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ABSTRACT

Examined in a national survey of 258 special education teacher training programs in colleges and universities were program components of federally funded competency based (DBTE) programs and federally funded noncompetency based (NCBTE) programs. Department chairpersons answered mailed questionnaires specific for either a CBTE a NCBTE program. Findings included the following: More than 60 percent of chairpersons indicated that they administered categorical CBTE or NCBTE programs. The majority of students in both the CBTE and the NCBTE programs were in the bachelor's level programs. More students were enrolled in the area of mental retardation than any other category. The majority of CBTE programs were begun as a result of either federal funds or legislative mandates. The essential program components as listed by department chairpersons were similar for both CBTE and NCBTE programs. Most CBTE programs had developed printed nonpublished instructional packages, whereas, most NCBTE programs had not developed such materials. The most frequently mentioned strongest program components for the CBTE programs were learning packets, individual study, and practicum; while practicum was listed as the strongest program component for NCBTE programs. Further research is recommended in such areas as delineation of the essential components relevant to CBTE. (DB)

COMPETENCY BASED AND NONCOMPETENCY BASED PERSONNEL PREPARATION PROGRAMS IN SPECIAL EDUCATION

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THE NEED FOR INVESTIGATING COMPETENCY BASED TEACHER EDUCATION

A review of the literature would indicate that competency based teacher education (CBTE) is one of the most widely discussed issues in education today (Blackburn, 1974; Bullock, Dykes, & Kelly, 1973; Broudy, 1972; Cooper & Weber, 1972; DeVault, Anderson, & Dickson, 1973; Eisner, 1969; Elam, 1971; Howsam & Houston, 1972; Keller, 1968; Merwin, 1974; Popham & Baker, 1970; Rosner & Kay, 1974; Schmeider, 1973a, 1973b, 1973c; Shores, Cegelka, & Nelson, 1973). Competency based teacher education, as utilized in preservice and inservice teacher education, has been described as the most significant lever for educational reform since Sputnik and as one of the most influential and important developments in the progressive movement to advance the process of schooling (Rosner & Kay, 1974).

The movement to shift teacher education to performance based and to make demonstrated teaching competence the criterion for certification began about five years ago (DeVault et al., 1973; Massanari, 1971; Villeme, 1974; Wilson & Curtis, 1973). Today there is a relatively small number of established CBTE programs. Although there is considerable exchange of ideas and information, competency based teacher education developments are largely uncoordinated (Broudy, 1972; Furst & Rosenshine, 1971; McDonald, 1974; Rosner, 1973; Rosner & Kay, 1974).

Typically, institutions have built programs to their own specifications, although each in some way uses the ideas and experiences of others. Thus, the competencies for which teachers are trained vary considerably from program to program (McDonald, 1974; Stainback & Stainback, 1973). Usually programs have a relatively primitive system for assessing competencies and because they are new the effectiveness of most competency based programs has not been formally evaluated (Broudy, 1972).

According to Rosner (1973), in CBTE the preparation of teachers is viewed as a mutual responsibility of colleges, public schools, and communities. As a result, renewed efforts have been made to establish cooperative programs not only within college/university settings but within other institutions in the community as well (Massanari, 1971). Program decisions then are possible after all participating parties have contributed information and ideas relevant to their needs for training.

Competency based programs, according to Elam (1971) and Schmeider (1973a, 1973b, 1973c), differ from state to state, and from research project to model program; therefore, the variety of characteristics of CBTE programs may account, at least partially, for their widespread appeal. The absence of clearly defined characteristics may account for the numerous misconceptions and controversies about what CBTE is (Broudy, 1972; Cooper & Weber, 1972; Schmeider, 1973a, 1973b, 1973c). Failure to delineate what characterizes a CBTE program and the apparent rush to implement aspects of CBTE or to claim that it is now in effect, may very well be what underlies the lack of consensus about what constitutes a CBTE program. This lack of agreement contributed to the belief that

reports on the extent of implementation of CBTE programs are actually a function of the definition of CBTE espoused by the reporters.

Numerous components which characterize CBTE have been applied to regular education and have been discussed by proponents of CBTE (Bullock, Justen, Guetzloe, Mintz, & Scriven, 1972; Bullock et al., 1973; Burke, 1972; Broudy, 1972; DeVault et al., 1973; Elam, 1971; Howsam & Houston, 1972; Maxwell, 1974). These components have been refined, extended, and applied to other areas of educational concern, including special education (Blackburn, 1974; Bullock & Whelan, 1971; Bullock et al., 1973; Shores, Cegelka, & Nelson, 1973). However, no research has been reported which clusters the major characteristics of competency based teacher education programs and field-tests them with training models to assess whether a program could indeed be characterized as a CBTE model. The study herein focused on the major characteristics of CBTE and non-competency based teacher education as applied to special education teacher training.

REVIEW OF THE LITERATURE

Competency Based Teacher Education

A major question emanating from the competency based teacher education (CBTE) movement today is, how is teaching competency to be defined? The range of positions taken on this issue can be framed by a series of questions: (a) Is demonstrated mastery of knowledge about teaching to be considered teaching competency? (b) Is skill in performing the behaviors or tasks of teachers the meaning to be given teaching competency? (c) Is teaching competency a term to be applied only to the demonstrated ability to bring about the outcomes desired of a teacher in a certified teaching position? These questions represent markedly different requirements for program structure and operation (Broudy, 1972; Elam, 1971).

Within the general framework a variety of views are held. Some teacher educators (Dodl, 1973; Joyce & Weil, 1972; Furst & Rosenshine, 1971) for example, equate competency with attainment of a minimal level of performance. Authors (Shores, Cegelka, & Nelson, 1973; Turner, 1972) with this point of view insist that the determination of teacher competence can be effectively made by assessing the behavioral changes in pupils.

Schalock (1972) argues that distinctions should be made between basic knowledge, skill, and the consequence of teaching. In addition,

Schalock (1972) indicated that the term competency applies only to higher order skills or the behavioral changes brought about in the learner. The authors of the Final Report of the Committee on National Program Priorities in Teacher Education (CNPPTE, 1971) reserved the term "competency based teacher education" for programs which accept measures of "the effects of training on a teacher's behavior under actual classroom conditions" as measures of teacher effectiveness. Kemmis and Stake (1974) regard CBTE as a technical term excluding teacher education efforts that emphasize other measures of competence.

The CNPPTE (1971) report pointed out that its criterion of effectiveness is

> highly useful in teacher education programs since one may observe teachers to determine explicitly whether they evidence the behavior which a particular preparatory program claims to be producing. (p. 35)

According to Andrews (1972) the argument ultimately comes down to a matter of the kind of evidence one is willing to accept as a predictor of the success of teachers.

There are problems in determining which teacher competencies to pre-specify (Kemmis & Stake, 1974). Ideally, the list must be short because the development of specific instructional programs and the assessment components are expensive and because training to develop mastery is time consuming. However, the list must emphasize the range of skills valued by experienced teachers and administrators.

The problems of behavioral specifications have been inventoried by Broudy (1972) and Eisner (1969). These authors doubt that (a) many

important objectives can be stated behaviorally, (b) difficult-to-state objectives will survive in the presence of a surfeit of highly explicit objectives, or (c) that criterion testing situations approximate the life uses of learning. The advocates of CBTE (Broudy, 1972; Elam, 1971; Howsam & Houston, 1972) suggest that there are certain important behaviors which must be mastered by all teachers. Stake (1973) argued that there are none.

Application of CBTE Principles to Teacher Preparation Programs

Voluminous studies and monographs on CBTE (Broudy, 1972; Cooper & Weber, 1973; Dodl, 1973; Furst & Rosenshine, 1971; Howsam & Houston, 1972; Joyce & Weil, 1972; Schalock & Garrison, 1973) attest to the growing belief that teacher training can be significantly improved by redesigning programs to focus upon the principles and practices espoused by competency based curriculum design. Unfortunately, the implementation of these principles and practices most often terminate with the initial employment of the teacher. However, if the long-range goals of the competency based model are to be attained, the program must be extended to include continuing training experiences which take place throughout the professional employment period (Burdin & Mathieson, 1972).

It is generally agreed (Broudy, 1972; Cooper & Weber, 1973; Dodl, 1973; Elam, 1971; Houston, 1973; Schalock, 1972) that in order to implement a competency based program specifically designed materials are essential. Resource materials or learning modules to be considered

for a competency based program must include (a) prespecified objectives (competencies); (b) techniques for assessing the achievement of those objectives; (c) opportunities for decision making regarding training preferences based on successful mastery of objectives; and (d) recycling potential (McAshan, 1974).

Current literature (Cooper & Weber, 1973; Dodl, 1973; Elam, 1971; Houston, 1973; Schalock, 1972) abounds with references to CBTE programs which usually employ one or more of the variant forms of the self-instructional module. Whether these innovative programs use appellations such as learning packets, individual instructional kits, proficiency modules, or self-instructional modules (Merwin & Schneider, 1973) the objectives are the same as independent study, auto-instruction, and individualized learning experiences for teacher trainees.

Special Education Teacher Programs. Recently there have been concerns in the field of education to emphasize the importance of providing training programs for special educators. Blatt (1966) reviewed studies conducted on ceacher training over a ten year period and discovered that there were no major experimental studies and only a limited number of descriptive studies listed. Jones (1966) studied the characteristics of effective special education teachers, while Morse (1966) described a crisis teacher model which emphasized the use of special teachers who were trained to provide emotional support as well as tutor children in the regular classroom who exhibited emotional problems.

Peck and Dingman (1968) proposed the need for clearly defined behavioral objectives for training teachers before any successful research

should be conducted while Dunn (1968) stated the need for the preparation of clinical educators to conduct diagnostic and prescriptive teaching and a support group of special educators to serve as resource teachers to assist elementary teachers in classroom management. McKenzie, Egner, Knight, Perelman, Schneider, and Garvin (1970) described a consulting teacher program in which the criterion of success was the learner's performance.

Lilly (1971) reported that newer models for training noncategorical supportive personnel was needed. A similar model for training classroom teachers, resource personnel, and educators in interrelated areas has been proposed by Wiegerink (1973, 1974) and Wiegerink and Currie (1972). Schwartz (1971) described a clinical educational model for providing services for a broader range of handicapped children. Reger and Koppman (1971) proposed a resource room model which provides additional educational services for the exceptional child while he remains in the regular classroom. The success of any of these programs is dependent on the quality of personnel trained to implement them.

Numerous researchers (Bullock, Dykes, & Kelly, 1973, 1974; Bullock & Whelan, 1971; Mackie, Kvaraceus, & Williams, 1957; Meyen, Connolly, Chandler, & Altman, 1971) have attempted to delineate and/or validate specific competencies needed by special education personnel. Bullock and Whelan (1971) attempted to validate competency statements of teachers in an earlier study (Mackie, Kvaraceus, & Williams, 1957). Bullock, Dykes, and Kelly (1973, 1974) delineated and field-tested 123 competencies needed for teaching emotionally disturbed and socially maladjusted learners. The project at the University of Missouri at

Columbia (Meyen, Connolly, Chandler, & Altman, 1971) used teachers, administrators, and other resource personnel to develop a list of competencies needed by curriculum consultants in special education.

Summary

The review of the literature on competency based regular education as well as special education teacher training provided the reader with an array of data. Most of the research focused upon the competencies needed by teachers; however, the competencies generally were more relevant to a particular training model than to a teacher preparation program in general. Other studies concentrated on observations of teacher behavior affecting changes in student behaviors with little or no emphasis placed on the student's output as a result of this change. Specific competencies, although associated with a particular project, do provide a reasonable base for developing a competency based training program in general education which could train more effective teachers.

Although many teacher preparation institutions proclaim to administer competency based programs, there have been no reported attempts to differentiate between CBTE and noncompetency based teacher education (NCBTE) programs. It appears to these writers that research should be conducted to analyze the components and characteristics of CBTE and NCBTE programs.

PROCEDURES UTILIZED IN THE STUDY

Definition of Terms

Categorical teacher preparation program refers to a teacher preparation program and curricula which provides a model for instruction of exceptional learners who are grouped according to characteristics rather than goals.

Competencies refer to specific knowledge, skills, and behaviors to be demonstrated by the learner prior to the completion of a teacher preparation program. The criteria to be employed in assessing the competencies are specified and the rate of progress is determined by the learner's achievement.

Competency based teacher education (CBTE) refers to a program which requires the specification of competencies demonstrated by the learner and makes explicit the criterion to be applied in assessing the learner's competencies, and holds the learner accountable for meeting those criterion. The terminology is often used interchangeably with performance based teacher education (PBTE) (Cooper & Weber, 1973, p. 21). CBTE programs may be either (a) categorical or (b) noncategorical.

Components refer to the working parts of a system and are dictated by the processes required in order to achieve the purposes of a system.

That is, they are the resources that interact to create processes designed to achieve the system's purpose. In a teacher preparation program, components include instructors, instructional hardware and software, and educational facilities (Cooper & Weber, 1973, p. 2).

Module refers to a unit of learning which is designed to be relatively self-contained, and which provides clear specification of learning objectives, an array of learning activities, assessment procedures, and learner accountability (Blackburn, 1974).

Modularized self-pacing instruction refers to instructional methods which allow students to move through course requirements at the students' own pace. Course objectives, learning activities, and assessment activities are given to the students in the form of a module. Ideally, in modularized instruction, objectives are held constant and time varies (Weber & Rathbone, 1973).

Noncategorical teacher preparation program refers to a teacher preparation program and curricula which provides a model for the instruction of exceptional learners who are grouped according to goals rather than characteristics.

Noncompetency based teacher education (NCBTE) refers to a program which does not require the specification of competencies to be demonstrated by the learner; neither does it make explicit the criterion to be applied in assessing the learner's competencies. NCBTE programs may be either (a) categorical or (b) noncategorical.

The Purpose of the Study

The purpose of this study was to examine certain program components of (a) federally funded special education teacher preparation programs

that were designated by department chairpersons as being competency based and (b) federally funded teacher preparation programs in special education that were designated by department chairpersons as not being competency based. Several questions were investigated.

1. What types of special education programs are offered, whether CBTE or NCBTE, categorical or noncategorical?
2. What is the distribution of students and faculty and the types of degrees awarded in CBTE and NCBTE categorical programs?
3. When were categorical CBTE degree programs in special education initiated?
4. What has served as the impetus for developing CBTE and NCBTE special education programs, whether categorical or noncategorical?
5. What are the essential components of CBTE and NCBTE, categorical and noncategorical teacher preparation programs in special education?
6. How are CBTE and NCBTE, categorical and noncategorical, programs administered?
7. How are the program components of CBTE and NCBTE, categorical and noncategorical, evaluated by department chairpersons?

The Population Utilized in the Study and Administrative Procedures

The population selected for the initial investigation included all colleges and universities whose names were obtained from the Programs

for Professional Training in Special Education, Bureau of Education for the Handicapped (United States Department of Health, Education and Welfare, 1973) and which offered degrees in one or more areas of special education at the undergraduate and/or graduate level. The initial inquiry included N403 federally funded programs representing N285 colleges/universities. All 50 states in the United States of America and Puerto Rico were represented. The department chairperson for each of the N403 programs was mailed a prepaid response card and was asked to indicate (a) whether he administered a competency based or non-competency based program, and (b) if he would be willing to provide additional information regarding his program.

The population finally selected for participation in this study was department chairpersons who administered professional training programs in special education in colleges/universities listed in Programs for Professional Training in Special Education, Bureau of Education for the Handicapped (United States Department of Health, Education, and Welfare, 1973), and who indicated on the response card a willingness to provide additional information regarding the programs being administered.

Each department chairperson who returned the completed response card and who indicated a willingness to provide additional information regarding the programs under his administration was mailed one of two questionnaires. Each department chairperson who indicated that he administered a CBTE program was mailed Questionnaire Packet A which was especially designed for CBTE programs; whereas, each department chairperson who indicated that he administered a NCBTE program was

mailed Questionnaire Packet B, which was especially designed for NCBTE programs. Each questionnaire packet contained (a) a letter of transmittal, (b) definition of terms, and (c) the questionnaire. A self-addressed stamped envelope was included with each questionnaire packet.

A postal card reminder was mailed five days following the initial mailing to all department chairpersons for the purposes of (a) informing them that a questionnaire packet had been sent and requesting that they notify the investigator if it had not been received, (b) thanking them for their participation in the study, and (c) reminding them of the timelines established for returning the questionnaire. A telephone call was made to all department chairpersons who failed to return the questionnaire by the specified time.

The Design and Statistical Procedures

The data are tabulated, analyzed, and reported in descriptive form. Tables showing appropriate categories, classifications, and corresponding percentages are used in reporting the data.

THE FINDINGS OF THE STUDY AND DISCUSSION

Department chairpersons from N403 federally funded teacher preparation programs representing N285 colleges/universities which offered degrees in one or more areas of special education at the undergraduate and/or graduate levels in the United States of America and Puerto Rico were mailed a prepaid response card asking them to respond to two questions: (a) Is the Department of Special Education at your institution presently using a competency based teacher education model?, and (b) If requested to do so, would you be willing to provide additional data about your training program. Two hundred ninety-three (N293; 73.0%) response cards were returned.

The N293 response cards from the department chairpersons who agreed to participate in the study were divided into three representative categories: (a) competency based teacher education (CBTE); (b) noncompetency based teacher education (NCBTE); and (c) not applicable. The latter category was used for those response cards where individuals were willing to participate, but who indicated on the card that the stages of their program development would make it impossible for them to provide definitive information. These department chairpersons were not asked to provide further information. There were N140 (47.8%) department chairpersons who indicated that they administered CBTE programs and were mailed Questionnaire Packet A which was especially

designed for CBTE programs; whereas, N118 (40.3%) department chairpersons who indicated that they administered NCBTE programs were mailed Questionnaire Packet B which was especially designed for NCBTE programs. There were N35 (11.9%) department chairpersons who were not used in the study.

A total of N258 questionnaire packets were mailed, of which N197 (76.4%) were completed and used in the study. Of the N140 Questionnaire Packet As mailed, N119 (85.0%) were completed and used in the study. There were N118 Questionnaire Packet Bs mailed, of which N78 (66.0%) were completed and used in the study. The data obtained are organized and presented under seven major headings corresponding to the questions posed in Chapter III.

Types of Special Education Programs Offered

Data presented in Table 1 provides an overview of all the CBTE and NCBTE, categorical and noncategorical, programs utilized in this study. There was a total of N119 CBTE programs included in the study, of which N73 (61.3%) were identified by department chairpersons as being categorical; whereas, N46 (38.7%) were identified as being noncategorical. There were N78 NCBTE programs included in the study, of which N46 (58.9%) were identified as being categorical and N32 (41.1%) were identified as being noncategorical. A comparison of the number of students in all programs with the total number of faculty, revealed that the faculty-student ratio was lower in CBTE programs (20:1) than in NCBTE programs (31:1).

Table 1

Overview of Teacher Education Programs in Special Education on Which Data was Obtained Reported by Competency Based and Noncompetency Based and Categorical and Noncategorical as Reported by Department Chairpersons

Type of Program	Programs Reporting		Reported Faculty		Reported Students		Reported Number of Students by Degree Programs							
							Bachelor's		Master's		Specialist		Doctorate	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
CBTE														
Categorical	73	61.3	894.5	83.4	18,970	86.3	13,886	98.7	4,956	65.1	46	57.5	82	35.3
Noncategorical	46	38.7	178	16.6	3,022	13.7	178	1.3	2,660	34.9	34	42.5	150	64.7
Total	119	100.0	1,072	100.0	21,992	100.0	14,064	100.0	7,616	100.0	80	100.0	232	100.0
NCBTE														
Categorical	46	58.9	597.5	85.9	18,800	87.7	11,633	86.0	6,692	93.9	375	57.7	100	73.5
Noncategorical	32	41.1	98	14.1	2,643	12.3	1,896	14.0	436	6.1	275	42.3	36	26.5
Total	78	100.0	695.5	100.0	21,443	100.0	13,529	100.0	7,128	100.0	650	100.0	136	100.0
Total of CBTE and NCBTE	197		1,767.5		43,435		27,593		14,744		730		368	

Distribution of Students and Faculty and Degrees Awarded in Categorical CBTE and NCBTE Programs in Special Education

Data provided in Tables 2 and 3 illustrate the distribution of students and faculty and the degrees offered by CBTE and NCBTE categorical special education programs. Data provided in Table 4 show the total number of students reported by degree level for all CBTE and NCBTE categorical and noncategorical programs. The size of the special education faculty in colleges/universities reporting CBTE categorical programs totaled N894.5 (83.4%); whereas, only N178 (16.6%) faculty members were assigned to CBTE noncategorical programs. Some faculty members were listed as part-time and were so designated. The number of faculty members assigned to NCBTE categorical programs totaled N597.5 (85.9%) and N98 (14.1%) were identified with NCBTE, noncategorical programs.

A total of N43,435 students were enrolled in all CBTE and NCBTE, categorical and noncategorical programs represented in this study. Of this number only N5,665 were in noncategorical programs.

CBTE Categorical Programs. Data on students in categorical programs were analyzed by areas of specialization and degree level. The largest number of students (N7,970; 42.0%) were majoring in mental retardation. The area of mental retardation also accounted for the largest number of faculty (N386; 43.2%). The area of multihandicapped had the fewest number of students (N38; 0.2%) at all levels and the fewest number of faculty (N6; 0.7%). The area of learning disabilities far exceeded all other categorical areas at the master's level in the number of students enrolled.

Table 2

Students, Faculty, and Degrees Offered by CBTE Categorical Programs Reported by Number and Per Cent According to Area of Specialization as Reported by Department Chairpersons

Areas of Specialization	Students		Faculty		Degrees Offered							
					Bachelor's		Master's		Specialist		Doctorate	
	No	%	No.	%	No.	%	No.	%	No.	%	No.	%
Administration	134	0.7	18.5	2.1	86	0.6	42	0.9	0	0	6	7.3
Crippled and other health impaired	546	2.9	28.0	3.1	154	1.1	392	7.9	0	0	0	0
Deaf and hard of hearing	262	1.4	26.5	3.0	168	1.2	92	1.9	2	4.4	0	0
Early childhood	220	1.2	14.0	1.6	104	0.8	114	2.3	0	0	2	2.4
Emotional disturbance	1,668	8.8	80.0	8.9	1,432	10.3	234	4.7	0	0	2	2.4
Learning disabilities	3,590	18.9	152.0	17.0	290	2.1	3,292	66.4	0	0	8	9.8
Mental retardation	7,970	42.0	386.0	43.2	7,750	55.8	190	3.8	4	8.7	26	31.7
Multihandi-capped	38	0.2	6.0	0.7	27	0.2	11	0.2	0	0	0	0
Physical education and recreation	258	1.4	11.0	1.2	102	0.7	142	2.9	14	30.4	0	0
Speech and hearing	4,188	22.0	160.0	17.8	3,719	26.8	410	8.3	26	56.5	33	40.3
Visually handicapped	96	0.5	12.5	1.4	54	0.4	37	0.7	0	0	5	6.1
Total	18,970	100.0	894.5	100.0	13,886	100.0	4,956	100.0	46	100.0	82	100.0

Table 3

Students, Faculty, and Degrees Offered by NCBTE Categorical Programs Reported by Number and Per Cent According to Areas of Specialization as Reported by Department Chairpersons

Areas of Specialization	Students		Faculty		Degrees Offered							
					Bachelor's		Master's		Specialist		Doctorate	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Administration	197	1.1	9.5	1.6	0	0	60	0.9	115	30.7	22	22.0
Crippled and other health impaired	143	0.8	7.0	1.2	104	0.9	39	0.6	0	0	0	0
Deaf and hard of hearing	774	4.1	66.0	11.1	467	4.0	295	4.4	4	1.1	8	8.0
Early childhood	136	0.7	6.0	1.0	96	0.9	40	0.6	0	0	0	0
Emotional disturbance	2,782	14.8	123.5	20.6	1,862	16.0	886	13.2	8	2.1	26	26.0
Learning disabilities	3,200	17.0	58.0	9.7	1,024	8.8	2,136	31.9	32	8.5	8	8.0
Mental retardation	7,975	42.4	142.0	23.7	5,238	45.0	2,504	37.4	216	57.6	17	17.0
Multihandi-capped	0	0	0	0	0	0	0	0	0	0	0	0
Physical education and recreation	4	0.02	0.5	0.1	0	0	4	0.1	0	0	0	0
Speech and hearing	3,555	18.9	182.0	30.5	2,842	24.4	694	10.4	0	0	19	19.0
Visually handicapped	34	0.18	3.0	0.5	0	0	34	0.5	0	0	0	0
Total	18,800	100.0	597.5	100.0	11,633	100.0	6,692	100.0	375	100.0	100	100.0

Table 4

Number of Students Reported by Degree Level for All CBTE and NCBTE, Categorical and Noncategorical Programs as Reported by Department Chairpersons

Programs	Total Students	Degree Offerings			
		Bachelor's	Master's	Specialist	Doctorate
Categorical					
Administration	331	86	102	115	28
Crippled and other health impaired	689	258	431	0	0
Deaf and hard of hearing	1,036	635	387	6	8
Early childhood	356	200	154	0	2
Emotional-disturbance	4,450	3,294	1,120	8	28
Learning disabilities	6,790	1,314	5,428	32	16
Mental retardation	15,945	12,988	2,694	220	43
Multi-handicapped	38	27	11	0	0
Physical education and recreation	262	102	146	14	0
Speech and hearing	7,743	6,561	1,104	26	52
Visually handicapped	130	54	71	0	5
CBTE and NCBTE Tot.	37,770	25,519	11,648	421	182
Noncategorical					
CBTE:	3,022	178	2,660	34	150
NCBTE	2,643	1,896	436	275	36
Total	5,665	2,074	3,096	309	186
Total CBTE and NCBTE Categorical and Noncategorical	43,435	27,593	14,744	730	368

NCBTE Categorical Programs. The data reported for NCBTE programs represented 10 areas of specialization. There were no programs listed in the area of the multihandicapped. The largest total number of students (N7,975; 42.4%) was reported for the area of mental retardation. This held for all levels of training with one exception, that being at the doctorate level where the area of emotional disturbance reported the largest enrollment (N26; 26%).

Faculty-Student Ratio for Categorical Programs. Faculty-student ratios based on the total number of faculty and students reported for all CBTE and NCBTE categorical programs are reported in Table 5. The data obtained did not allow the researcher to establish faculty-student ratios by degree levels.

Table 5

Faculty-Student Ratios Based on Total Number of Students and Total Number of Faculty for CBTE and NCBTE Categorical and Noncategorical Programs as Reported by Department Chairpersons

Areas of Specialization	Type of Program	
	CBTE	NCBTE
Administration	7:1	21:1
Crippled and other health impaired	19:1	20:1
Deaf and hard of hearing	9:1	11:1
Early childhood	15:1	23:1
Emotional disturbance	21:1	23:1
Learning disabilities	24:1	55:1
Mental retardation	21:1	56:1
Multihandicapped	6:1	0
Physical education and recreation	23:1	8:1
Speech and hearing	26:1	20:1
Visually handicapped	8:1	11:1

Reported Initiation Dates by Degree Offerings for Categorical CBTE Programs in Special Education

Only those department chairpersons who received Questionnaire A were asked to provide information regarding the initiation date of their categorical CBTE programs and the degrees offered. There were no department chairpersons who reported the initiation of a CBTE program prior to 1970. The responses are presented in Table 6 by the reported year of initiation and degree offerings by categorical programs. For the five years reported, a significant increase in the total number of programs is evident.

Impetus for the Development of CBTE and NCBTE Special Education Programs Whether Categorical or Noncategorical

The department chairpersons were asked to indicate whether federal funds (Bureau for Education of the Handicapped) were used to develop any of their programs. If federal funds were used to develop any of their programs, they were asked to indicate the area of specialization.

Of the N119 department chairpersons who reported that they administered categorical CBTE programs, N109 responded to this section of the questionnaire. Eighty-seven (73.1%) of the chairpersons indicated that federal funds had been utilized for program development; whereas, N32 (26.9%) reported that federal funds were not utilized for program development purposes. In contrast, only N35 (44.9%) of the N78 department chairpersons who reported that they administered NCBTE categorical programs indicated that federal funds were used in program development.

Table 6

Reported Initiation Dates by Degree Offerings for Categorical CBTE Programs in Special Education as Reported by Department Chairpersons

Areas of Specialization	Degrees Offered (N73)																			
	1970				1971				1972				1973				1974			
	Bachelor's	Master's	Specialist	Doctorate	Bachelor's	Master's	Specialist	Doctorate	Bachelor's	Master's	Specialist	Doctorate	Bachelor's	Master's	Specialist	Doctorate	Bachelor's	Master's	Specialist	Doctorate
Administration										3				1		2				4
Crippled and other health impaired									3			2	4				1	2		
Deaf and hard of hearing									5	3		1								
Early childhood													7	11	1		1			3
Emotional disturbance	3	4			2	3			4	5			13	5		1	4	4		3
Learning disabilities									9	4			14	18		2	9	17		1
Mental retardation	3	2			1	5			6	3		4	21	16		1	18	20		
Multi-handicapped		1							2	6	1	3	3					3		
Physical education and recreation													4				3	2	1	
Speech and hearing	2								4	1			7	1		1	1			3
Visually handicapped																		6		
Total	8	7	0	0	3	8	0	0	33	25	1	10	73	52	1	7	37	54	1	13

Department chairpersons who reported administering CBTE programs, whether categorical or noncategorical, were asked, "Why did your department decide to embark upon a competency based teacher education program?" They were also asked to rank order their responses. The reasons reported are shown in Table 7. The impact of the use of federal funds is evident, in that all respondents listed federal funds in either first or second place rank order.

Essential Components of CBTE and NCBTE, Categorical and Noncategorical Teacher Preparation Programs in Special Education

The department chairpersons were asked to list the essential components of special education programs under their administration. All responses were tabulated and are reported in Table 8. An analysis of the data revealed that there were greater similarities than differences between programs which have been defined as being competency based or noncompetency based, whether categorical or noncategorical.

A series of questions pertaining to the essential components of programs, which elicited a yes or no response were posed to each department chairperson participating in this study. The specific questions posed and the responses are presented in Table 9.

How CBTE and NCBTE, Categorical or Noncategorical, Programs Are Administered

Department chairpersons who participated in this study were asked to respond to a series of questions dealing with the administrative aspects of program implementation. Each question was responded to by all of the participants.

Table 7

Reported Ranked Reasons for Embarking Upon a Competency Based Teacher Preparation Program in Special Education as Reported by Department Chairpersons

Reasons*	Categorical Ranking												Noncategorical Ranking											
	1		2		1-2		3		4		Total		1		2		1-2		3		4		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	
Legislative mandate	18	26.1	21	32.8	20	52.6	3	15.8	0	0	62	31.3	11	16.6	9	34.6	3	17.7	2	28.6	0	0	25	21.2
Federal funds	40	58.0	23	35.9	6	15.8	0	0	0	0	69	34.9	29	44.0	6	23.1	0	0	0	0	0	0	35	29.7
Special funds	0	0	2	3.1	0	0	2	10.5	3	37.5	7	3.5	2	3.0	1	3.9	0	0	0	0	0	0	3	2.5
Faculty decision	11	15.9	18	28.2	12	31.6	11	57.9	4	50.0	56	28.3	24	36.4	10	38.4	14	82.3	5	71.4	2	100.0	55	46.6
Dean of college	0	0	0	0	0	0	2	10.5	1	12.5	3	1.5	0	0	0	0	0	0	0	0	0	0	0	0
V.P. for academic affairs	0	0	0	0	0	0	1	5.3	0	0	1	0.5	0	0	0	0	0	0	0	0	0	0	0	0
Total	69	100.0	64	100.0	38	100.0	19	100.0	8	100.0	198	100.0	66	100.0	26	100.0	17	100.0	7	100.0	2	100.0	118	100.0

*All responses were tabulated.

Table 8

Reported Essential Components of Competency Based and Noncompetency Based, Categorical and Noncategorical Teacher Preparation Programs in Special Education as Reported by Department Chairpersons

Essential Components*	CBTE (N119)						NCBTE (N78)					
	Categorical		Noncategorical		Total		Categorical		Noncategorical		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Modules	78	17.6	22	23.9	100	18.5	20	11.4	14	20.9	34	14.0
Learning Packets	93	20.9	12	13.0	105	19.5	36	20.6	16	23.9	52	21.5
Assessment Procedures	97	21.8	17	18.5	114	21.3	51	29.1	6	9.0	57	23.6
Multi-resources	33	7.4	8	8.7	41	7.5	7	4.0	4	6.0	11	4.5
Guest Lecturers	26	5.9	6	6.5	32	6.0	15	8.6	10	14.9	25	10.3
Competencies Specified in Behavioral Terms	107	24.1	25	27.2	132	25.0	41	23.4	8	11.9	49	20.2
Others	10	2.3	2	2.2	12	2.2	5	2.9	9	13.4	14	5.9
Total	444	100.0	92	100.0	536	100.0	175	100.0	67	100.0	242	100.0

*All responses were tabulated.

Table 9

Questions Pertaining to the Essential Components of Programs Posed to Department Chairpersons and the Responses Obtained

Questions Pertaining to the Essential Components of Programs	CBTE (N119)				NCBTE (N78)				Total (N197)			
	Yes		No		Yes		No		Yes		No	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Are competencies (goals, objectives) categorized under major generic headings?	69	58.0	50	42.0	42	53.9	36	46.1	111	56.3	86	43.7
Has your department or faculty developed and published learning modules?	59	49.6	60	50.4	7	9.0	71	91.0	66	33.5	131	66.5
Has your department or faculty developed printed nonpublished instructional packages?	98	82.4	21	17.6	7	21.9	71	78.1	105	53.3	92	46.7
Is entrance to, or completion of, a module determined by time?	119	100.0	0	0	78	100.0	0	0	197	100.0	0	0
Are students allowed to complete course requirements at their own speed?	87	73.1	32	26.9	13	16.7	65	83.3	100	50.8	97	49.2
Are any of the instructional packages computerized?	3	2.5	116	97.5	38	48.7	40	51.3	41	20.8	156	79.2
Are video-taped lessons used for demonstration?	78	65.5	41	34.5	40	51.3	38	48.7	118	59.9	79	40.1
Are tapes, records, films, filmstrips or cassettes available to students?	119	100.0	0	0	78	100.0	0	0	197	100.0	0	0
Are proctors or managers employed to administer, score, or readminister unit and/or module assessments?	89	74.8	30	25.2	38	48.7	40	51.3	127	64.5	70	35.5
Are any opportunities available for the student to recycle through a unit or module?	70	58.8	49	41.2	46	59.0	32	41.0	116	58.9	81	41.1

Location of Instructional Modules. The participants were asked to provide information regarding where the instructional modules were housed. The responses are presented in Table 10. Overall, there were great similarities in the reported locations of the modular materials for both CBTE and NCBTE programs.

Meeting Module Criterion. The determination of who assumes the responsibility for making the decision of when the pre-established criterion level for any instructional module has been met was the intent of another question posed to department chairpersons. The responses are presented in Table 11. An analysis of the data reveals that in CBTE programs, the decisions that are made regarding when criterion levels have been met are more likely to involve two or more individuals than in NCBTE programs.

Types of Formal Assessments Utilized. Responses made by participants in this study regarding the types of formal assessments utilized by CBTE or NCBTE and categorical or noncategorical teacher preparation programs in special education are presented in Table 12. As evidenced by the data, the greatest differences in the types of formal assessments were in the use of postassessments by the CBTE programs and the use of the final examination by the NCBTE programs.

How CBTE and NCBTE Programs, Categorical and Noncategorical, Are Evaluated as Reported by Department Chairpersons

Program Components. The participants in this study were asked to evaluate their programs in terms of the (a) strongest program component,

Table 10

Reported Location of Instructional Modules for Competency Based and Noncompetency Based, Categorical and Noncategorical Teacher Preparation Programs in Special Education

Location of Instructional Modules*	CBTE						NCBTE					
	Categorical		Noncategorical		Total		Categorical		Noncategorical		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Bookstore	49	24.3	28	25.9	77	24.8	27	20.3	22	24.2	49	21.9
Curriculum Laboratory	53	26.2	19	17.6	72	23.2	26	19.6	13	14.3	39	17.4
Individual Instructor's Office	44	21.8	26	24.1	70	22.6	39	29.3	25	27.5	64	28.6
Library	21	10.4	13	12.0	34	11.0	18	13.5	11	12.1	29	12.9
Media	35	17.3	22	20.4	57	18.4	23	17.3	20	21.9	43	19.2
Total	202	100.0	108	100.0	310	100.0	133	100.0	91	100.0	224	100.0

*All responses were tabulated.

Table 11

Individual Reported as Being Responsible for Determining When the Specified Criterion for Performance Has Been Met for Competency Based and Noncompetency Based Categorical and Noncategorical, Teacher Preparation Programs in Special Education

Individual Responsible for Determining Criterion	CBTE						NCBTE					
	Categorical		Noncategorical		Total		Categorical		Noncategorical		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Staff	32	43.8	21	45.6	53	44.5	2	4.4	1	3.1	3	3.8
Staff and Student	16	21.9	5	10.9	21	17.7	0	0	2	6.3	2	2.6
Student	2	2.7	0	0	2	1.7	0	0	0	0	0	0
Faculty Team	4	5.5	0	10.9	9	7.5	6	13.0	2	6.3	8	10.3
Faculty Team and Student	14	19.2	3	6.5	17	14.3	2	4.4	1	3.1	3	3.8
Individual Instructor	5	6.9	12	26.1	17	14.3	36	78.2	26	81.2	62	79.5
Total	73	100.0	46	100.0	119	100.0	46	100.0	32	100.0	78	100.0

Table 12

Reported Types of Formal Assessment Utilized in Competency Based and Noncompetency Based, Categorical and Noncategorical, Teacher Preparation Programs in Special Education

Types of Formal Assessment*	CBTE						NCBTE					
	Categorical		Noncategorical		Total		Categorical		Noncategorical		Total	
	No	%	No	%	No.	%	No.	%	No.	%	No.	%
Preassessment	39	17.7	16	23.9	55	19.2	21	17.4	10	15.9	31	16.8
Unit Assessment	45	20.5	10	14.9	55	19.2	29	24.0	18	28.6	47	25.5
Post Assessment	66	30.0	28	41.8	94	32.8	27	22.3	2	3.2	29	15.8
Mid-Term Examination	22	10.0	1	1.5	23	8.0	9	7.4	13	20.6	22	12.0
Final Examination	48	21.8	12	17.9	60	20.8	35	28.9	20	31.7	55	29.9
Total	220	100.0	67	100.0	287	100.0	121	100.0	63	100.0	184	100.0

*All responses were tabulated.

(b) program components which could be eliminated, and (c) components which could be added to enhance the existing program. The responses are presented in Table 13. A total of 13 components, which the respondents considered to be the strongest, were listed. Under the heading of Components to be Eliminated, department chairpersons were generally interested in the elimination of repetitive courses and general education requirements; whereas, the respondents were interested in adding additional field-related experiences, learning packets, and additional assessment devices.

Description of Programs. When asked to list one word which best described the teacher preparation program, 20 different descriptors were reported by department chairpersons. These descriptors, which range from embryonic to excellent, are listed in Table 14.

Future Programs. The respondents who administered CBTE programs were asked to list any additional competency based teacher education programs which their staff had planned for the future. The respondents who administered NCBTE programs were asked to list any additional special education training programs which their staffs had planned for the future. The responses to these two questions are presented in Table 15.

Table 13

Reported Evaluation of Program Components for Competency Based and Noncompetency Based, Categorical and Noncategorical, Teacher Preparation Programs in Special Education as Reported by Department Chairpersons

Program Components*	CBTE						NCBTE					
	Categorical		Noncategorical		Total		Categorical		Noncategorical		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Strongest Components												
Modules	21	9.8	0	0	21	5.9	11	9.4	0	0	11	4.8
Instructional Learning Packets	38	17.1	16	11.5	54	15.2	15	12.8	7	6.3	22	9.6
Dual Certification	0	0	0	0	0	0	6	5.1	0	0	6	2.6
Cross Categorical	0	0	14	10.1	14	4.0	0	0	22	19.9	22	9.6
Field Experience	19	8.8	6	4.3	25	7.1	13	11.1	14	12.6	27	11.8
Time Variables	13	6.1	7	5.0	20	5.6	4	3.4	0	0	4	1.8
Evaluation	25	11.6	25	18.0	50	14.1	19	16.2	6	5.4	25	11.0
Individual Study	36	16.7	32	23.0	68	19.3	9	7.7	19	17.1	28	12.3
Preassessment	22	10.2	14	10.1	36	10.2	7	6.0	5	4.5	12	5.3
Practicum	31	14.4	20	14.4	51	14.4	21	18.0	16	14.4	37	16.2
Faculty	6	2.8	0	0	6	1.7	12	10.3	8	7.2	20	8.8
Clinical Training	4	1.9	5	3.6	9	2.5	0	0	12	10.8	12	5.3
Laboratory School	0	0	0	0	0	0	0	0	2	1.8	2	0.9
Total	215	100.0	139	100.0	354	100.0	117	100.0	111	100.0	228	100.0
Components to be Eliminated												
Repetitive Courses	25	31.3	14	20.3	39	26.2	21	31.8	28	53.9	49	41.5
General Education Prerequisites	19	23.7	45	65.2	64	43.0	14	21.2	18	34.6	32	27.1
None	36	45.0	10	14.5	46	30.8	31	47.0	6	11.5	37	31.4
Total	80	100.0	69	100.0	149	100.0	66	100.0	52	100.0	118	100.0
Components to be Added												
Prestudent Teaching Practicum	28	25.0	20	26.3	48	25.5	11	15.5	26	36.6	37	26.1
Learning Packets	37	33.0	14	18.4	51	27.2	24	33.8	15	21.1	39	27.5
Practicum	21	18.8	24	31.6	45	23.9	23	32.4	21	29.6	44	31.0
Additional Assessment	23	20.5	15	19.7	38	20.2	5	7.0	0	0	5	3.5
None	3	2.7	3	4.0	6	3.2	8	11.3	9	12.7	17	11.9
Total	112	100.0	76	100.0	188	100.0	71	100.0	71	100.0	142	100.0

*All responses were tabulated.

Table 14

Reported Descriptors for Competency Based and Noncompetency Based and Categorical and Noncategorical Teacher Preparation Programs in Special Education as Reported by Department Chairpersons

Reported Descriptors*	CBTE						NCBTE					
	Categorical		Noncategorical		Total		Categorical		Noncategorical		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Adequate	3	4.1	0	0	3	2.5	0	0	2	6.3	2	2.5
Beginning	5	6.8	0	0	5	4.2	0	0	0	0	0	0
Beneficial	1	1.4	0	0	1	0.8	0	0	0	0	0	0
Challenging	4	5.5	0	0	4	3.4	0	0	0	0	0	0
Developing	14	19.2	5	10.9	19	16.0	5	10.9	2	6.3	7	8.7
Embryonic	2	2.7	1	2.2	3	2.5	0	0	2	6.3	2	2.5
Emerging	4	5.5	8	17.3	12	10.1	2	4.0	2	6.3	4	5.0
Evolving	5	6.8	7	15.1	12	10.1	0	0	6	18.7	6	7.4
Excellent	0	0	4	8.7	4	3.4	2	4.0	2	6.3	4	5.0
Functional	5	6.8	4	8.7	9	7.6	0	0	2	6.3	4	5.0
General	1	1.4	0	0	1	0.8	8	17.4	2	6.3	10	12.5
Good	4	5.5	4	8.7	8	6.7	6	13.0	3	9.3	9	11.3
Growing	6	8.2	2	4.4	8	6.7	0	0	0	0	0	0
Incomplete	8	11.0	0	0	8	6.7	3	6.5	0	0	3	3.8
Intense	0	0	0	0	0	0	0	0	1	3.0	1	1.3
Limited	1	1.4	0	0	1	0.8	3	6.5	0	0	3	3.8
Practical	3	4.1	1	2.2	4	3.4	6	13.0	2	6.3	8	10.0
Precise	2	2.7	2	4.4	4	3.4	0	0	1	3.0	1	1.3
Relevant	1	1.4	4	8.7	5	4.2	0	0	0	0	0	0
Successful	4	5.5	3	6.5	7	5.9	7	15.2	3	9.3	10	12.5
No Response	0	0	1	2.0	1	0.8	4	8.7	2	6.3	6	7.4
Total	73	100.0	46	100.0	119	100.0	46	100.0	32	100.0	80	100.0

*All responses were tabulated.

Table 15

Future Programs Planned for CBTE and NCBTE as Reported by Department Chairpersons

Programs Planned for the Future*	CBTE		NCBTE	
	No.	%	No.	%
Learning Disabilities	6	11.1	0	0
Secondary Special Education (Graduate)	8	14.8	0	0
Early Childhood for Special Education	13	24.1	6	30.0
Deaf and Blind	5	9.3	3	15.0
Deaf	12	22.2	5	25.0
Special Education for Geriatrics	4	7.4	6	30.0
Physical Education for Special Education (Graduate)	1	1.8	0	0
Physical Education for Special Education (Undergraduate)	5	9.3	0	0

*All responses were tabulated.

Summary

Data have been presented which were obtained from a mail questionnaire to N197 department chairpersons of special education teacher preparation programs in colleges/universities throughout the United States of America and Puerto Rico. The data have been arranged around seven major areas of concern regarding teacher preparation programs, whether CBTE or NCBTE, categorical or noncategorical: (a) types of programs offered; (b) distribution of faculty and students, and types

of degrees awarded; (c) initiation dates of program offerings by degrees awarded; (d) reasons for embarking on a program; (e) essential components of programs; (f) administrative aspects of program implementation; and (g) evaluation of the existing programs.

SUMMARY AND RECOMMENDATIONS

Summary

This study was undertaken to examine certain program components of (a) federally funded special education teacher training programs that were designated by department chairpersons as being competency based teacher education (CBTE) programs, and (b) federally funded special education teacher training programs that were designated by department chairpersons as being noncompetency based teacher education (NCBTE) programs.

An analysis of the responses made by department chairpersons indicated that:

1. More than one-half (N119; 60.4%) of the department chairpersons indicated that they administered categorical CBTE or categorical NCBTE programs. There were more CBTE categorical programs reported (N73; 61.3%) than categorical NCBTE programs (N46; 58.9%) (Table 1).
2. The categorical CBTE and NCBTE programs accounted for the largest student enrollment and these were approximately evenly distributed (Table 1).

3. The categorical CBTE and NCBTE programs accounted for the largest number of faculty; however, the number of faculty reported for CBTE programs far exceeded the number reported for NCBTE programs (Table 1).
4. The majority of the students in both the CBTE and the NCBTE programs are in the bachelor's level programs. There has been a decided increase in the number of degree offerings for the doctoral degree within the past five years (Tables 2, 3, and 4).
5. More students are enrolled in the area of mental retardation than any other area of specialization (Tables 2 and 3).
6. The faculty-student ratio for NCBTE programs in the areas of learning disabilities and mental retardation are 55 to 1 and 56 to 1 as compared to 24 to 1 and 21 to 1, respectively, for CBTE programs (Table 5).
7. Competency based teacher education programs are relatively new. The earliest initiation date for CBTE programs was 1970 (Table 6).
8. The majority of CBTE programs were begun as a result of either federal funds or legislative mandates (Table 7).
9. The essential program components as listed by department chairpersons are similar for both CBTE and NCBTE programs (Table 8).
10. More than one-half of all programs had their goals or objectives or competencies grouped under major generic headings (Table 9).

11. Two-thirds of all programs had developed printed learning modules, whether CBTE or NCBTE. The frequency of having published modules was greater for the CBTE programs than for the NCBTE programs (Table 9).
12. The majority of CBTE programs had developed printed non-published instructional packages, whereas, the majority of NCBTE programs had not developed such materials (Table 9).
13. All programs were reported to have established time frames in which entrance to or completion of a module was limited (Table 9).
14. The majority of the programs had not developed computerized instructional packages; however, a larger number of NCBTE programs reported the use of computerized instruction than did CBTE programs (Table 9).
15. Over one-half of the programs were reported to utilize video-taped lessons for demonstration purposes; however, a greater number of CBTE programs utilized video tapes than did NCBTE programs (Table 9).
16. All programs were reported to use tapes, records, films, filmstrips, or cassettes with students (Table 9).
17. The use of proctors or managers to administer, score, or readminister unit and/or module assessments is reportedly widespread; however, the greatest frequency of use was reported by CBTE programs (Table 9).
18. There was reported by both CBTE and NCBTE programs a widespread opportunity for students to recycle through a unit or module (Table 9).

19. The availability of instructional packets were reportedly in easy access for students in both CBTE and NCBTE programs (Table 10).

20. In CBTE programs, usually two or more persons were involved in determining when the criterion level for performance had been met; whereas, in NCBTE programs that decision was primarily left to the individual instructor (Table 11).

21. The greatest differences in the types of formal assessments were in the use of postassessments by the CBTE programs and the use of the final examination by the NCBTE programs (Table 12).

22. The most frequently mentioned strongest program components for the CBTE programs were (a) learning packets, (b) individual study, and (c) practicum. The least mentioned was faculty. For NCBTE programs, practicum was listed as the strongest program component (Table 13).

23. General education courses and repetitive courses were listed as components that could easily be eliminated (Table 13).

24. Learning packets and practicum were the two most frequently mentioned program components that should be added (Table 13).

25. Programs were described by 20 different descriptors, ranging from embryonic to excellent, with the most frequently mentioned descriptors being developing, emerging or evolving (Table 14).

26. The most frequently mentioned programs planned for the future by CBTE programs were early childhood and deaf;

whereas, for NCBTE, the most frequently mentioned programs planned for the future were geriatrics, early childhood, and deaf (Table 15).

Recommendations

In view of the findings of the present investigation, the following recommendations are presented:

1. Additional research needs to be conducted to further delineate the essential components relevant to CBTE.
2. Further research needs to be conducted to more accurately distinguish between the essential components of CBTE programs and NCBTE programs.
3. Further research needs to be conducted to determine which CBTE program components contribute significantly to the desired behavioral changes in college/university students.
4. Further research needs to be conducted to determine the cost-effectiveness of training college/university students utilizing both the CBTE and the NCBTE program models.

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