ABSTRACT
                Current trends in teacher education are characterized
by programs designed to emphasize approaches to learning which are
competency based, field centered, and individualized. Presently few
colleges and universitites have progressed very far in the
development and implementation of these innovative teacher education
programs. This study presents some guidelines for program innovation
systems based on the experiences of those currently involved in
program change. To identify institutions currently involved with
innovative programs a search was conducted through recent
publications. Twenty-three colleges and universities were identified
as being involved, to some extent, in programs related to
competency-based teacher education. A questionnaire was constructed,
containing 39 items, to yield information concerning program
implementation. Personal visits and interviews were made by the
principal investigator. Questionnaire responses provided information
in four areas of planning and program development: (1) personnel; (2)
program; (3) evaluation; and (4) major problems. In addition to this
information, interviews with the administrative and faculty personnel
and with officials of the Texas Education Agency identified several
areas of general agreement concerning competency-based teacher
education. These are summarized in terms of organizational structure,
change strategy, and problems commonly encountered. The paper
includes the research instrument and selected references. (DMT)

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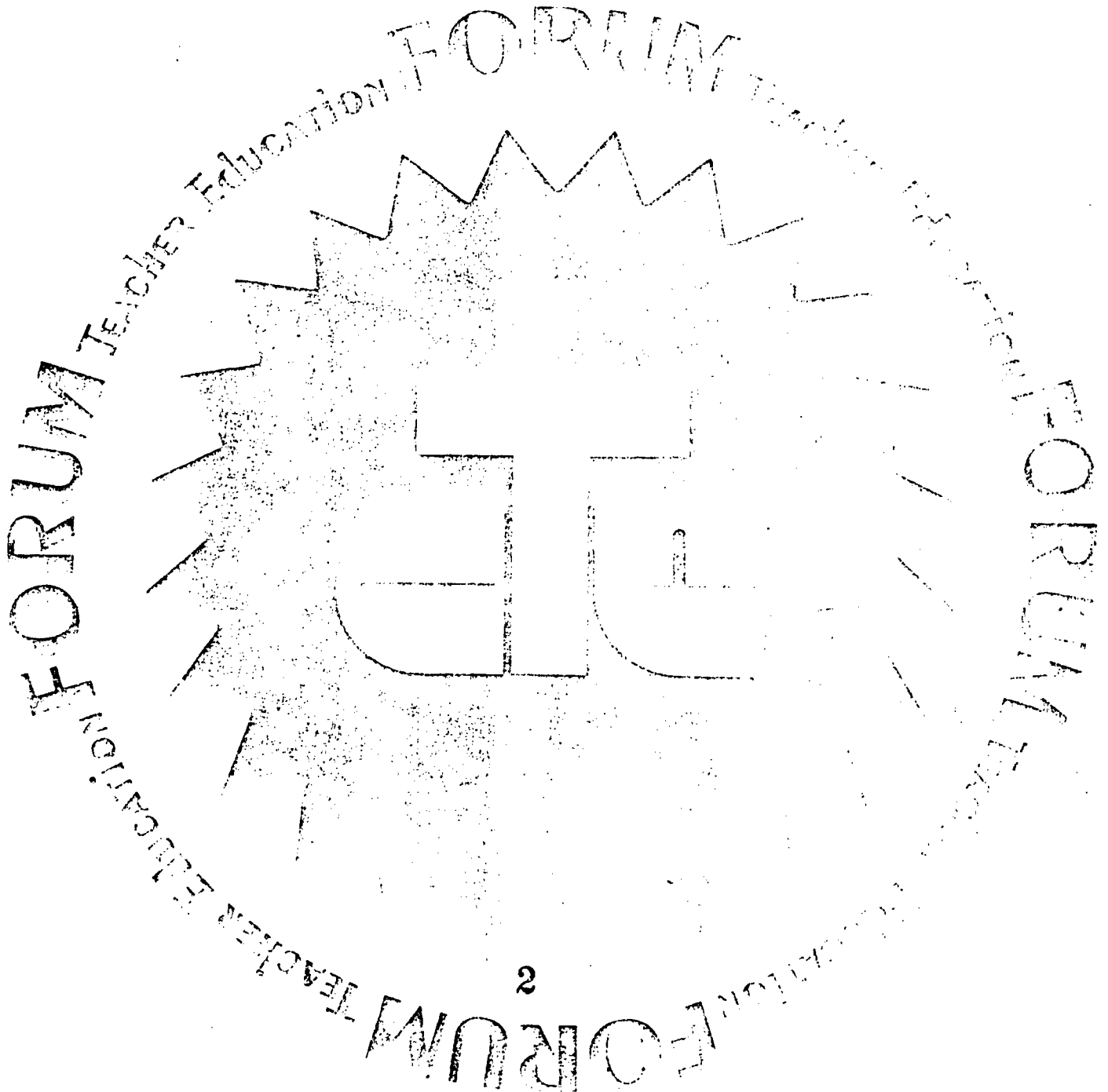
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WILLIAM E. BLANTON, editor
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SYSTEMS FOR PROGRAM CHANGE

IN TEACHER EDUCATION

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INTRODUCTION

Current trends in teacher education are characterized by programs designed to emphasize approaches to learning which are competency-based, field-centered, and individualized. These trends are partly due to the res lt of efforts in the profession and partly due to state and national legislative or administrative pressures. The movement offers considerable pror   for the improvement of teacher education, and ultimately the im-
p: -f   -'-mentary and secondary schools, but those who
a\ .   instituting these programs universally
e   nizing and in systems development for
                              es ard universities have progressed
                                  -entatior of innovative teacher edu-
                                  -sed, field-centered, and individu-
                                  developed their own systems of
\-r.g   times by trial and error.

ʹF THE STUDY

The purpose of this study was to present some guidelines for program innovation systems based on the experiences of those currently involved in program change. The results of this information could provide valuable assistance to colleges and universities concerned with promoting needed change in teacher education.

PROCEDURES

To identify institutions currently involved with innovative programs in teacher preparation, a search was conducted through recent publications. This search provided sources of contact for information concerning CBTE programs. Twenty-three colleges and universities were identified as being involved, to some extent, in programs related to competency-based teacher education.

A questionnaire was constructed to yield information concerning program implementation and then sent to the dean of the college of education or the program director of the target institutions. Thirty-nine items, representing initial considerations for program change, were selected, organized, and included in the instrument. A continuum type rating scale was

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used for the identification of levels of importance attributed to various areas of program development. Space was provided following each questionnaire item for any additional information considered relevant by those being surveyed. Responses were received from twenty-one of the twenty-three institutions surveyed.

Personal visits were made by the principal investigator to the campuses of The University of Georgia and The University of Toledo for the purpose of interviewing leadership personnel and other faculty members in the College of Education of each university concerning the development and operation of their CBTE programs. From information available, it appeared that these two institutions were most likely to provide the best information for the purpose of this study.

Personal interviews were also held by the principal investigator with faculty leaders from teacher education programs in schools comprising the Southern Consortium of Teacher Education Colleges while they were meeting in Atlanta, Georgia to conduct business of the consortium. This consortium was established and now operates to facilitate CBTE program development in the member colleges and universities, which are for the most part small institutions with predominantly black student enrollments.

Additional interviews were conducted by the principal investigator with leadership personnel of the Texas Education Agency, which has been actively involved in national and state efforts to develop and establish CBTE programs.

FINDINGS

Questionnaire responses from representatives of colleges and universities involved with competency-based teacher education assisted in providing information in four areas of planning and program development. These areas were: (1) personnel, (2) program, (3) evaluation, and (4) major problems.

Personnel

The responses from participants indicated that department or area chairmen were most instrumental in initiating the change to CBTE programs, and a majority (55 per cent) of the participants reported that the faculty was asked to contribute very much in planning for the change. Only 5 per cent indicated that the faculty was not asked to contribute to the change to the new program.

In most colleges and universities the faculties were somewhat familiar with the concepts and principles of competency-based teacher education and in most cases were enthusiastic concerning the development of such a program. Only one institution reported an unenthusiastic faculty concerning the proposed program change.

Responses indicated that 85 per cent of the participants made some provision for helping the faculty adjust to the new program. This included in-service meetings, seminars, conferences, etc., and a majority of those surveyed indicated that even more emphasis on faculty preparation would have produced a smoother transition to CBTE.

The participants were not in agreement concerning whether any additional support personnel were necessary for the proposed CBTE program. Fifty-five per cent indicated that the acquisition of additional personnel such as audio-visual assistants, learning resource directors, etc., was important, while 45 per cent stated that the addition of new personnel was not necessary.

To promote greater commitment on the part of the faculty, some type of incentive was provided teachers by 42 per cent of the schools surveyed. These incentives included such things as (1) lighter loads during program development, (2) summer employment, (3) department chairman appointments, (4) release from university-wide committees, (5) travel and professional meeting expenses, (6) off-campus retreats, (7) research and publication assistance, (8) small bonuses for meeting deadlines in module development, (9) load credit, and (10) released time for program development.

Program

Most schools which were implementing change to competency-based teacher education approached the change on a rather limited basis. Over one-half of those reporting indicated that only very little of the existing program was to be changed at first.

In developing the new program, 61 per cent of the schools requested input from other department administrators and faculty on campus, and 80 per cent asked for assistance from local public school personnel in planning the CBTE program. Students were consulted in the development of the program by 85 per cent of the schools.

Student work on an individual basis was planned for all of the new programs with 40 per cent of the participants stating that most of the work was to be in this fashion.

Considerable team teaching was planned for use in the new program for group instruction by almost all schools reporting, and learning modules were reported by 85 per cent of the respondents as predominant features in competency development.

Development of learning modules was a joint effort of individuals and groups in those colleges and universities involved in CBTE. Committees consisting of faculty members, department chairmen, public school personnel, professional consultants, and students contributed to the development of the modules. The participants indicated that very little emphasis was devoted to establishing predetermined time allotments for completion of each module, nor was requiring the same amount of time for completion of each module considered to be important. Most CBTE programs were designed to operate at the individual student's pace, with module completion ranging from less than two weeks to a full semester.

Although entrance requirements were not considered important by most of the participants, over 90 per cent of the responses indicated that exit requirements were of prime importance to the success of the program.

Very little provision was made for either the assignment of students to an advisor or for transfer students entering the program. This was identified as an area of program development needing considerable additional attention.

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Evaluation

Providing for a system of evaluation was an important factor in almost every instance of program development. Of the schools reporting, 90 per cent indicated this area as a very important consideration for program development. Systems analysis procedures, student feed-back, faculty members and public school personnel were all involved in this on-going evaluation. Periodic module evaluation by the faculty was also considered to be of great importance.

Grading systems for CBTE programs were quite varied according to responses from the participants. Letter grades, pass/fail, completed, credit/non-credit, satisfactory, and combinations of all of these are used by the various institutions in reporting student progress. Most schools reported some emphasis, during program development, on faculty evaluation.

Major Problems

Almost all schools reported a common problem--time. This either involved planning time for program implementation or insufficient time to accomplish all that was necessary within the semester, quarter, etc., which resulted in an over-worked faculty.

One problem that was considered by many as a serious handicap was faculty members that were either disinterested in CBTE or were not knowledgeable of the principles and rationale for such a program.

New equipment was not considered as essential for implementing a competency-based program, but developing adequate learning materials was considered crucial to the successful operation of the program.

Other problems listed by participants were providing direction to students, developing performance objectives, lack of man-power, and keeping student work within reasonable limits.

One-half of the schools responding reported that the planning time between initial consideration and the implementation of the competency-based teacher education program was from one to two years. One-fourth of the schools indicated that less than one year was allowed for development, and the remaining one-fourth stated that more than two years was provided for planning.

Summary of Responses

The percentages of responses to individual items on the questionnaire are presented in the following table.

TABLE 1

PERCENTAGES OF RESPONSES TO INDIVIDUAL ITEMS
ON THE QUESTIONNAIRE

1. Who was responsible for initiating the proposed change to CBTE?

23.8	33.3	9.5	23.8	9.5
Dean	Department or Area Chairman	Faculty	Individual	Other

2. How much was the faculty asked to contribute in planning for the change to CBTE?

55.0	25.0	10.0	5.0	5.0
Very Much	Considerable	Some	Very Little	None

3. How many of the faculty members were familiar with the concepts and principles of CBTE when it was first introduced?

23.8	14.2	33.3	28.5	0
Almost All	Most	Some	Very Few	None

4. What was the initial faculty response to the introduction of a CBTE program?

15	20	30	30	5
Very enthusiastic	Quite enthusiastic	Somewhat enthusiastic	Wait and see attitude	Unenthusiastic

5. In planning for the change to CBTE, how much provision was made for helping the faculty adjust to the new program through in-service meetings, conferences, seminars, etc.?

25	40	20	5	10
Very Much	Considerable	Some	Very Little	None

6. Would more emphasis on faculty preparation have produced a smoother transition to CBTE?

30	20	25	10	15
Yes	Probably	Maybe	Probably Not	No

7. How much provision was made in the CBTE program for team teaching?

30	35	30	5	0
Very Much	Considerable	Some	Very Little	None

8. In planning for change to CBTE, how important was the acquisition of additional personnel such as audio/visual assistants, learning resource directors, etc.?

15	35	5	25	20
Very Important	Quite Important	Somewhat Important	Not Very Important	Unimportant

9. In planning a CBTE program, how much of the existing program was to be immediately changed?

30	15	10	45	
All	Most	Part	Very Little	

10. In planning for a CBTE program how much student work was to be on an individual basis?

0	40	60	0	0
All	Most	Some	Very Little	None

11. To what extent did you plan to use learning modules?

25	35	30	5	5
Completely	Very Much	Some	Not Very Much	Very Little

12. Who was responsible for the development of the individual learning modules?

0	10	35	55	0
Department or Area Chairman	Faculty Committee	Individual Faculty	Combination of 2 or more	Other

13. How much importance was placed on entrance requirements in planning your CBTE program?

19	9.5	14.2	33.3	23.8
Very Important	Quite Important	Somewhat Important	Not Very Important	Unimportant

14. How much importance was placed on exit requirements in planning your CBTE program?

61.9	28.5	4.7	0	4.7
Very Important	Quite Important	Somewhat Important	Not Very Important	Unimportant

15. In planning the CBTE program, how much emphasis was placed on pre-determined time allotments for the completion of modules?

0	4.7	33.3	47.6	14.2
Very Much	Much	Some	Very Little	None

16. To what extent was the CBTE program to operate at the individual student's pace?

4.7	28.5	38	14.2	14.2
Completely	Very Much	Considerable	Mostly	Not Too Much

17. How important was it to develop modules that would require approximately the same amount of time for completion?

?	10	10	55	25
...y Important	Quite Important	Somewhat Important	Not Very Important	Unimportant

TABLE 1 (Cont'd)

18. How much importance was placed on periodic module evaluation?

31.5	47.3	10.5	10.5	0
Very Important	Quite Important	Somewhat Important	Not Very Important	Unimportant

19. Who was to be responsible for the evaluation of the learning modules?

0	10.5	42.1	42.1	5.2
Department or Area Chairman	Faculty Committee	Individual Faculty	Combination of 2 or more	Other

20. How much were students consulted in the development of the CBTE program?

9.5	33.3	42.8	14.2	0
Very Much	Much	Some	Very Little	None

21. In the initial planning, how much emphasis was to be placed on the evaluation of professors?

9.5	19	38	23.8	9.5
Very Much	Much	Some	Very Little	None

22. How important was the development of a system analysis procedure for on-going assessment of the program?

25	45	20	5	5
Very Important	Quite Important	Somewhat Important	Not Very Important	Unimportant

23. How much importance was placed on feedback from students as a possible means of improving the program?

61.9	38.1	0	0	0
Very Much	Much	Some	Very Little	None

24. How much input was requested from other department administrators and/or faculty on campus in planning the CBTE program?

4.7	14.2	42.8	28.5	9.5
Very Much	Much	Some	Very Little	None

25. To what extent were local public school personnel asked for input in planning the CBTE program?

40	30	10	20	0
Very Much	Much	Some	Very Little	None

26. How much new equipment was considered essential for change to CBTE?

5	19	38	23.8	14.2
Very Much	Considerable	Some	Very Little	None

27. Was program certification assured before implementation of the CBTE program?

70	10	20
Yes	No	Somewhat

INTERVIEW RESPONSES

From the interviews with administrative and faculty personnel and with officials of the Texas Education Agency several areas of general agreement concerning CBTE development and implementation seemed apparent. These will be summarized in terms of organizational structure, change strategy, and problems commonly encountered.

Organizational Structure

The organizational structure best suited to the individual institution and program involved must be developed by the personnel of the institution, but the following generalizations typically apply.

1. There must be strong and participatory leadership from the dean or comparable official and his immediate administrative team.

2. The team concept of faculty organization is usually appropriate, although this may take the form of differentiated staffing more than the pure team approach.

3. An overall policy group develops policies and strategies for development and implementation of programs. This should include appropriate administrative, faculty, student, and public school representation.

4. Community discussion and orientation activities are important.

5. Each team should elect a team leader, who should be a member of the overall policy committee.

6. A coordinator is needed to work with team leaders, public school personnel, and others involved in the program.

Change Strategy

The change strategy adopted for a particular situation must be adapted to fit that situation, but it must involve maximum general faculty input and participation with adequate coordination and encouragement from status leaders. Elements of an effective change strategy will usually include the following, not necessarily in the order stated.

1. Basic objectives of the program must be developed, including assumptions upon which they are based.

2. A reasonably complete compilation of more specific objectives must be agreed upon to form the basis of faculty team efforts to develop modules, field experiences, and other components of the program.

3. Organization by course or course combinations usually works best in the typical college or university setting.

4. Time for faculty members to work on program development must
be provided. Faculty retreats for planning and decision-making
are usually very productive.

5. Each team should develop its own strategies to meet established
objectives.

6. A reward system for faculty participation in program development
is needed. Encouraging and assisting with publications may be
an important part of such a system.

7. A total program may be changed piece-by-piece, or a pilot
approach may be utilized to change the whole program at once
with a small group. Both strategies seem to have been used
equally effectively.

8. Start with as simple a system as possible and evolve later
as seems desirable.

9. Provide faculty members with the opportunity to see more
advanced programs in operation.

10. Most institutions follow a change sequence moving from a
traditional program to one which involves considerable
field-based experience to a CBTE type program.

Typical Problems

Each situation has its own unique problems in attempting to
change to a CBTE program, but the following difficulties seem to occur
rather frequently.

1. Faculty unwillingness to listen to suggestions for change.
This is usually due to lack of information or a feeling that
they have not been adequately involved in the whole process
(a mandate approach).

2. Need for an appropriate reward system.

3. Need for a non-threatening situation.

4. Coordination and liaison of the various aspects of the total
program.

5. Communication among the participants in the program.

6. Evaluation of student competencies. This must be done
subjectively to a considerable extent.

7. Identification of entrance and exit requirements.

8. Too much field-based experience may be incorporated in the
program, causing loss of an adequate knowledge base for
development of competencies.

SUMMARY OF CONCLUSIONS

Conclusions reached as a result of this study are necessarily tentative due to the limited nature of the study, but it seems that several statements may be made with considerable confidence. We will group these conclusions as they seem to primarily relate to the areas of personnel, program, evaluation, organizational structure, change strategy, and typical problems encountered.

Personnel

Faculty involvement to as great an extent as possible is needed from the beginning in program planning and development.

Strong leadership from those in designated leadership positions is required.

Faculty must be given assistance in learning about competency-based education through various faculty development procedures.

Support personnel in addition to those normally available will usually be needed, although it may be possible to get along without them.

Incentives for faculty participation in the program development and operation should be a part of the reward system of the institution.

Program

It is usually best to begin on a very limited basis, normally by changing only a small part of the program at first.

Public school personnel, students, and faculty members of other departments on the campus should be asked to help in planning for program change.

A large part of the program should be on an individualized basis, through the use of modules and other appropriate procedures and techniques.

Team teaching is an important part of a program of this nature.

Module development should be done by committees and individual faculty members and should include education faculty and administration personnel, public school personnel, consultants, and students.

There is a danger that module development and utilization may absorb too much faculty time and comprise too much of the total program.

Exit requirements are very important, and also difficult to devise and administer. Entrance requirements are less important, but necessary.

Provision for transfer students is necessary and many times neglected.

Evaluation

An organized effort to continuously evaluate the program should involve all people concerned with the program and its development.

Periodic evaluation of modules and other teaching techniques and materials should be built into the program.

The grading system will have to be compatible with campus practices and may take any number of forms.

Evaluation of faculty should not be neglected.

Organizational Structure

A policy group should develop overall policies and strategies. This group should include representation from all groups involved in the program, key administrators, and team leaders.

Teams implement the policies and strategies developed by the policy group. A team leader should be designated for each team, either by appointment or election.

A coordinator works with team leaders, public school personnel, and others involved in the program.

Designated administrators assist as necessary to carry out policies and strategies.

Change Strategy

Begin by identifying basic assumptions and objectives, utilizing maximum participation of all those who may later be involved in development and implementation of the program.

From the basic assumptions and objectives, develop more specific objectives to form the basis for program development.

Each team should develop its own variety of implementation procedures, materials, etc.

Faculty time, encouragement, and incentives must be built into the change strategy.

Begin by changing a small part of the program, using as simple a system as possible at first, and moving from the traditional program to one involving field-based components, to a more fully operating CBTE concept. Work within the traditional course structure system so far as possible.

Common Problems

Most of the more serious problems are related to faculty attitudes, interest, and competence. Faculty development, necessary time allocations,

an appropriate reward system, a non-threatening situation, and strong, competent leadership are the more important requirements for overcoming these kinds of problems.

Coordination and communication problems also require specific preventive and remedial efforts.

A third common problem area involves the adequacy of learning materials and procedures. Outside sources may be helpful in this respect, but adaptations and local development efforts are essential.

Provision of adequate and appropriate field-based experiences forms the fourth major problem area. Again, suggestions for the local group may be available from outside sources, but local arrangements and procedures must be developed to meet particular needs and circumstances.

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