participant will provide evidence of his comprehension of the relationships between the taxonomy of learning, behavioral objectives, teaching methods and evaluation by selecting from given lists examples which correctly specify these relationships as measured on a five minute criteria check.

3. The participant will match those elements of student differentiation and individualized instruction that are inherent features of a competency-based curriculum as measured on a five minute criteria check.

(The minimum pass in this module is a total score of 60% correct answers. Failure to obtain this score necessitates recycling through the module. Those with passing scores in Module I should advance to Module II.)

## Behavioral Objectives for Module II

1. The participant will demonstrate his knowledge of curriculum planning and responsibility for modifying student behavior by identifying those persons directly responsible for such tasks as explicitly stated in The University of Toledo competency-based instructional design. Evidence of such knowledge will be measured on a five minute criteria check.

2. The participant will identify and match the correct staff organization terms and their corresponding functions outlined in The University of Toledo competency-based instructional design as measured by a five minute criteria check.

3. The student will demonstrate his comprehension of approaches to assessing staff interest and ability for implementing a competency-based instructional program by selecting the most appropriate responses that correspond to the Toledo design which emphasizes self-evaluation and peer

assessment as measured by a five minute criteria check.

## Behavioral Objectives for Post-Training Exercise

1. The participant will provide evidence as to his ability to apply the specific skills acquired in the lesson modules by involving his own staff in operationalizing a systems design for implementing a competency-based curriculum using the approach previously taught, with the specific instructions provided in the post-training exercise.

2. The participant will devise his own synthesis of both competency-based instruction and an implementation system by operationalizing these designs with necessary modification due to each unique situation. A time schedule must be part of this implementation design.

3. The participant will appraise, explain and, if necessary, modify his design, eliminating those weak points which are counter to the prescribed components of competency-based instruction and the system design for implementing change as taught in the Toledo instructional model.

(A minimum pass on the post-training exercise not only requires specific completion of the objectives in the training modules but also the analysis of the project. This should include such examples as (1) feasibility, (2) needed modifications of staff, design, curriculum or facilities, and a commitment to implement and operationalize sound educational research.)

There are certain activities involving written materials and this handout packet contains all the materials necessary for these activities. The initial activity will be taking a pretest. Instructions for each activity appear in sequence. Read the instructions carefully at each point and do not alter from the sequence. For example, after completing the pretest, you will be asked to score your responses and the correct answers are provided. Please do not look at the answer key prior to taking the pretest.

Now, turn on the set (or projector) and view the videotape (or film) until instructed to turn to the pretest. At that point turn this page to the pretest.

## PRETEST

Instructions: Respond to each item by circling the one or more correct options. Remember there can be more than one correct option to an item.

1. In the following examples, which activity is appropriate to the stated behavioral objective. If for example the objective was:

   The student will be able to apply the terms 'concept', 'mode of inquiry', 'organizational structure', and 'behavioral objective', in the preparation of a course unit.

   A. Completing an objective test that requires the identifying from a list of the terms, inquiry, behavioral objective, organizational structure and course unit.

   B. Viewing a filmstrip which defines the terms contained in the objective.

   C. Discussing in small groups the meaning of the terms 'concept', 'mode of inquiry', 'organizational structure', and 'behavioral objective'.

   D. Working in small groups, writing a curriculum unit employing all of the concepts listed above.

   E. Evaluating a curriculum guide to determine if there are precisely stated goals.

2. The Taxonomy of Educational Objectives as developed by Bloom and Associates is primarily a:

   A. Descriptive classification of the various levels of learning stated in reference terms most applicable to educators.

   B. System for classifying behavioral objectives at various levels of learning.

   C. Theoretical set of objectives that attempts to list what educational skills are most important.

   D. Set of objectives written from memory level through value use.

   E. An attempt to organize curriculum away from content to one of process.

3. Evaluation procedures in a competency based system:

   A. Reflects the objectives and activities previously taught.

   B. Test new material to determine if the student has capability at creative problem solving.

   C. Are required by the cognitive nature of the system to use only written exams.

   D. Are difficult to construct beyond the lower levels of learning.

   E. Are specification oriented and measure skill attainment.

4. Developing a competency based curriculum should include the following:

   A. A designated curriculum committee to develop and implement the new program.

   B. Only the personnel directly with teaching the curriculum.

   C. Students, public school personnel and community representatives.

   D. People with a broad variety of educational philosophies and views of curriculum.

   E. A communication system other than the traditional organizational scheme for identifying the educational objectives of the system.

5. Some primary facts about a competency based system are that:

   A. Time/cost factors are considered at all points in curriculum development.

   B. The cost is less and the resources may be reduced substantially over those in a less planned traditional program.

   C. Alternative instructional routes or specifications need not be considered since a singular plan of objective and activities as developed by the staff should meet all requirements.

   D. Instructional modules in a competency based curriculum are expensive and require considerable staff time and energy.

   E. Balancing and sequencing of skills and learning activities is difficult to accomplish in a competency based system where all staff are involved in planning, developing and implementing.

6. In the following example, which ideas are <u>not</u> functional for identifying desired teaching behaviors:

   A. Work groups of faculty from different academic areas.

   B. The pre-requisite ability of having all staff members put their ideas in behavioral objective terms.

   C. Make all curriculum people aware of the practical and political constraints and have them create accordingly.

   D. Allow the staff concerned to choose whether they want a structural model for developing their ideas.

   E. Departmental and academic discipline areas as structures around which to develop the new curriculum.

At this point, turn the page and score your own pretest, using the answers provided.

## Scoring Key for Pretest - Correct Options

1. d
2. a, b
3. a, d, e
4. c, e
5. a, d, e
6. b, c, d, e

If you have scored 80% or above correct, you would have the option of moving to the Post-Training Exercise. However, we suggest that you view the videotape (or film) for the experience.

Now, turn on the set and view Module I. When told to proceed to the criteria check, turn this page.

## CRITERIA CHECK FOR MODULE I

Instructions: Respond to each of the items. One or more responses may be correct.

1. Check which of the following are characteristics (components) of a competency-based curriculum:

   A. Behavioral objectives.

   B. Standardized (constant) student learning rates.

   C. Emphasis upon behavior with none upon time/cost factors.

   D. Differentiated staffing.

   E. Student performance standardized at a given percent correct for success.

2. If we consider various learning outcomes or levels of learning, a competency-based curriculum is concerned with outcomes at:

   A. The knowledge level only.

   B. The knowledge level through the application level.

   C. Only levels higher than the knowledge level.

   D. Knowledge level and levels beyond the knowledge level.

3. The activities of a competency-based curriculum have the following thrusts:

   A. Teaching for the objective.

   B. Specifying teacher behavior.

   C. Evaluation based on research designs.

   D. Simulation of the real world.

4. The goals of the learning activities in a competency-based curriculum are:

   A. Geared towards having the student memorize the data-materials presented.

   B. Teaching for the specific objectives.

   C. Simulating the real world: symbolically, linguistically and concretely.

   D. Content acquisition and program-learning.

   E. Cognitive skills and measurable behaviors.

5. Evaluation items, like behavioral objectives in a competency-based curriculum are:

   A. Limited to the cognitive domain.

   B. Are de-humanizing and fail to measure all but the most superficial levels of behavior.

   C. Concerned with all levels of learning.

   D. Only as good as the person who writes them.

   E. Process and value centered at the higher levels of the taxonomy, instead of content centered.

6. Student differentiation in a competency-based curriculum suggests which of the following:

   A. Pre-testing to measure prior skills.

   B. Postesting only at the termination of instruction.

   C. Alternative programs based on student needs.

   D. Unique sets of objectives for each student.

Now, turn the page and correct your own criteria check responses.

## Scoring Key for Criteria Check-Module I - Correct Options

1. a, d, e

2. d

3. a, d

4. b, c, e

5. c, d, e

6. a, c

After scoring the criteria check, had you performed less than 60% correct, you would normally recycle by viewing Module I again.

However, for the completion of this experience in the alloted time, proceed by viewing the videotape, Module II.

At the conclusion of the videotape, turn the page and respond to the items of the Criteria Check for Module II.

## CRITERIA CHECK FOR MODULE II

Instructions: Respond to each of the items. One or more responses may be correct.

1. The responsibility of identifying the desired teacher behavior of prospective graduates is that of the:

   A. Director or college dean.

   B. Faculty.

   C. Curriculum consultant.

   D. Community committee.

2. In following a systems approach to staff organization, the "trouble shooter" for the systems is the:

   A. Evaluator.

   B. Input analyzer.

   C. Identifier.

   D. Implementer.

   E. Instructor.

3. Which of the following are feasible approaches to staff assessment?

   A. Interest or opinion questionnaire.

   B. Standardized test.

   C. Preparation of position papers.

   D. Review of credentials.

   E. Individual presentations of completed research.

4. The members of the input analyzer team would definitely include:

   A. Project Director.

   B. Community persons.

   C. Faculty.

   D. College dean.

   E. Students.

5. Differentiated staffing in a competency-based curriculum is enhanced by:

   A. Roles within the systems approach.

   B. Instructional teaming.

   C. Evaluators.

   D. Student behavior orientation.

6. Possible threats to successful program operation when using a systems approach are:

   A. Inadequate feedback.

   B. Overstaffing.

   C. Understaffing.

   D. Definition of program components.

Now, turn the page and correct your own criteria check responses.

## Scoring Key for Criteria Check-Module II - Correct Options

1. b, d

2. c

3. a, c, d

4. b, c, e

5. a, b, c

6. a, b, c

If you had scored less than 60% correct, you would normally recycle by viewing Module II again.

This concludes the presentation of the videotape and you are ready to move to the Post-Training Exercise on the following page. This exercise is for you to take with you to your own institution. We have also provided you with a complete copy of the script of the two modules you have viewed. The script is for your use and review at your convenience.

# TRAINING COMPETENCY-BASED INSTRUCTIONAL PERSONNEL

## Post-Training Exercise

You have now completed viewing the presentation of training and organizing staff members with a competency based orientation. The brief presentation should have stimulated ideas that can be applied in your situation. To be sure, time limitations have not allowed to be said all there is about the training of competency-based personnel. Nevertheless, the presentation should have provided enough background for initial attempts at application.

As an initial attempt at application let us suggest that you consider the instructional program of your project and go through the following steps in the order presented. This is not an exercise to be done in one sitting at this conference but one to be completed upon returning to your home institution.

1. Assess your staff capabilities and assign individual members of your staff to the various positions suggested in the organizational scheme. Prepare a role description for each of the positions in the context of your own project.

*2. Decide on a given team size that seems most applicable for your own project and in working with your staff, structure the interrelated teams necessary for the instructional part of the project.

*3. In working with the project staff, identify various "outputs" and develop a time schedule for attaining the outputs.

4. Review the development on your first three points carefully and identify any potential weak points in the system. You may want to conduct this review with members of your staff. Identify the adjustments that are suggested by your review.

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*Any given project may already have considerable planning on this point. Such planning should fit in with no difficulty with continued development of competency-based instructional personnel.

If after completing the above exercise you would like a critique of your product, please send your remarks to:

Dr. Sam Yarger, Director
Teacher Corps Project
College of Education
The University of Toledo
Toledo, Ohio 43606

# TRAINING COMPETENCY-BASED INSTRUCTIONAL PERSONNEL

## Script of Videotape Presentation

In the next hour we will provide both a model of a competency-based curriculum and suggest some necessary requirements for implementing a competency-based systems design in Teacher Corps.

In a minute you will have the opportunity for a pre-test of the knowledges and skills required for a successful completion of these modules. Should you score over 80 percent on this test, the following exercises would be redundant but we would recommend that you participate for the experience of the process. For those of you not "phasing out" or passing the pre-test above 80 percent, instructional modules followed by criteria checks have been designed. Following the final criteria check you will move to the post training exercise which will require application and value-level skills. Each of you will exhibit your own value commitment to the systems approach to the degree you implement the post training exercise which require the assessment and development of a competency-based design at your own school.

While normally repetition of the viewing of the module would be recommended for those of you not successful in the criteria check, it is obviously not practical in this situation. Therefore, the script is available to you, should you need it.

The structural development of this program first states the objectives for each module then proceeds to provide the answer, discuss the problem, and finally requires you to perform during the criteria check at whatever level the objective was written.

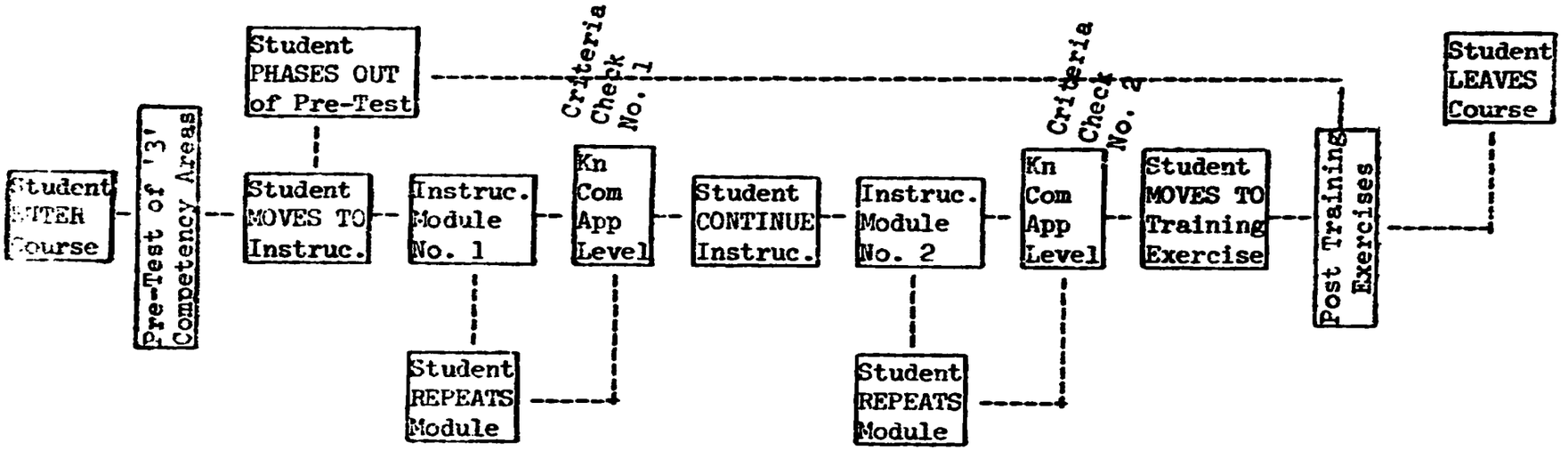
Let's proceed to the first requirement of the course: The Pre-Test --

(Introduce the Pre-Test)

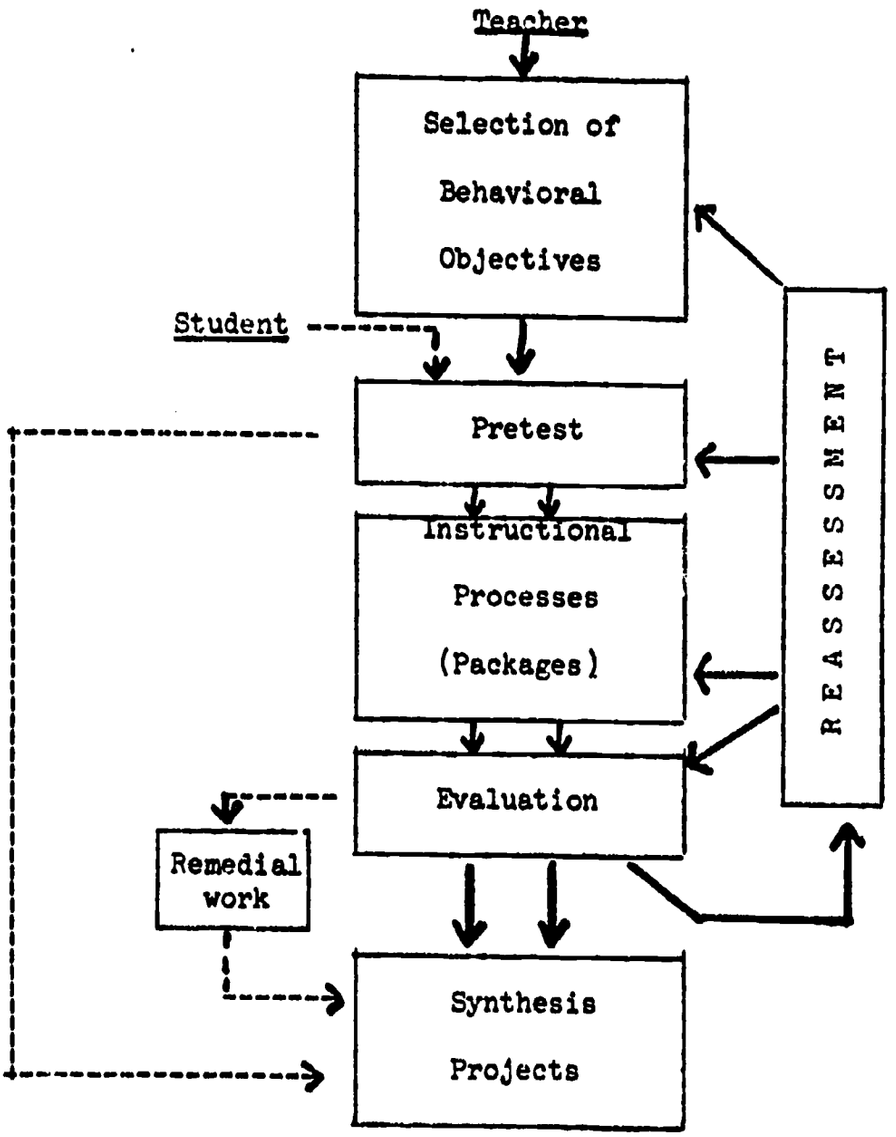
Turn off set and answer the items on the test. The answers are provided at the end of the exercise.

You should score your own paper.

## Curriculum Map
## Implementing A Systems Design - Teacher Corps



OPERATIONAL MODEL



The objective of Module I is to acquire definitional skills necessary for preparation of competency-based instructional personnel.

A competency-based curriculum is a curriculum that has behavioral objectives, precise activities and evaluation items based on those objectives. It is differentiated in terms of staff, student learning rates and instructional materials.

In discussing the first component of a competency-based curriculum the primary point is to organize curriculum around objectives that are geared to performance. Objectives, in their most essential form state the performance and criteria required to pass a given segment of a curriculum, hence, the use of the word competency.

Currently, it is "avant-garde" to have teachers re-state their content-oriented courses in precise objective form. The result may begin and end with such objectives as:

1. The student will name the 50 states and their capital cities in five minutes and an appropriate pass will constitute a minimum of 45 right.

or

2. The student will defend the Turner thesis by citing examples from seven different cultures as exemplified on an essay exam of 5000 words.

The problem with these objectives is not that they may not be appropriate, but rather that they fail to include questions from other levels of the Taxonomy of Educational Objectives which is a system for classifying objectives at various levels of learning. The competencies or skills being taught in these examples do not rise above memorization. An adequate curriculum would include objectives that range from memorization through higher levels of learning. An essential element of a competency-based curriculum is the principle that learning and performance can be written on all levels both cognitive and attitudinal. Here is an example of an objective that might be found in a competency-based curriculum.

> The student will demonstrate his ability at synthesis by producing a self-selected project in education which includes the use of the skills investigated in the course of study. The student will analyze and interpret his project according to the generalizations and concepts investigated in the course.

This objective while primarily cognitive, still requires the student to utilize value choices in selecting, organizing, and defending his material and to that degree represents higher levels of competencies.

For example, the projects could include such diverse models as, compositions, essays, paintings, curriculum units, poems, shoe boxes, dress or quilt patterns, or a statistical research project. A competency-based curriculum is concerned with skills and competencies that include yet extend beyond the memorization level of learning.

The activities in a competency based curriculum have two thrusts: one, teaching for the objective and two, providing the student with knowledge of use to him in the real world.

If for example the objective was:

> The student will be able to apply the terms 'concept', 'mode of inquiry', 'organizational structure', and 'behavioral objective', in the preparation of a course unit,

the activities might be:

1. The student will view a filmstrip which defines the terms contained in the objective.

2. The student will discuss in small groups the meaning of the terms 'concept', 'mode of inquiry', 'organizational structure', and 'behavioral objective'.

3. The students working in small groups will write a curriculum unit employing all of the concepts listed above.

A competency-based curriculum would rely not only on telling students, but would also focus on having students perform problem-solving activities and evaluating real situations, once the necessary skills were acquired.

In other words, staff personnel need to be cognizant that in a competency-based instructional program students will perform activities suggested by the objective, and these activities will frequently go beyond the listening, responding and writing activities associated with classroom instruction.

If the objectives and activities have been consistent then the evaluation procedures must also be consistent. The evaluation procedures reflect the objectives and as such measure whether a given competency or skill has been attained.

An adequate evaluation procedure requires that we determine from the student's behavior whether the objective has been met. A competency-based curriculum requires the student to perform only those activities provided in the instruction of the module. If objectives do not encompass everything, the fault is likely to lie now in the objective itself,

but rather in the writer's inability to write items that require more than simple memorization skills.

So far we've only discussed the instructional aspects of a competency-based curriculum. Now let's look at staff and students.

Staff differentiation requires evaluating staff competencies and interests. Staff like students have strong and weak areas. The first should be used, the latter strengthened. A competency-based curriculum uses competent people in their competent areas and involves them in decision-making and curriculum development.

Suppose the module is on the utilization of a concept such as 'mode of inquiry'. Who better than individuals interested and competent in the subject area should be the developers of instructional modules. Thus, all those concerned may be involved in identifying activities, appropriate materials, or related concerns operationalzing the competency-based approach.

Student differentiation suggests continuous progress, pre-testing to measure skills, criteria checking to assess skills and alternative programs for those needing extra help. The final aspects of a competency-based curriculum are materials, costs, and time factors. These too are vital elements.

In summary what is needed is data on each of these to effect the curriculum and staff situation in question. While limitations in materials, funds, or time may restrict a desired program to its 'bare essentials', none of the above are valid as a rationale for eliminating a competency-based model. With our knowledge of the teaching-learning process, the competency-based curriculum meets the realities of a changing complex society.

At this point you should proceed to the criteria check to complete the requirements of the objective.

(END MODULE 1)

Public schools have had a recent surge of innovation. (Pause) Well, maybe not a surge (Pause) and maybe not much innovation, but there has been a great deal of publicity about innovation that would lead one to think there has been change in the public schools; but, as we know, little real change has occured. Perhaps the perpetuation of the status quo has been caused by the strategy used by some public school administrators to produce educational change. We are all familiar with the innovation syndrone: the superintendent goes to a conference; the superintendent gets an idea at the conference; the superintendent hires someone to tell the staff about his idea--in-service ends, doors close, and nothing changes.

There is the same danger of wasted energy in the implementation of a competency-based curriculum. In fact, the danger of futile activity is probably even greater in an institution of higher education--for if public school teachers have the ability to sabotage a program that they don't believe in, one would suspect that professors would be even more capable of sabotaging an innovation, and even less capable of implementing one that they do not understand.

Thus, if a project director is interested in initiating a competency-based curriculum he should be reminded of a variation of the old adage of methods professors: telling isn't implementing. Knowledge of an innovation is only a minor aspect of effecting educational change. Conceivably, you could select one of the Model Elementary Teacher Preparation Projects; conceivably, you could tell your faculty about the model's rationale, content and organization. Conceivably, you could tell your faculty that the professors in another institution have expended much time, and federal funds to create a competency-based curriculum, you could even tell them how great the project is and you might even tell them that your institution would adopt the model--but one would suspect that your likelihood of effecting change would be limited. Professors have had a long history of "doing their own thing". They are accustomed to deciding themselves what is appropriate teacher behavior. Unfortunately, as you well know this has resulted in duplication of course content as well as the serious omissions in the instructional program of colleges of education. And although the logical solution might be to implement a project institution's competency-based curriculum, such a solution in the real world won't work. Although it may sound logical such an innovation strategy will produce much faculty trauma and little change.

People in general, and probably professors in particular, will only give support to a change if they believe that they are in some way responsible for the change. If the professor feels that the innovation is his innovation, and in fact if it is, then obviously he is going to be more committed to it than to someone else's innovation.

Thus, the first step in implementing a competency-based curriculum is to ask the faculty what they believe should be the end product of a

teacher education program. Your faculty must be responsible for identifying the desired teacher behavior of a graduate of their institution.

The size of your faculty will obviously effect how you will arrange for them to express what they believe to be the educational outcomes of your institution, but despite the problems involved in arranging for all members of your faculty to participate in the dialogue, it is important to remember that the more involved your faculty becomes with identifying desired teacher behaviors, then the more likely it is that your faculty will in fact adopt a competency-based curriculum.

The word faculty should not be restricted to its traditional meaning. In the definition of appropriate teacher behaviors, you should engage the services of all the people involved in the preparation of teachers - many of whom are not professors. The faculty of a student in teacher preparation includes: -- in addition to professors --

GRADUATE STUDENTS - they teach interns

PUBLIC SCHOOL TEACHERS - they teach interns

PRINCIPALS - they teach interns

COMMUNITY PEOPLE - they teach interns

and in the real world, INTERNS teach INTERNS for the real world.

The following suggestions might be helpful in your creation of a strategy to facilitate interaction among the faculty.

DIVIDE THE FACULTY INTO GROUPS TO IDENTIFY DESIRED TEACHER BEHAVIORS

The organization of most colleges of education is probably inadequate to obtain the depth and breadth of faculty opinion that you desire for the initial step in creating a competency-based curriculum. To ensure interaction, it might be wise to arrange groups that are composed of faculty members from different academic areas. Someone who works in administrative theory may make some significant contribution to the definition of a successful elementary teacher; an elementary methods professor might make some important contributions to the identification of the successful behavior of a secondary school teacher. Encouraging people with different orientations to focus on a problem may result in some new insights into the problem. In addition, it might be helpful to expose the faculty to techniques of group dynamics that help groups focus on a task such as "T" groups, brainstorming, or other strategies to promote creativity.

A second suggestion to encourage the involvement of all faculty members might be to ensure that faculty members can participate in the identification of desired teacher behaviors without having to be familiar with the techniques of writing behavioral objectives. Don't put any hurdles in the way of staff participation. A new concept such as behavioral objectives can be threatening to mature faculty members--or even young ones who don't know of the concept. Although it is frustrating to you that faculty members will not independently up-date themselves about something like behavioral objectives, the fact remains you will have to live with this limitation of human nature.

A third suggestion to assist you in the identification of the faculty's beliefs about successful student behavior might be to encourage the faculty to "blue sky", that is have the faculty describe outcomes of the program without concern about the practicality of achieving the objectives. Often change does not occur because people conceptualize but fail to follow through on their ideas because they fear that they are not practical or politically feasible. In the process of surveying faculty opinion it's wise to make sure that no professor feels inhibited about suggesting new goals. If your faculty as a planning group allows for an awareness of existing institutional constraints to inhibit their creativity, their definition of a successful graduate may turn out to be surprisingly similar to what presently exists.

Certainly, college and project staff should have considerable personal latitude in developing and implementing a competency-based program. Their maturity and competency should be assumed. However, even the most able individuals cannot work in an organizational vacuum. Therefore, it is necessary to structure staff organization to facilitate the completion of the task. A suggested structure will now be discussed. It should be noted that the application of this structure should in no way inhibit the activities of any individual. The structure not only facilitates individual activity but also provides the coordinative mechanism for the activities of all involved staff.

In order to develop competency-based instructional personnel, it is necessary to develop a systems approach to the operation of the staff.

The task of the staff is to develop and implement the program or curriculum, presumably a competency-based curriculum. The staff should be so structured that it facilitates the process by which the task is accomplished. This diagram outlines a suggested plan for staff organization in developing competency-based instructional personnel.

The five designated positions do not necessarily follow the usual administrative hierarchy of a college or even a project, although they are not in conflict with such a structure. The emphasis in this system is upon the task description of the individuals in the various positions.

There is, of course, opportunity for communication among all positions, however, the arrows in the diagram indicate the major channels of communication. Let's take a look at the description of the positions.

The input analyzer is a committee consisting of university faculty, community representation, public school personnel, and students. Their task is the initial screening of input for the system; the input consist of material, student characteristics, finances, and the like. The initial screening consists of deciding the relevancy of input, and if relevant being certain it is in a form that can be utilized by the instructional personnel.

Instructional personnel refers to numerous individuals who form interrelated instructional teams. Their task is to transform input and program content into a competency-based curriculum.

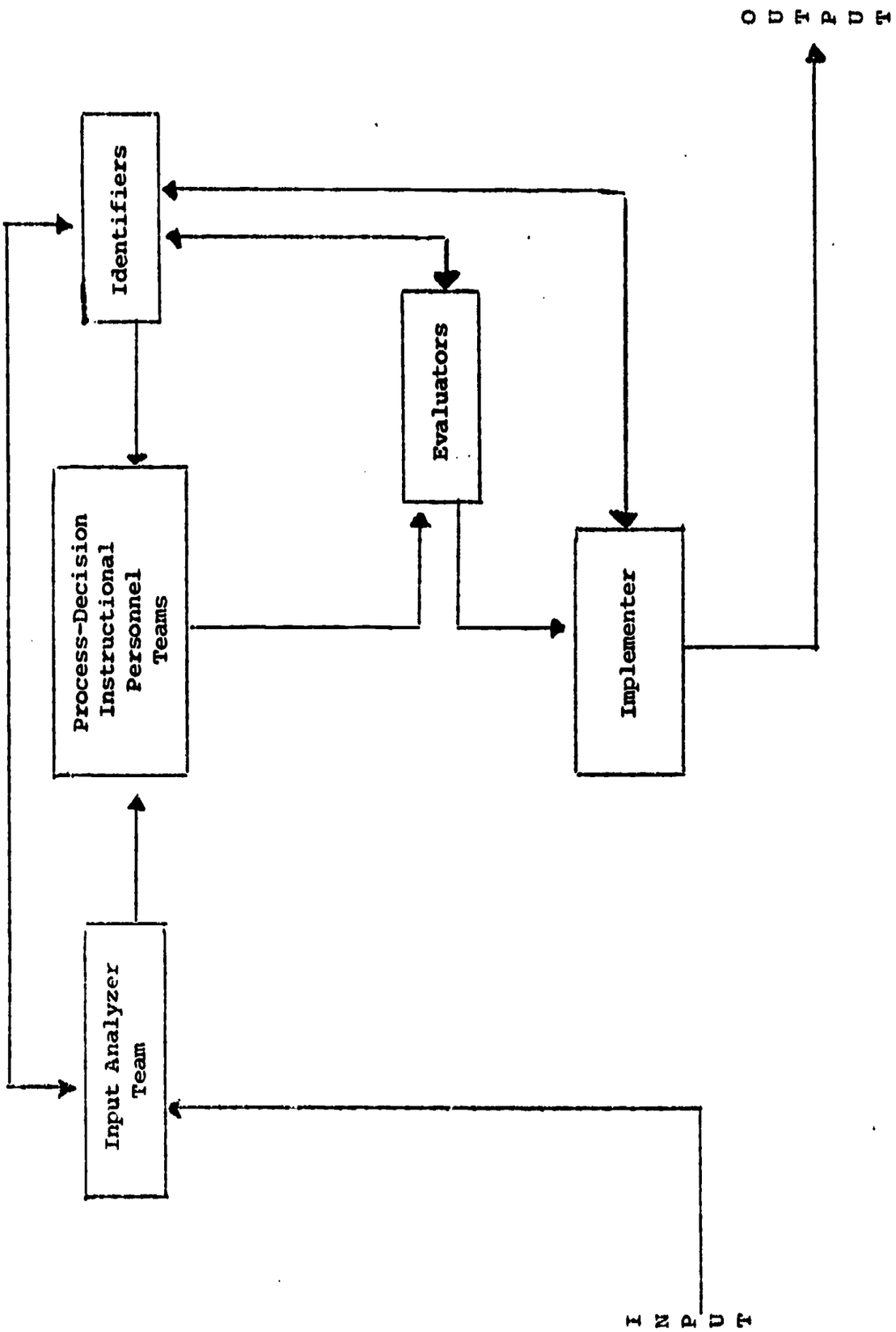
The identifiers "trouble shoot" for the program. They're responsible for seeing that the process and the program doesn't break down. The identifier is also responsible for the proper preparation of program components before implementation.

The evaluators support the decision-making process by providing information on program development and implementation to the entire system. Evaluators are also responsible for criteria checks during the operation of the program. The arrows in the diagram going from the evaluators box can be viewed as a process of information feedback.

The implementor is responsible for the entire operation of the program. He's responsible for providing the necessary resources, and initiating program corrections as suggested by the identifier.

When the decision was made to assign staff organizational roles and instructional teams cutting across conventional departmental lines, the assessment of both interests and capabilities became a major concern. No longer will a prospective teacher take separate courses in learning theory, in elementary science, and in science methods. From now on teams of concerned individuals will identify the objectives needed to teach science to young children. Dealing with this as a unitary problem requires that University staff members work together in new and different ways establishing relationships that have previously been unnecessary. A group of staff members are not likely to be able to initially make judgments leading to appropriate team and role assignments without some form of systematic assessement of their own skills to aid them.

The assessment of interests is likely to be easier than the assessment of capabilities. A brief, easily completed questionnaire can be


OUTPUT
Identifiers
Evaluators
Process-Decision Instructional Personnel Teams
Implementer
Input Analyzer Team
INPUT

an invaluable aid in assessing the interests of your staff, straightforward questions concerning their reaction to the proposed interdisciplinary teams will often clarify and suggest clusters of faculty members. The important thing to remember is that the questionnaire should reflect the proposed organization, not conventional departmental lines.

In addition to this, and perhaps it should come first, the staff might be asked to respond to position papers written to offer a rationale for the new professional affiliations. This would not only serve the purpose of assessing your staff's interests, but also of offering input to your staff, thus giving them a basis for response. Such a technique would also help ensure that staff members are responding from a common reference point.

Assessing the capabilities of a staff can be a very sensitive operation. It is hardly feasible that staff should be requested to take any form of standardized test, yet the available human resources must be evaluated and recorded before intelligent utilization can occur. Consequently, unobtrusive forms of assessment appear to hold the greatest potential for success.

Probably the least threatening measure focuses on the analysis of a staff member's credentials. A set of professional credentials frequently offers more information than one gathers at first glance. Not only is a staff member's formal training itemized for the reader, but also his professional affiliation, previous experiences, and personal relationships can often be discovered, either directly or indirectly. For example, if a methods professor has three references from psychology professors, this might well indicate an interest and capability in the area of learning processes of children suggesting a previously unknown skill. By the same token, experience as an elementary principal could suggest credibility in working with public school administrators.

A more sophisticated approach might utilize faculty members in helping to assess the capabilities of their peers. This could be in the form of a questionnaire to faculty members asking them to suggest faculty roles for their colleagues, or a committee of faculty members charged with the responsibility of peer assessment, or it could be a combination of the two. One must always focus on staff strengths and capabilities, never shortcomings. This is legitimate, as the objective is to determine what a colleague can do, not what he cannot do.

Another unobtrusive measure that can be employed is to ask staff members to perform tasks in relation to their declared interests. If a faculty member has isolated one or two areas of interest, ask that faculty member to produce a position paper or some similar document for staff orientation purposes. Such a document could not only serve to assess capabilities or skills, but could also be helpful in discovering biases, values and attitudes.

In the same vein, staff members could be asked to work alone or with their colleagues depending on the objective in the production of educational specifications or modules. These experiences could be used to assess staff capabilities as well as serving an inservice function.

Each of you can probably think of several other possible unobtrusive techniques that you could use for the purpose of assessing staff competencies. The task is difficult yet crucial if staff resources are going to be utilized with maximum effectiveness. One final suggestion: as previously mentioned it might be helpful to utilize the staff itself, or a committee of staff members in selecting the process to be used. Any technique which has the approval of the faculty or is <u>their product</u>, stands a better chance of success than one that is imposed on them from a dean or director.

Considering the system in the context of a project, the implementor would undoubtedly be the project director. The identifiers would be designated by the director, and if the project has an assistant director he would likely be included on this team. Evaluators need not be part of the instructional staff, although this is a possibility. They require certain technical skills in connection with data collection and analysis.

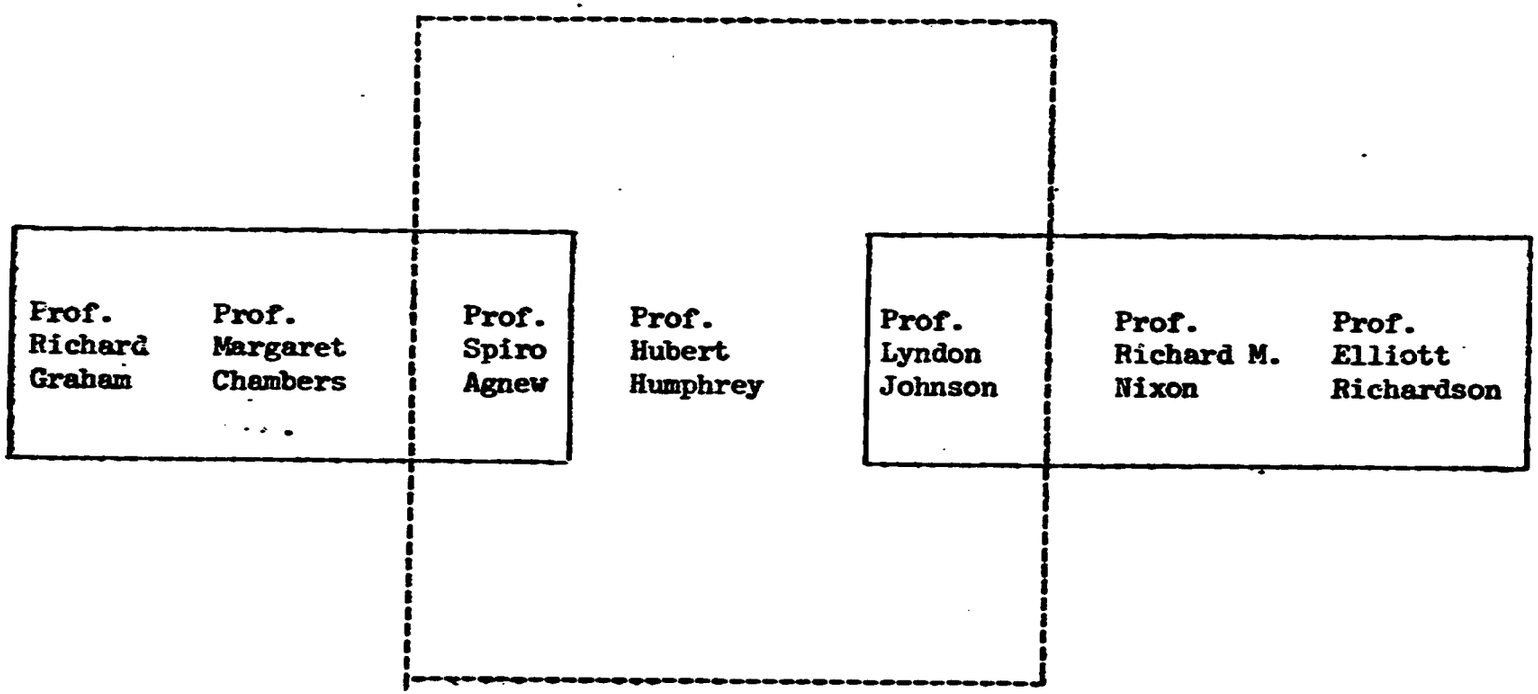
The five different positions outlined in the structure create a differentiated staff for the college of project. The option for further differentiation also exists among the instructional personnel in setting up the various teams. The extent of this differentiation is best left to the individual teams and unique staff characteristics. Each team, of course, must have a designated leader.

The program components can be determined in any number of ways, but, of course, learning outcomes should be expressed in terms of behavioral objectives. Once the program components are identified, teams of instructors should be involved in the instruction. In order to enhance program continuity the teams are interrelated due to the following: 1) an individual may serve on two or more teams; 2) any given team differs in at least one individual from other teams. Suppose we have this staff: Professor Hubert Humphrey, Professor Lyndon Johnson, and Professor Richard M. Nixon, and we consider three teams of three instructors each.

Here is one possible arrangement:

There are other possible arrangements, and it is possible in some projects more individuals would be involved. Individual instructors would work on program components related to their areas of competence. Instructional teams would likely vary in size from three to five members. Less than this would tend to lose the advantages of teaming and greater tends to make teams unwieldy to manage.

The designation of the system does not insure successful program operation. One threat is inadequate feedback from the evaluators.




Possible Arrangement of Three Interrelated Teams

Another is failure to define program components adequately. A very obvious threat is the improper assignment of personnel. Related to personnel is the similar case in which the director does not provide adequate resources and personal latitude to complete the tasks. Implementing a competency-based curriculum is expensive as teachers devise new instructional routes and create instructional techniques for new objectives. A need for more technological as well as printed media will become apparent. It requires an expenditure of a variety of institutional resources besides money. A great deal of faculty energy will be expended in preparing instructional modules--particularly in the creation of alternative instructional routes.

It will probably be necessary for the faculty to spend more time in direct contact with students. The program will also require many students to sacrifice some of their independent time. For some students more time will be spent in instructional activities because all students will not achieve an objective in a traditional fifty minute classroom hour. Some will need much less time, others will need more.

Any project or program must be subject to a time schedule. If instructional components are being developed it is necessary to have deadlines for the completion of certain tasks. Information feedback must be scheduled since timing of information is essential for effective evaluation. Instructional components must be sequenced and allotted various time blocks during the program operation period. These aspects are crucial to the implementation of a competency-based curriculum.

How receptive is the institution to change? Must change occur using traditional credit hours and course load? Will the institution and the student body commit themselves to spending more time in instructional activity? Is the institution capable of handling the reporting procedures implicit in a competency-based curriculum? Are there funds available for materials? How much and to whom will the funds be allocated--if new funds are available? Lack of resource can be a discouragement, but if a staff becomes committed to an objective, it can overcome temporary economic barriers. However, knowledge of the realities is essential.

Once the faculty has identified the objectives of their teacher education program and the modules have been created--or responsibility for their preparation has been identified, it is necessary for the director to decide with his faculty the implementation strategy.

--will implementation be done after a year of development?

--will it be tried out in certain courses? or departments?

--will it be field tested with a pilot study group?

--will individual modules be taught within traditional course structures? or will the system be significantly changed?

Depending on the situation, all the options might be feasible but in the adoption of an implementation strategy like the identification of the outcomes of a program, the decision must be made by the faculty.

If an attitude is adopted that one must constantly involve and communicate with professors, graduate students, interns, community people, then maybe reform can come to education.