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## ABSTRACT

The focus of this paper is on innovative evaluation, evaluation methodologies, and the development of evaluative instruments. Innovative evaluation is discussed as related to comprehensive evaluation, general evaluation with special emphasis, problems in comprehensive and general evaluations, and five components of an assessment model (accessibility, flexibility, personalization, synthesis, and efficacy of resources). Four models that may be applied in the evaluation of innovative and nontraditional programs are discussed; these models are: Competency-Based Evaluation, Self-Evaluation, Systems Analytic Evaluation, and Fortune/Hutchinson Methodology of Educational Evaluation. The development of evaluative instruments is presented as to guidelines, and examples of instruments are given. An appendix provides a copy of a Faculty Acceptance of Innovation questionnaire, an Occupational Status of Former Occupational Students questionnaire, and two handscoring forms. A list of references is included. (DB)

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PHILOSOPHY AND METHODOLOGIES FOR THE EVALUATION  
OF INNOVATIVE AND NONTRADITIONAL PROGRAMS

By: Morley W. Shaw

Washington State University

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A report of the  
National Dissemination Project  
for Post-Secondary Education

June, 1974

Research & Planning Office  
Washington State Board for  
Community College Education  
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Seattle, Washington 98125

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## FOREWORD

This report was prepared for the National Dissemination Project to suggest ways in which community colleges might better serve the needs of minority and disadvantaged students through planning.

The National Dissemination Project is an outgrowth of earlier projects funded or sponsored by the Office of Economic Opportunity to develop comprehensive educational services for the disadvantaged, and to provide institutional support in program development. One of its major missions is to provide information and assistance to planners and educators at the community college level, by responding to their requests for specific data and reports.

This report is the result of a national poll conducted by the National Dissemination Project, which identified the topics on which most respondents indicated a need for further information. The response to our poll was sufficiently large to indicate that there are certain "key" concerns felt by community college persons across the U.S. Each of our reports addresses such a national concern; and, it is hoped, provides the kinds of information that will be of help to those requesting it.

We would like to extend our special thanks to Dr. Raymond E. Schultz, and the graduate division of Washington State University, for their assistance in preparing this series of National Dissemination Reports. The work put in by Dr. Schultz's "team" on all these topics represents a distinguished contribution to knowledge on community college concerns.

The National Dissemination Project will continue until August 31, 1974 to provide information and assistance to help individuals, colleges and systems better serve the needs of students, primarily those classified as "non-traditional" and "disadvantaged."

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## CONTENTS

SECTION	PAGE
INTRODUCTION . . . . .	1
Statement of the Problem . . . . .	1
INNOVATIVE EVALUATION . . . . .	3
Comprehensive Evaluation . . . . .	3
General Evaluation with Special Emphasis . . . . .	4
Problems in Comprehensive and General Evaluation . . . . .	4
Five Components of an Assessment Model . . . . .	5
Accessibility . . . . .	6
Flexibility . . . . .	6
Personalization . . . . .	6
Synthesis . . . . .	7
Efficacy of Resources . . . . .	7
METHODOLOGIES OF EVALUATION . . . . .	8
Competency-Based Evaluation Model . . . . .	8
Self-Evaluation Model . . . . .	11
Systems Analytic Model . . . . .	12
The Fortune/Hutchinson Methodology of Educational Evaluation . . . . .	16
THE DEVELOPMENT OF EVALUATIVE INSTRUMENTS . . . . .	18
Guidelines for Evaluative Instruments . . . . .	19
Examples of Instruments . . . . .	19
SELECTED REFERENCES . . . . .	22
APPENDIX . . . . .	24

## FIGURES

FIGURE	PAGE
1. COMPETENCY-BASED EVALUATION MODEL . . . . .	9
2. SELF-STUDY INFORMATION FLOW . . . . .	12
3. SYSTEMS ANALYTIC MODEL . . . . .	15
4. INSTRUMENTATION GUIDELINES . . . . .	20
5. QUESTIONNAIRE/FACULTY ACCEPTANCE OF INNOVATION . . . . .	25
6. QUESTIONNAIRE/OCCUPATIONAL AND EDUCATIONAL STATUS OF FORMER OCCUPATIONAL STUDENTS . . . . .	26
7. HANDSCORING FORM FOR QUESTIONS 1 AND 2 . . . . .	29
8. HANDSCORING FORM FOR QUESTIONS 5, 6, 7 . . . . .	30

## INTRODUCTION

Community college education is charged with many responsibilities in being responsive to individual educational needs. The responsibility to provide innovative education has not only been recognized but mandated by many agencies. The Washington State Legislature has stipulated that approximately one-half of one percent of the instructional budget funds provided for the community college system be used for innovative educational programs. The legislative bill stated that the funds "shall be used only to develop and implement new and innovative education programs in undergraduate education" and "shall not be substituted to fund any present programs...." The State Board for Community College Education has committed itself to the principle of innovative instructional and programming techniques and on June 21, 1972 organized the Innovative Education Program Committee. Both Innovative Education Committees for 1971-1973 and 1973-1975 have acted to carry out the intent of the state legislature and have responded to the State Board's statutory responsibility and commitment to new educational, training, and instructional programs and methods.

### Statement of the Problem.

It has been difficult to define innovation or what constitutes nontraditional programs with any degree of precision.

One definition of innovation has been given by the Innovative Education Committee as "any change in curricular practice which brings about greater efficiency or effectiveness, increased student retention, individualization of instruction or better organization of the curriculum." It has also been defined as the comprehensive utilization of all possible resources to insure the community college system's continued responsiveness to the citizens of the state. Rather than attempt to work within the broad parameters of such generalized descriptions of innovation this paper will briefly describe some current and some future innovative education programs.

The State Board for Community College Education approved five innovative educational projects which were to be implemented during the 1971-1973 biennium. (1) The Community Involvement Program was to provide college credit to increase student involvement in community activities. (2) The Instructional Techniques project would increase the use of new instruction techniques. (3) The Clearinghouse was designed to collect and disseminate information on innovative programs. (4) The Regional Student Placement program would establish six regional student placement offices. (5) The Student Attrition project was to decrease the attrition rate of low income and minority students.

The Innovative Education Committee recommended 13 projects to be funded for the 1973-1975 biennium ranging from \$7,500 for an advisory board to research the needs of offenders and to develop nontraditional learning options for correctional

institutions to \$500,000 to support institutional research in the areas of educational needs, performance, instructional effectiveness, and improvement.

The commitment to innovative and nontraditional educational programs is apparent, but, less obvious is the justification for such programs. Some type of purposeful evaluation is needed to justify the expenditure of approximately \$900,000 in the name of innovation. It would seem that to evaluate new and innovative programs it would be necessary to either develop new and innovative evaluation methods or to adapt more traditional approaches of evaluation to the new programs. The focus of this paper will be on (1) innovative evaluation, (2) methodologies of evaluation, and (3) the development of evaluative instruments.

### INNOVATIVE EVALUATION

Evaluation is the systematic process of judging the worth, desirability, effectiveness, or adequacy of something according to definite criteria and purposes. The judgment is based upon a careful comparison of observation data with criteria standards. Precise definitions of what is to be appraised, clearly stated purposes, specific standards for the criteria traits, accurate observations and measurements, and logical conclusions are the hallmarks of valid evaluation. (Harris, 1968)

\* \* \* \* \*

#### Comprehensive Evaluation.

The most common form of institutional review is the comprehensive evaluation. Every major aspect of the program, the supporting structure, and the resources and services are eval-

uated in relation to the self-defined objectives of the institution. This is done first by an exhaustive self-evaluation carried out by the institution, and then by an outside team representative of various elements of the established educational community. Every part of the educational program offered by the institution is examined in terms of the goals and objectives that the institution is attempting to meet. If another institution has similar programs or specialities a joint evaluation is often utilized to maximize the skills of the team members and to decrease the cost in terms of finances and time. This type of evaluation is often required by state or federal agencies.

#### General Evaluation with Special Emphasis.

A second type of review is a general evaluation with special emphasis on selected areas. This involves a broad review of the institution's objectives and programs. Selected areas--such as tutorial, counseling, GED, etc.,--are examined in depth within the institution's overall educational program. This is also done by self-evaluation initially, and, then by a visiting team which gives special attention to the selected areas.

#### Problems in Comprehensive and General Evaluations.

There are problems with both of these evaluation procedures in attempting to apply them without modification to innovative and nontraditional programs. First, because the programs are nontraditional the objectives stated are some-

times changed and altered during implementation. Therefore, the evaluation must be flexible enough to recognize when original objectives have not been met because of the altering process and that new objectives have been derived from the implementation process. A second problem involves the outside visitation team and its members. A great amount of care and consideration would need to go into the selection of team members as many of the people usually considered for such a team would not have the necessary skills or knowledge to effectively evaluate unusual programs. It would be necessary to include members from outside the established educational community who have the expertise in the specialty being evaluated. Thirdly, the comprehensive review may be too concerned with the institution's general goals and objectives and not focused specifically on those of the innovative programs. In addition, it is possible that the objectives of the innovative programs may be functioning separately from those of the traditional school program.

#### Five Components of an Assessment Model.

It is probably not possible to develop a single universal model of innovative evaluation that would be useful for all new and innovative programs. However, Curtis and Wartgow (1972) listed five components that they felt should be considered in developing an assessment model: Accessibility, Flexibility, Personalization, Synthesis, and Efficacy of Resources. These general areas should be considered and adapted in any

model that attempts to evaluate innovative and nontraditional programs.

Accessibility. Whether an innovative program is meeting the educational and training needs of those individuals for whom the program was designed or is merely providing an alternative education for the normal college population is a crucial factor. Therefore, an accurate evaluation must examine the extent to which the program is serving the special population for whom it was created.

Flexibility. The target population of innovative programs in general may not be able to meet the entrance requirements and admission procedures of the traditional community college. Some flexibility in allowing "less qualified" individuals into the program would be necessary. It would be essential for the institution not to recruit only those students who show the potential for high academic success. There also needs to be flexibility in allowing the individual's educational goals to be considered in designing the program. The program should be adaptable to the individual and not necessarily the individual to the program. One factor of an evaluation model for innovative programs should concern itself with the extent to which the program provides valid alternatives outside the general educational program

Personalization. The population for whom innovative programs are usually designed have occasionally had unpleasant experiences with the educational community. For that reason it would be important that the program be individually

satisfying, individual goals provided for, and an evident determination of the institution to meet those goals. Most prominent among areas that were identified by the Special Committee on Campus Tensions as "troubling students" in 1970 were the indifference and neglect which the students felt existed within the institutions. These feelings may be compounded in the students who would be expected to receive the most from innovative programs. Evidence must be found in an evaluation that indicated that the programs are providing opportunities for personalized education and training.

Synthesis. It would seem important that innovative programs provide a synthesis of education and training with an individual's life experiences in meeting personalized goals. Perhaps credit should be granted for learning that has occurred regardless of the source of that learning. If this indeed be the case then assessing the relevant knowledge and allowing the proper credit is a tremendously complex task. If innovative programs attempt to provide credit for pertinent knowledge and experience then an evaluation model should provide for a close examination of the procedures involved.

Efficacy of Resources. In accomplishing the goals and objectives set forth it would be important for the institution to effectively identify and utilize available resources. One solution in meeting the present financial crisis in higher education would be a more effective allocation and utilization of currently available resources. An essential component of an evaluation model would provide information on how well the

the innovative program is efficiently utilizing resources, reducing waste, and eliminating a duplication of effort.

Evaluation models that have been applied to traditional programs may be used with some adaptation to evaluate innovative programs. Nontraditional methodologies, instruments, and techniques need to be developed. This paper will present several methodologies of evaluation of recent origin that may be used with and possible without adaptation in assessing innovative and nontraditional programs.

#### METHODOLOGIES OF EVALUATION

Four models will be presented that may be applied in the evaluation of innovative and nontraditional programs. They are: (1) Competency-Based Evaluation model, (2) Self-Evaluation model, (3) Systems Analytic Evaluation model, and (4) the Fortune/Hutchinson Methodology of Educational Evaluation.

##### Competency-Based Evaluation Model (Young, 1972).

Once the expected outcome to be evaluated is identified it is important to determine whether the behavior is a process or product. If the behavior is a process it must be evaluated as it is being performed. However, if the behavior can be logically or empirically related to a product, it may be indirectly evaluated by evaluating the product.

If the behavior produces a product then evaluation of the behavior may occur at any time after the product is produced. Direct evaluation may take place simultaneously with the beh-

avior as it occurs or as an evaluation of a finished product. When direct evaluation is not possible then an indirect evaluation must be employed which evaluates a dependent product and then makes inferences to the actual behavior. Figure 1 illustrates the interaction between direct and indirect evaluation and the two types of behaviors to be evaluated (process and product). In each of the four categories an example is given which helps to illustrate the type of interaction involved.

FIGURE 1  
COMPETENCY-BASED EVALUATION MODEL

What is to be Evaluated?  Mode of Evaluation?	Doing (Process)	Done (Product)
Direct	A	B
Indirect	C	D

- (A) Paraprofessional counseling      (B) Writing program  
(C) Report on a case study            (D) Representation of a product

The nature of the response must be described before evaluation instruments can be appropriately designed. The two most common ways in which a student may show his competencies are verbal and written. However, in many innovative programs actual performance is often the objective that the student is expected to achieve. Therefore, evaluation instruments should be available that are capable of measuring competencies other than verbal or written. The evaluation must then agree with the mode of responding. For example, if the behavior is for the student to provide adequate information on the GED, the evaluation should not examine his ability to administer the test.

As a valid measuring instrument will only evaluate the response at the level it occurs it is important that the expected behavior be identified in terms of the appropriate cognitive level. An accurate evaluation of the student's ability to solve a social problem should not require that he reproduce or recognize elements of it, although these abilities may be necessary.

The psychomotor domain and affective area are given special consideration. Whereas cognitively oriented behaviors may be evaluated on an appropriate sample of possible responses, psychomotor behaviors are often evaluated in their entirety. Because affective behaviors are usually indirectly evaluated they are often considered process behaviors.

Conventional evaluation of students requires that they answer questions which are designed to test the extent of

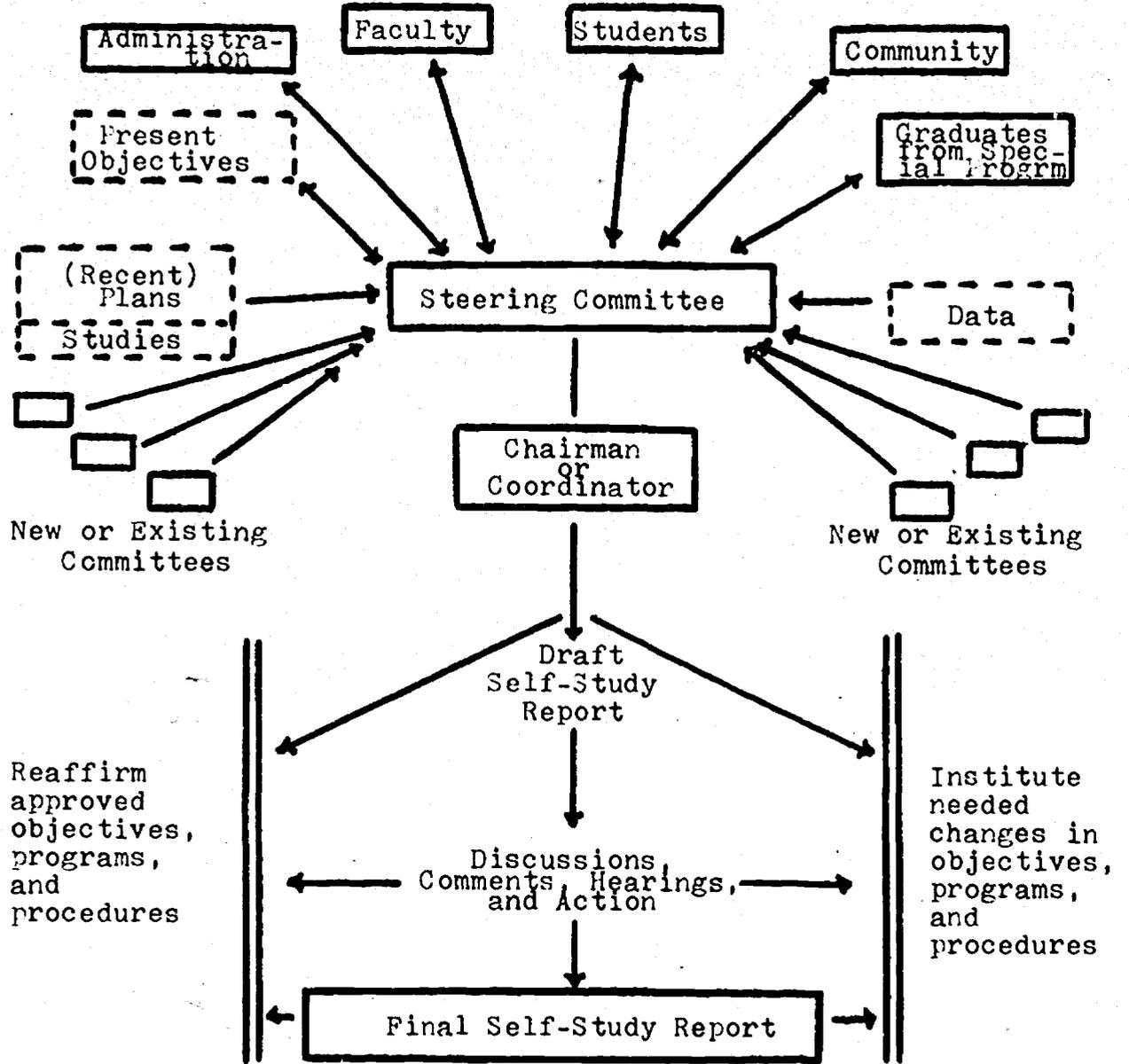
their knowledge about some subject. This model provides an evaluation where the student may demonstrate his ability to perform or produce a product in situations that are either as close as possible to real life situations or are actual life experiences.

### Self-Evaluation Model (Tadlock Associates, 1972).

The California system of Community Colleges developed a self-evaluation model for assessing the programs and services that were being offered to disadvantaged and handicapped students. With some adaptation this self-evaluation model could be used with other nontraditional programs.

Agencies planning to use this model should plan on taking the following steps: (1) designation of an evaluation coordinator from an appropriate agency to represent state interests; (2) the institution to be evaluate institutes a steering committee to look at itself; (3) peers, students, and community members give evaluation and advice via an Evaluation Report; (4) the institution responds to the Evaluation Report through direct communication with the evaluating agency; (5) the agency instituting the inquiry reacts with suggestions, advice, or recommendations on the basis of the information in the first three steps; and (6) the institution continues to consider and act on the results of its own self-study and the recommendations received. Figure 2 presents a Self-Study Information Flow chart.

FIGURE 2  
SELF-STUDY INFORMATION FLOW



The following are the kinds of questions the California Community Colleges felt should be directed to the administrators, teachers, counselors, directors, and students. They are essential to a self-evaluation of any program but seem to be particularly important for innovative and nontraditional programs.

1. What is the institution's operational definition of a (disadvantaged) student?
2. What are this institution's objectives with regard to (occupational education) for the (disadvantaged and the handicapped), and what obligations does it have?
3. Are the objectives appropriate? Now? Here? For its constituency?
4. Are the institution's (occupational education) programs for the (disadvantaged and the handicapped) consistent with its objectives?
5. Are the programs, activities, and services designed to achieve the objectives?
6. What indications are there that the special services permeate the fabric of the institution? That special services make a difference?
7. What evidence is there that these programs are not an appendage, not window dressing to the institution? Is there a sense that these programs are token?
8. Are the resources available to carry out the programs? Will they continue to be available?
9. Is there reason to believe the objectives are being achieved? What is the evidence?
10. What are the perceptions of the students, the staff, and the community regarding the president's attitude and support of the program(s)? What evidence is there of the validity of these perceptions?
11. What are the perceptions of the staff about the (disadvantaged)?
12. What are the levels of expectations of the staff regarding performance by (disadvantaged) students?

Systems Analytic Model (Wallace and Shanelson, 1970).

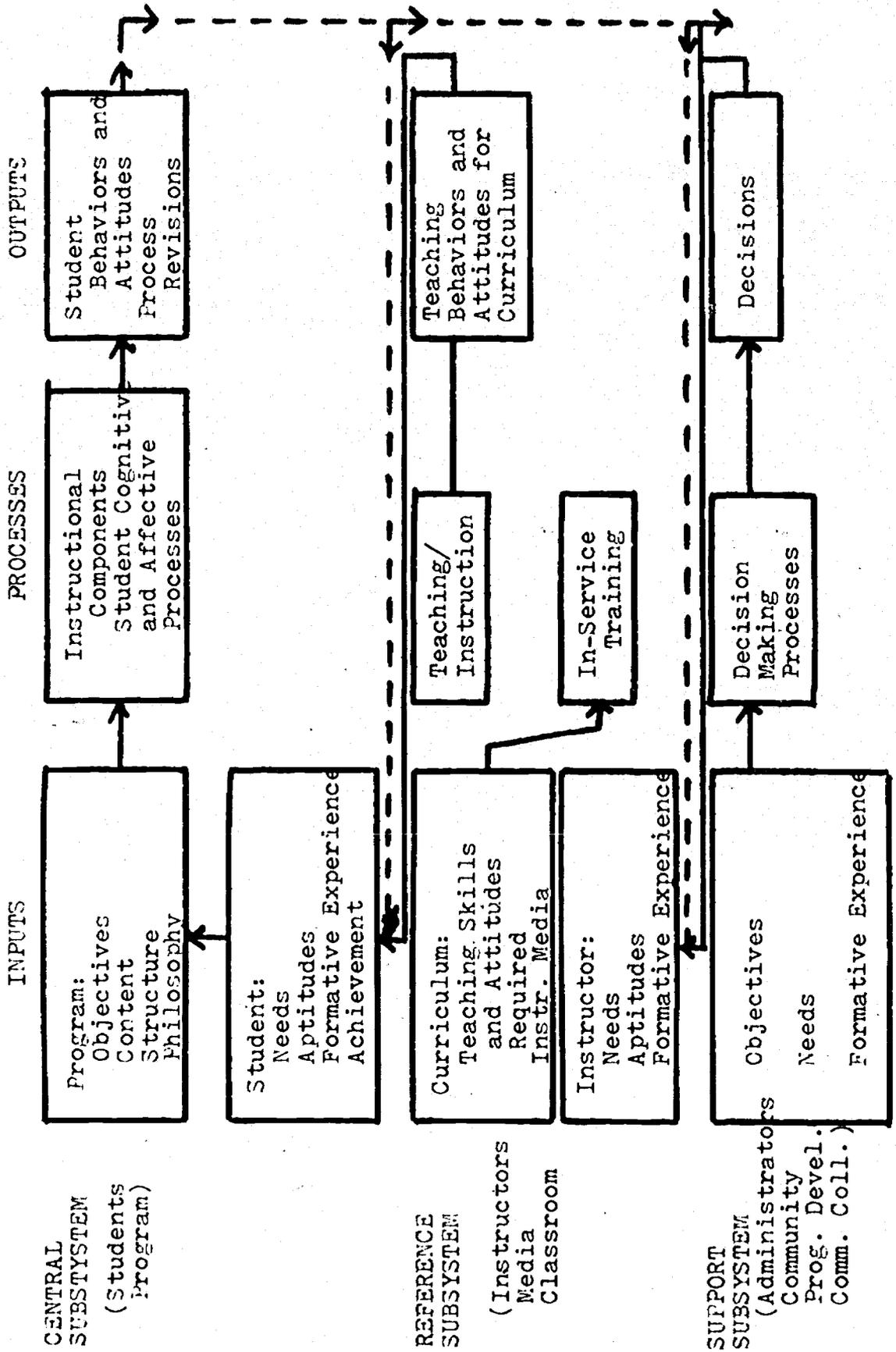
Three subsystems are identified in the Systems Analytic model: (1) Central Subsystem (students and program); (2) Reference Subsystem (instructors, media, and classroom); and

(3) Support Subsystem (administrators, community, program developers, and the community college). Figure 3 identifies the general type of information for the three subsystems along with the flow of data through the system. The figure also indicates that the prime concern of most evaluation studies are the student outcomes.

The background, aptitudes, and needs of the students in the central subsystem need to be considered in setting the objectives for the evaluation. The program's content, philosophy, and structure (attributes) also need to be specified. It is essential to use the appropriate student population for evaluating a program as the specific components and alternatives will then be reflected in the evaluation. The central subsystem's output is the student's behaviors and attitudes against which the objectives of the program may be evaluated. Based on this evaluation, the central subsystem receives results in terms of revisions.

The reference subsystem's inputs are based on the experiences and aptitudes of the instructors and the types of materials and strategies required by the program. As inservice training of instructors is often essential when a new program is offered, the components of this inservice training program need to be made explicit. The output of the reference subsystem, the consequent behaviors, skills, abilities, and attitudes of the instructors, serves as input into the central subsystem.

FIGURE 3  
SYSTEMS ANALYTIC MODEL



The experiences, abilities, attitudes, needs, and objectives of each of the components of the support system need to be identified. The administrator's, board member's, and the local community college's primary responsibility is to make decisions affecting the program, the students, and the instructors. The outputs of the support subsystem are the decisions that influence the central subsystem by inputting into the reference subsystem.

Relationships, objects, attributes, and goals are not necessarily quantifiable in the development of this model. Thus it encourages the evaluator to consider all relevant information and not just that which can be reduced to a specific quantity. As an "empirical" model it attempts to describe the real world as it exists. Thus, it is applicable to many different problems and it may indicate areas to be considered that would not have been perceived in the real world by a less rigorous approach. Although the systems analytic approach is an organizational framework which makes explicit the nature and relationships of inputs, processes, and outputs of a program, it is not a panacea for evaluation problems.

The Fortune/Hutchinson Methodology of Educational Evaluation  
(Benedict, 1973).

Fortune and Hutchinson have defined the purpose of evaluation as providing data for decision making and have developed prescriptive, not merely descriptive, procedures for educational evaluation. It is their contention that the only

legitimate function of the Fortune/Hutchinson Methodology is to provide data to decision makers for their decision making purposes. The following is an overview of the major conceptual elements of the evaluation methodology with a brief discussion of the purpose of each element.

#### 1.0 Negotiation of the contract.

- 1.1 Explication of the evaluation methodology and determination of whether it satisfies the needs of the temporary decision maker.
- 1.2 Identification of the enterprise. The enterprise is defined as that which is to be evaluated, or that area in which decisions are to be made on the basis of information to be gathered.
- 1.3 Elimination of misunderstanding. This insures a mutual understanding between evaluator and decision maker.
- 1.4 Identification of resources for evaluation. Resources are of two major kinds; those to be divided for evaluation among the various decision makers of the enterprise and those to be divided among the various evaluation tasks for each decision maker.
- 1.5 Identification of decision maker(s). A decision maker is defined as a person for whose decision making needs evaluative data are to be gathered.
- 1.6 Preparation of the contract. The actual agreement on the scope of the evaluation is committed to writing here before the evaluation proceeds.

#### 2.0 Design of the evaluation.

- 2.1 Identification of goals for each decision maker. The purpose is to arrive at as complete an approximation as possible of goals/intents of each decision maker as specified in the contract.
- 2.2 Identification of parts of the enterprise for each decision maker. Decision makers need data not only (or even usually) about their global enterprise but rather about specific parts or aspects of that enterprise.

- 2.3 Matching of goals to parts for each decision maker. This is done to provide a more efficient evaluation design and to provide more useful data for decision making.
  - 2.4 Operationalization of goals for each decision maker. This process systematically takes each goal and has the decision maker break it down into its directly observable and measurable components.
  - 2.5 Development of observational techniques. Observational techniques are designed for the first priority operationalized components of each decision maker's goals. Ideal criteria for observational techniques are that they be used directly, under natural conditions, unobtrusively.
- 3.0 Implementation of the evaluation design.
- 3.1 Implementation of measurement. Data recording devices are developed for the observational techniques developed (2.5).
  - 3.2 Reporting the data. Data is reported (on the results of 3.1) to the appropriate decision makers from the list of decision makers and in an efficient and appropriate manner.
  - 3.3 Evaluation of the evaluation. The evaluator determines the extent to which decisions were made on the data provided. He determines the amount of data provided which was used in the decision making process.
  - 3.4 Redesign of evaluation. It is first determined if redesign is necessary and then for which parts of the evaluation it is to be done. The redesigned part(s) would then be tested and adopted or redesigned as appropriate.

#### THE DEVELOPMENT OF EVALUATIVE INSTRUMENTS

There exists a vast array of standard instruments for which score norms, administration procedures, reliability, etc. are established for the evaluation of educational activities. However, innovative and nontraditional programs usually require special instruments. Frequently the format and struct-

ure of existing instruments can be used but the specific content of individual items must be revised to fit special programs.

When instruments are tailor-made for special programs, they should be pretested for comprehensibility, administrability (ease of administration and scoring), reliability (consistency of score) and, hopefully, validity (although in many instances validity may not be testable because of the absence of ultimate criteria).

#### Guidelines for Evaluative Instruments.

Cameron (1971) presented four critical categories for developing and adapting instruments for evaluation. These are matched with a set of indicative behaviors which are reproduced in Figure 4. Within each behavioral category, use of a particular type of instrument is implied. For example, discrimination (I. B.) is most economically and readily tested by means of some form of multiple-choice items. In contrast, analyzing and synthesizing behavior (II. A. and B.) is most conveniently assessed by some form of essay-type item.

#### Examples of Instruments.

Examples of some types of instruments that may be developed for evaluating programs may be found in the appendix. Figure 5 (Boris, 1972) is an instrument developed by Harrisburg Community and Harcum Junior Colleges for assessing the faculty's acceptance of innovation. Figure 6 (Saunders, 1972) is a questionnaire developed by North Carolina Community Col-

FIGURE 4  
INSTRUMENTATION GUIDELINES

<u>Educational Objectives</u>	<u>Behavioral Manifestations</u>
I. Knowledge.	I. Knowledge.
A. Items of specific information.	A. Recital.
B. Patterns of relationships, categorical knowledge.	B. Discrimination.
	C. Completion.
	D. Labeling.
II. Comprehension.	II. Comprehension.
A. Internal relationships, patterns of influence and interaction.	A. Analyzing.
B. Application and applicability of concepts.	B. Synthesizing.
	C. Appraisal.
	D. Problem-solving.
III. Motivation.	III. Motivation.
A. Broad, with respect to area.	A. Rating.
B. Narrow, with respect to course content.	B. Projection.
C. Deep, with respect to learning.	
D. Shallow, with respect to course.	
IV. Nonmental Abilities.	IV. Nonmental Abilities.
A. Perceptual.	A. Detection.
B. Motor.	B. Manipulation.
C. Social.	C. Demonstration.

leges and Technical Institutes to evaluate the occupational and educational status of former occupational students. Figures 7 and 8 (Saunders, 1972) are samples of the forms used to hand score the results received on the questionnaire in Figure 6.

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UNIVERSITY OF CALIF.  
LOS ANGELES

JUL 5 1974

CLEARINGHOUSE FOR  
JUNIOR COLLEGE  
INFORMATION

APPENDIX

FIGURE 5  
QUESTIONNAIRE  
FACULTY ACCEPTANCE OF INNOVATION

- |  | YES                      | NO                       |
|--|--------------------------|--------------------------|
| 1. Non-degree programs in continuing education should be expanded to meet the desires of the community.  | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. All things considered, student dissent on college campus has served a constructive function for both students and faculty.  | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Students should be encouraged to participate on virtually all college committees.   | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. With respect to special services for disadvantaged students, the administration should seek out students within the community, even if money and programs must be specifically sought to meet the need. | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. The college should provide community leadership in such areas of social change as civil rights, housing, equal employment, and social services.   | <input type="checkbox"/> | <input type="checkbox"/> |
| 6. The only limitations on student dress should be those specifically related to matters of hygiene and safety.  | <input type="checkbox"/> | <input type="checkbox"/> |
| 7. The role of the instructor at the junior college should include research and development about the techniques of outcomes of teaching.  | <input type="checkbox"/> | <input type="checkbox"/> |
| 8. The goals of education for junior college students should focus primarily upon preparation for employment and American cultures and traditions.   | <input type="checkbox"/> | <input type="checkbox"/> |
| 9. All things being equal, college administrators are in the best possible position to make decisions about college policy.  | <input type="checkbox"/> | <input type="checkbox"/> |
| 10. The present method of evaluating student performance through letter or numerical grades is probably the best one currently available.  | <input type="checkbox"/> | <input type="checkbox"/> |

## FIGURE 6

QUESTIONNAIRE  
OCCUPATIONAL AND EDUCATIONAL STATUS OF  
FORMER OCCUPATIONAL STUDENTS

Name \_\_\_\_\_

Curriculum \_\_\_\_\_ Last date attended \_\_\_\_\_ Day Month Year

Graduate: Yes \_\_\_ No \_\_\_ . County of residence: \_\_\_\_\_

1. Are you presently employed in a job for which you trained at this institution? Yes \_\_\_ No \_\_\_ .  
Give Your job title: \_\_\_\_\_
2. If you have no objections, please give your hourly, weekly, or monthly salary before any deductions.  
Hourly \_\_\_\_\_ or Weekly \_\_\_\_\_ or Monthly \_\_\_\_\_
3. If you are not presently employed in a job for which you trained, why not? (In some cases more than one check will be needed.)
  - \_\_\_ A. No jobs available for which I trained.
  - \_\_\_ B. Jobs for which I trained were available but my training was insufficient.
  - \_\_\_ C. I originally took a job for which I trained but I am presently doing another kind of work.
  - \_\_\_ D. Medical reasons (including maternity and family illness).
  - \_\_\_ E. Furthering my education.
  - \_\_\_ F. Homemaking.
  - \_\_\_ G. Military.
  - \_\_\_ H. Did not stay in school long enough.
  - \_\_\_ I. Dissatisfaction with the work for which I trained.
  - \_\_\_ J. Took the course for personal enrichment.
  - \_\_\_ K. Did not try to find a job in field.
  - \_\_\_ L. Other-specify \_\_\_\_\_
4. How necessary was your school training in getting your present job? (Check one.)
  - \_\_\_ A. Required.
  - \_\_\_ B. Very helpful.
  - \_\_\_ C. Of some help.
  - \_\_\_ D. No help at all.
  - \_\_\_ E. Not applicable.
5. If you did not graduate, why not? (Check one.)
  - \_\_\_ A. Personal, medical, and family concerns.
  - \_\_\_ B. Military (including draft and active service).
  - \_\_\_ C. Moved away from the area.
  - \_\_\_ D. Did not intend to graduate when I enrolled.

- E. Financial.
- F. Personal enrichment.
- G. Other-specify \_\_\_\_\_

6. To what extent are you using your school training in doing your present job? (Check one.)

- A. Couldn't do my job without the training.
- B. Find the training very helpful.
- C. Find the training of some help.
- D. Find the training of no help at all.
- E. Not applicable.

7. Are you interested in taking other courses at this institution? Yes \_\_\_\_\_ No \_\_\_\_\_  
What courses? \_\_\_\_\_

8. Sometimes students find that programs contain courses that are not useful to the jobs they take. Sometimes some subjects were not covered well enough or other courses should be included in the program. Rate the program you took. (Check one.)

- A. The program covered more than I needed to know to do my job.
- B. The program covered just what I needed to know to do my job.
- C. The program covered less than what I needed to know to do my job.

9. Using the scale from Superior to Poor, evaluate the teaching for each of the course groupings in which you studied. Use only one check for each.

	Superior	Very Good	Average	Below Average	Poor
English/Social Studies					
Lecture Courses in Your Major Area of Study					
Shop/Lab/Clinic Courses in Your Major Area of Study					
Lecture Courses Outside Your Major Area of Study					
Shop/Lab/Clinic Courses Outside Your Major Area of Study					

10. In most courses training aids and equipment are used for demonstration and practice. Here we are interested in the amount of available equipment. Rate the amount of available equipment and training aids for each of the course groupings in which you studied.

	Always Plenty	Usually Enough	Enough To Get By	Not Enough
English/Social Studies				
Lecture Courses in Your Major Area of Study				
Shop/Lab/Clinic Courses in Your Major Area of Study				
Lecture Courses Outside Your Major Area of Study				
Shop/Lab/Clinic Courses Outside Your Major Area of Study				

11. No matter how available, unless equipment and training aids are modern and appropriate for the job, the quality of instruction suffers. By the major course groupings listed below, rate the equipment used according to how modern and appropriate it was for the job.

	Very Modern and Appro- priate	Adequate but Needs Up-Dating	Not Adequate
English/Social Studies			
Lecture Courses in Your Major Area of Study			
Shop/Lab/Clinic Courses in Your Major Area of Study			
Lecture Courses Outside Your Major Area of Study			
Shop/Lab/Clinic Courses Outside Your Major Area of Study			

FIGURE 7  
HANDSCORING FORM FOR QUESTIONS 1 AND 2

PAGE I		CURRICULUM _____		
		Question #1 Yes                  No		Question #2
GRADUATES	Certificate			
	Degree			
	Diploma			
NON-GRADUATES	Degree			
	Diploma			

FIGURE 8  
HANDSCORING FORM FOR QUESTIONS 5,6,7

PAGE III

		CURRICULUM													
		Question #5					Question #6			Question #7					
		A	B	C	D	E	A	B	C		Sup.	Very Good	Ave.	Below Ave.	Poor
GRADUATES	Certificate									Eng.					
	Degree										Eng.				
	Diploma										Eng.				
	NON-GRADUATES	Degree									Eng.				
Diploma											Eng.				