To strengthen the concept of a curriculum-planning component in competency/performance-based teacher education (C/PBTE) and to fill the need for centralized physical facilities for the multiprogram characteristics of C/PBTE programs, a housing structure called the C/PBTE Module Laboratory is proposed. This laboratory would be used for producing, storing, and utilizing programs, program components, module clusters, and individual modules. The anatomy of the total centralized physical structure is depicted in the following substructures: a) Competency/Module Catalogue Index (with index cards containing the necessary data to locate and describe all materials in the laboratory; b) Creation Center/Module Bank (a place where faculty team members can engage in writing learning materials and modules and where operational materials can be stored and displayed); c) videotaping station; d) video tape playback station; e) independent study carrels; f) multiple activity room; g) work tables; h) pre/post-assessment station; and i) planning and counseling station. (Detailed diagrams of the substructures are available from the author upon request.) (JA)
THE C/PETE MODULE LABORATORY: CREATING, STORING, AND UTILIZING
COMPETENCY/PERFORMANCE-BASED UNITS OF INSTRUCTION

by

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Competency-based education promises to provide the much needed thrust for thorough changes to meet the challenge of a changing society. However, this change cannot be implemented with halfway measures or with halfhearted support, lest it too suffer the fate of other promising approaches that have been supported inadequately.¹

Those educators who are attempting to implement the concept of competency/performance-based education at their respective institutions should be heedful of this poignant statement concerning the necessary support and commitment for program success. Scrutinization of initial evaluation feedback tends to indicate that a number of problems or snafus in competency/performance-based teacher education² are directly related to the inadequate and decentralized support facilities. Obviously, the question must be raised whether practitioners have vastly


²Hereafter referred to as C/PBTE or Competency/Performance-Based Teacher Education.
underestimated the necessity of creating an effective learning environment which allows the philosophy of competency/performance-based education to operate with optimum efficiency.

Elam's early treatise on competency/performance-based education clearly stresses the need for multi-program characteristics: teacher/student cooperative planning, self-paced study, individualization, personalization, independent study and alternative means of instruction. While a number of on-going C/FBTE programs have continued to give lip service to these philosophical characteristics, few have identified how to functionalize them. At the same time, an even fewer number of C/FBTE programs have identified an architectural structure for producing and utilizing units of instruction or modules, which are essential packages for operationalizing the philosophy of competency/performance-based education.

Faculty members who are presently operating under the umbrella of competency/performance-based education at Kansas State University have been extremely cognizant of the need for centralized physical facilities. In

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A module is a set of learning activities (with rationales, objectives, prerequisites, pre-assessment, instructional activities, post-assessment, challenge activities, and remediation) intended to facilitate the student's acquisition and demonstration of a particular competency.
response to this felt need, the author has proposed a housing structure called the C/PBTE Module Laboratory which would be used for producing, storing and utilizing programs, program components, module clusters, and individual modules.

THE C/PBTE MODULE LABORATORY

At least nine components or individual housing units are contained in the proposed C/PBTE Module Laboratory. The anatomy of the total centralized physical structure is depicted in the following substructures:

1. Competency/Module Catalogue Index. The Catalogue Index serves as the major method of identifying and locating competencies and/or modules which make up the competency-performance-based teacher education program. Information on the index cards contain the necessary data to locate all materials in the C/PBTE Module Laboratory and depict the following information: (1) competency and/or module title, (2) rationale concerning the module, (3) objectives of the module and (4) retrieval equipment including materials necessary for engaging in the learning activities. The Competency/Module Catalogue Index can be organized alphabetically according to competency or the competencies can be arranged in sequential order according to how they are to be

5Detailed diagrams of the substructures are available upon request from the author.
acquired and demonstrated by the student (prospective teacher). The Catalogue Index has two main functions: (1) to allow quick and systematic identification of competencies and/or modules and (2) to provide a systematic method for adding and deleting competencies and/or modules in the teacher education program.

2. **Creation Center/Module Bank**. The major activity hub in the C/PBTE Module Laboratory is the Creation Center/Module Bank. As the name denotes, it has two central purposes: (1) a place where the faculty team members can cooperatively engage in writing modules and/or creating material for the various learning activities and (2) a place for storing and displaying operational modules. Since the Creation Center/Module Bank is the nucleus of the Module Laboratory, all media retrieval systems including tape recorders, film projectors, and overhead projectors, etc. are considered essential items of equipment. Multiple kinds of reproduction hardware and accompanying materials should also be accessible for faculty and student utilization.

3. **Videotaping Station**. One of the more important substructures contained in the C/PBTE Module Laboratory is the Videotaping Station. Adequate videotaping and micro-teaching facilities are the heart of the C/PBTE Module Laboratory since considerable emphasis is placed on the student's ability to demonstrate specific teaching behaviors.
or skills. The primary purpose of the Videotaping Station is to allow students to practice or demonstrate those competencies identified in the objectives of the module. This substructure also serves as a valuable production center for faculty team members who are creating training or protocol materials for the various learning activities specified in the modules. As training materials are produced, they may be moved to the Creation Center/Module Bank where they can be permanently stored.

4. Videotape Playback Station. The Videotape Playback Station has multiple advantages in the C/PBTE Module Laboratory. The major advantage of the Playback Station is that continuous and immediate feedback can be given to students as they engage in videotaping or microteaching sessions. After videotaping, students may, almost instantaneously, view, listen and react to their teaching performance. Secondly, students may use this room for viewing training or protocol materials as required in the learning activities. The third major advantage of the Videotaping Playback Station is that the substructure serves as a permanent location where students may be counseled as they view their performance.

5. **Independent Study Carrels.** A substantial number of modules contained in the C/PBTE program require or offer units of instruction on an independent study basis. Deployment of students on an independent study basis necessitates
facilities such as individual cubicles with accompanying retrieval equipment. This designated area becomes invaluable after the student's entering behaviors are ascertained and team members begin to provide for individual needs. Individual Study Carrels also provide a working area for those students engaging in challenge activities or modules exclusive to student's subject matter interest.

6. **Multiple Activity Room.** The number of varied activities scheduled in a C/PBTE program requires a specially designed room with flexible walls. Often times specific learning activities in the C/PBTE modules attempt to provide meaningful small and large group activities but available physical facilities restrict their feasibility. The Multiple Activity Room provides an environment where students and faculty can work together in multi-grouped settings. The Multiple Activity Room also lends itself to teacher-led instructional activities when required or specified in the program.

7. **Work Tables.** Work Tables in the C/PBTE Module Laboratory are critically important for students engaging in various activities unrelated to the other physical facilities. This work space permits students to peruse available curriculum materials associated with the competency or materials exclusive to their subject matter discipline. This all-purpose work space may also be used by students who
desire to produce materials, lesson plans and modules for their own classroom.

8. **Pre-Post Assessment Station.** The Pre-Post Assessment Station is established for two principle reasons: (1) maintaining individual student progress and (2) administering written portions of the pre-post assessment. While record keeping in competency/performance-based education has been considered absolutely essential, it has tended to become a cumbersome and laborious task for C/PBTE team members. This facility attempts to centralize the location for record keeping activities and should provide an area where students can review their progress on a periodic basis. The Pre-Post Assessment Station also provides a location where entering behaviors can be identified and a center where students can test out of the competency at their convenience. Complete student accessibility to the Pre-Post Assessment Station is quite essential if the non-time bound philosophy of C/PBTE is to become functional.

9. **Planning and Counseling Station.** A central location for program planning and faculty/student counseling is requisite for a well organized C/PBTE program. A common meeting area where team members can chart future activities and solve current problems is critically necessary during the various stages of program development. The Counseling Station allows faculty members to actualize the concept of personalization.
C/PBTE
MODULE LABORATORY

VIDEO TAPE PLAYBACK STATION

VIDEO TAPING STATION

PLANNING AND COUNSELING CENTER

INDEPENDENT STUDY CARRELS

PRE-POST ASSESSMENT STATION

WORK TABLES

MULTIPLE ACTIVITY ROOM

PRESENTATION/STUDY CARRELS

CREATION CENTER/MODULE BANK

COMPETENCY/MODULE CATALOGUE INDEX
by counseling students on a one-to-one basis. Students who have individual problems or desire to provide input for program modification may interact with faculty team members at this location. The Planning and Counseling Station should be physically arranged and acoustically designed for promoting meaningful dialogue between students and faculty team members.

ADVANTAGES AND DISADVANTAGES OF THE C/PBTE MODULE LABORATORY

As educators gain experience in the C/PBTE philosophy, the necessity of centralized physical arrangements becomes more apparent. What follows is a nonprioritized listing of the advantages for the C/PBTE Module Laboratory:

1. The C/PBTE Module Laboratory becomes a centralized location for learning as well as teaching. It is a place where learners can become deeply involved in learning and teachers can become deeply involved in teaching.

2. The C/PBTE Module Laboratory allows the program to personalize and individualize instruction which has been difficult if not impossible with decentralized facilities.

3. The centralized facilities maximizes the student's opportunity to engage in material creation for classroom utilization. The skills of design and production are learned within the context of this physical arrangement.

4. The C/PBTE Module Laboratory fosters cooperative working relationships between and among faculty team members.

5. The centralized facilities allows team members to project a positive humane approach to learning and teaching.

6. The centralized location of all physical facilities minimizes managerial problems commonly found in newly initiated C/PBTE programs.
7. The C/PBTE Module Laboratory provides for systematic procedures in producing and absorbing new competencies and modules into the teacher education program. Such procedures reduce the possibility of overlap or duplication of faculty effort and materials.

8. The C/PBTE Module Laboratory provides a centralized facility which fosters a sense of identify and security for faculty team members and students.

While the advantages of a centralized physical structure appear to be quite bountiful, a number of problems are associated with the C/PBTE Module Laboratory:

1. Financial and budgetary constraints commonly found in higher education may be one of the major obstacles preventing the creation of centralized facilities in C/PBTE programs.

2. Current physical facilities may not permit or lend themselves to a restructured centralized physical arrangement.

3. The amount of time and planning necessary to centralize the physical facilities may create greater complications for educators initiating new C/PBTE programs.

4. The amount of time, money and space allocated to the C/PBTE Module Laboratory may be in competition with other important innovations in teacher education.

FUTURE

Competency/performance-based education is at a critical stage of development in many educational institutions throughout the United States. Educators implementing these new programs have found their efforts to be exhausting and time consuming. Of equal concern is the exorbitant amount of frustration and anxiety shown by students as they climatize themselves to the new philosophy. The suggested centralized and coordinated
physical facilities may appear to be an oversimplified answer to complex problems inherent in the philosophy of competency/performance-based education. However, four years of experience in C/PBTE programs has led the author to conclude that the learning environment is one of the more important variables determining program success. Only with centralized physical facilities, such as the C/PBTE Module Laboratory, can we hope to produce better satisfied and more productive teachers. Physical facilities must continue to receive the highest priority as we expand and develop new competency/performance-based teacher education programs.