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ABSTRACT

Performance-based teacher education (PBTE) is a promising new approach to the pre- and inservice training of teachers. The program develops performance skills generally evaluated using process and product measures rather than traditional verbal measures. There are four major factors in the organization of a PBTE design: (1) research, (2) development, (3) implementation, and (4) evaluation. In research and planning, some of the essential steps are (1) Establish a time line; (2) Identify Objectives; and (3) Establish a scope and sequence for the program. In development, a modular or learning package design must be conceptualized and then all the learning materials created to follow the design. An adequate PBTE program will also utilize seminars and field experiences. In the implementation of a PBTE program there are three major concerns as: (1) logistical considerations, (2) utilization of a learning laboratory, and (3) intern selection. No matter how effective one may think a program will be, pre-planned evaluation procedures should be built in to document results and provide data for making decisions relative to all aspects of the program. In PBTE programs evaluation concerns should be primarily related to: (1) module effectiveness, (2) intern effectiveness, and (3) criterion testing. Hopefully, a PBTE program will not only improve teacher effectiveness from the point-of-view of improved professional skills, but also improve teacher-teacher and teacher-pupil relationships. (Author)

Program Design for Performance-Based  
Teacher Education

by

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Performance-based teacher education (PBTE) is a concept that, although relatively new, is already being heralded by many as one of the most promising recent developments in the pre-service and inservice preparation of teachers. The "selling job" of those on the cutting edge of the movement has been made easier because of recent public demands for accountability. In some cases these demands have resulted in legislative mandates for the specification of performance criteria to be used in the evaluation of teachers.

WHAT IS A PERFORMANCE-BASED PROGRAM?

Although conceptions of the finer points of a PBTE program may differ slightly from one authority to another, few if any would disagree with the statement that it represents a distinct departure from traditional methods of teacher training. Where traditional programs have emphasized cognitive skills, PBTE is primarily concerned with ability to perform or do something. Desired behaviors are spelled out and made public; learners know exactly what they are expected to be able to do, therefore they are able to focus their interaction with the instructional materials and personnel on the accomplishment of the specified objectives.

Regardless of the type of program employed, some kind of effort is usually made to evaluate learners accomplishments. Basically there are three ways to measure learner achievement: (1) knowing how, (2) doing, and (3) results of doing.

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The type of measurement that has usually been emphasized in traditional programs is the "knowing how" variety. In this type of measurement learners are tested on their ability to verbalize or tell how something is or should be. In a traditional teacher education program the pre-service teacher in a methods course might be learning how to conduct effective group discussions. At the verbal level of measurement the proof that he had learned how to do this could be supplied by having him tell how to conduct an effective group discussion. The "knowing how" approach represents the lowest level of measurement.

PBTE has moved away from the level dealing with knowing how to a second and higher level in which the learner is expected to do or perform in a behavioral sense. This type of measurement is consistent with the concept that learning is a change in or desire to change behavior. At this level the ability to conduct an effective group discussion would be measured by actually having the learner conduct one rather than just tell how it's done.

The highest level of measurement emphasizes the product. In the case of our group discussion example, the way to measure a teacher's ability to conduct an effective group discussion would be to measure the participant's accomplishment of the objectives (ends) for which the group discussion is the means of promoting achievement. In other words, were the desired behavioral changes brought about as a result of the discussion? If so, it was effective. To measure teachers at this level would require a follow-up ~~of them~~ after graduation. Only by observing them on the job over a period of time could it be determined if the performances they acquired were enabling them to bring about the desired behavioral changes in their students. Many have proposed this very idea not as a substitute for PBTE, but as a logical extension to and validation of PBTE programs.

## PROGRAM ORGANIZATION

There are four major factors to be considered in the organization of a performance-based teacher education program: (1) research, (2) development, (3) implementation, and (4) evaluation. The sub-parts of these areas may vary slightly depending on the situation. What is presented herein is a minimum of elements to be considered -- not a maximum! Those using the model should expand and adapt it to fit the unique circumstances of their location.

### Research

An excellent program does not just materialize out of nowhere; it requires a certain amount of research and planning. Carefully thought out procedures prior to program development and implementation will enhance the possibility of being able to evaluate the effectiveness of a system once it is operational. Among the things essential to this effort are three steps: (1) establish a time line, (2) identify objectives, and (3) establish a scope and sequence.

Establish a time line. Many important decisions may not get made or will have to be made under unnecessary pressure unless a time line is identified for all activities to be completed in connection with the establishment of a PBTE program. Deadlines are essential to insure that each part will be ready for placement in the total picture at the necessary time. Some of the things that might be considered are plans for staff development, module writing and rewriting, logistical plans for monitoring the system, development and/or identification of testing materials, and structure of field experiences and seminars.

Identify objectives. Once the time line has been conceptualized, the next task is to identify the objectives for the program. Since curriculum is defined as a planned series of learning outcomes for which the school is responsible,

it is logical to assume that the specification of these desired outcomes should be one of the first considerations in organizing a PBTE program. The method of identifying objectives presented herein consists of five steps, and although it is not the only approach available, it is one which is very simple and easy to use.

In the proposed approach, the first step is to decide what the ideal product should be like. In this case the ideal product refers to students who are taught by teachers who receive training in the PBTE program. Questions such as "What behaviors should students have?" and "What should they be able to do?" should be considered. Tyler's curriculum rationale is an example of a model which is designed to get at this problem in a systematic fashion. The needs of the student are considered a prime source of input in the <sup>final</sup> ~~first~~ identification of objectives for a program.

The second step is to look at the teacher. Questions such as "What should the teacher be like?" and "What kind of training should a teacher have?" should be answered at this point.

The third step is to take a closer look at the teacher and decide what behaviors one should have to be able to produce the desired product -- the ideal student. Until more research evidence is in, this decision will have to be made on the basis of sound professional judgment and consideration of limited available data.

In the fourth step, the desired behaviors already possessed by the teacher are subtracted from the list of needed behaviors. What is left is called residual behaviors. These are the things that the teacher must be able to do that he or she can't already accomplish.

The fifth step is to gather these residual behaviors into a pool which will serve as the foundation for the development of the teacher education program. When the five steps are followed the result should be a set of relevant behaviors to be accomplished by prospective teachers.

Involvement of faculty and staff is essential to the success of any new program -- this is especially true of a PBTE model because in most cases it represents a significant departure from what has traditionally been done. At the level of identification and specification of objectives this faculty involvement is especially important since the objectives selected set the stage for everything else that follows. One way of promoting this involvement and at the same time improving the existing program is to form task forces for each course in the present program. <sup>These</sup> ~~Then~~ task forces could be asked to develop ~~an~~ "idealized" course descriptions in behavioral terms. They might also specify course prerequisite behaviors and suggested instructional activities and evaluation procedures to be used. The objectives identified by these groups could be used to help identify the necessary objectives for the PBTE modules and in addition, the effort of the task forces could very well have a positive effect in term of committment to change.

Establish a scope and sequence. Once the behaviors to be developed have been identified, it is necessary to organize them into a scope and sequence for the PBTE program. As the separate behaviors are considered they will tend to fall into separate areas, and even into distinct subdivisions within areas. These various sets of objectives are used to identify needed modules.

One system of organizing and classifying the objectives is to place them into five general areas: (1) professional-technical, (2) psycho-personal, (3) socio-cultural, (4) seminars, and (5) field experiences. Every objective related to PBTE can be placed in one of these categories. As was mentioned,

within these general areas distinct subdivisions occur. For example, in the professional technical area objectives might be grouped according to such subdivisions as technical skills of teaching, evaluation, curriculum, instructional and management strategies, and materials and media. These subdivisions might be broken down into sets of objectives related to various topics. For example, in the subdivision dealing with the technical skills of teaching, topics such as stimulus variation, establishing set, questioning, pacing, reinforcement, establishing appropriate frames of reference, and promoting closure might be treated. An instructional module could be developed for each topic in each subdivision of each core area. Certain objectives which may not lend themselves to modular treatment could be handled either through seminars or field experiences. The sum total of everything included in the five core areas constitutes the program scope.

The problem of sequencing all of the modules, seminars, and field experiences may be solved by placing all objectives in a dependent hierarchy and then breaking them into blocks which would, on the average, require about the same amount of time to complete as a course in the regular program. To illustrate, assume that the traditional program is a twenty-four hour sequence. In this case it would divide into eight blocks if one planned to use the same time for the PBTE program that was available in the traditional program. How many modules, seminars and field experiences are placed in each block will depend on estimates of how much time is required for their completion. In a typical block, modules are present from all core areas thus promoting program integration.

## Development

Developing and locating needed materials etc. is the second stage in the process of organizing a PBTE program. This is perhaps the most time consuming task of all. It includes: (1) the identification of module design, (2) write modules and develop materials, (3) identify seminars, and (4) field experiences curriculum.

Identify module design. The identification of a design to be used in constructing modules is one element of program development. Although terms differ (learning module, instructional module, etc.) definitions are very similar. Stated simply, an instructional module, or IM for short, is a planned series of learning experiences which are designed to help the learner accomplish certain specific objectives. An IM should individualize instruction so the learner is able to: (1) identify the objectives, (2) progress at his own rate in his own learning style, (3) identify his strengths and weaknesses, and (4) recycle when objectives have not been achieved.

In order to achieve its purposes, an IM should include: (1) a statement of objectives, (2) a pretest to determine if the learner already possesses the desired behaviors, (3) a rationale to explain the value of the IM, (4) a series of instructional alternatives from which the learner can select the one most appropriate for him, (5) a posttest to measure accomplishment of the objectives, and (6) a resources section which lists needed books, materials, and supplies.

Write modules and develop materials. Writing modules (or locating available ones which fill the need) and developing materials can be done, in most cases, by the regular faculty. This is an excellent way to get at staff development. For topics which are outside <sup>the</sup> area of expertise of the regular faculty, individuals may be contracted with to produce the desired materials.



Seminar curriculum. Because some objectives cannot be accomplished through the utilization of I's, provision for regular seminars should be made. Structured as well as unstructured activities may be included. Seminars should be conducted in a warm, open, and supportive atmosphere. Many of the affective program concerns may be dealt with if this type of climate prevails.

Field experiences. Although field experiences include student teaching types of activities, they are by no means limited to this narrow interpretation. In addition to meeting the needs which are normally achieved through the traditional practicum, field experiences may include community related experiences. Furthermore, activities pursued in this core should take place throughout the training period and not be attempted through the customary "one-shot" approach.

### Implementation

Implementing an adequately researched and developed PBTE program requires attention to three major concerns: (1) logistical considerations, (2) establishment of a teacher education laboratory, and (3) intern selection. The implementation phase is one of the most exciting because it is the point where all that has been done is applied. The feeling that accompanies implementation might be thought of as analogous to the anticipation experienced by an inventor who is about to plug in his recently completed electrical gadget. He wonders if it is going to work, and he is about to find out -- the moment of truth is at hand.

Logistical considerations. One very important aspect of the implementation effort is the way logistical considerations are treated. Some of the questions which must be answered are: "What kinds of records are necessary, and how will they be kept?" "How will scheduling problems be handled?" "How will the administration of pre- and posttests be handled?" "How will the various inputs be used to make second generation changes?" The computer can be utilized in dealing with many of these items. For example, information can be kept and

retrieved if proper coding is established relative to such factors as general student information, entering conceptencies, test results, instructional alternatives selected, and so on.

Teacher education laboratory. Vital to the successful implementation of a PBTE program is the provision of a teacher education laboratory where interns can practice the behaviors they are expected to master. Adequate space, materials, and hardware must be provided in order for learners to be able to develop and apply appropriate skills and techniques. The lab should be structured such that opportunities are available for the student to practice their skills in a situation that is as close to the real world as possible. If utilization of media is emphasized, learners should be able to practice this in the course of a live presentation. Teaching should be real and only important concepts should be included and emphasized.

Intern selection. Part of the implementation phase involves the selection of interns to participate in the program. Many criteria have been proposed, but the most important items seem to be the amount and kind of prior training, individual commitment to PBTE, and class standing. Other factors sometimes included are ethnic group membership, language facility, and test data related to prior education. No matter what kind of criteria are used, it would be logical to assume that the focus should be upon recruiting students who want to become good teachers and not just ones who want to get a college degree.

### Evaluation

No matter how effective one may think a program is going to be, preplanned evaluation procedures should be built in to document results and provide data for making decisions relative to need<sup>ed</sup> revisions.

Module effectiveness. In a program such as the one proposed herein, a major concern should be the effectiveness of the interaction with instructional materials in terms of the development of desired behaviors. Assuming that sufficient data has been gathered throughout the program implementation, it will be a relatively simple matter to determine the success of the various instructional modules in doing what they were designed to do.

Intern effectiveness. The ultimate yardstick of intern effectiveness will be their ability to produce desired changes in students' behavior. This type of measurement of effectiveness, product evaluation, is the only true way to verify the ability of teachers in a longitudinal fashion. However, the absence of this type of data need not stifle all attempts to measure intern effectiveness. The use of criterion referenced testing will enable one to make some intelligent statements about present competence and future effectiveness.

Criterion testing. The primary vehicle presently being utilized to determine performance competency is criterion-referenced testing. This approach is not concerned with norm-referenced performance, but rather with the measurement of performance in terms of a given standard or level of acceptability. Criterion-referenced testing (CRT) addresses itself to process and product measures rather than verbal or knowing how types of evaluation. A one to one correlation should always exist between objectives and CRT items. Where traditional norm-referenced tests have sought to rank learners, CRTs seek to measure the effectiveness of the interaction of the learner with the instructional materials and processes.

In conclusion, it may be said that a modularized PBTE program offers significant opportunities for increasing the effectiveness of future teachers. In so doing, it will increase the feeling of dignity and worth of each person involved because it generates a sense of competence in dealing with the

teaching-learning environment as a result of the ability to perform rather than just verbalize.

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