The purpose of the project was to develop a formal needs assessment system for occupational education in the North Orange County Community College District and the Rancho Santiago Community College District. A brief summary of the purpose and scope of the project focuses on the need for an effective manpower information system, for cost-effectiveness of vocational education program offerings, and for student follow-up and placement. It is suggested that the needs assessment model could be useful in planning and evaluating community college vocational education programs and procuring data on manpower needs. A collection of appended materials make up the bulk of the document and include the following: a document abstract, the three authors' summary statements, correspondence, and the needs assessment model outline. The model consists of: (1) a statement of mission objective, (2) performance requirements, and (3) a mission profile representing the sequence of functions, and a function flow-back diagram showing interrelationships between the various steps of the model. (MW)
A PRELIMINARY NEEDS ASSESSMENT MODEL FOR DECISION MAKING
AND ACCOUNTABILITY RELATED TO OCCUPATIONAL
EDUCATION PROGRAMS AT TWO
COMMUNITY COLLEGES

The Education
Policy System

Cluster Coordinator
John A. Davitt

A Practicum Proposal Presented to Nova University
In Partial Fulfillment of the Requirements
for the Degree of Doctor of Education

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April 8, 1974
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PURPOSE AND SCOPE OF THE STUDY

Background of the Problem

The purpose of this project was to develop a system needed for conducting a formal needs assessment for occupational education in the North Orange County Community College District and the Rancho Santiago Community College District. Needs are defined as gaps between current outcomes and achievements and desired (or required) outcomes and achievements for learners, implementers and the community. Needs assessment is a formal process which determines all gaps and places them in order of priority. (Kaufman, 1972).

While the process of needs assessment has been given much attention prior to this study, the actual implementations of needs assessment in the two college districts has not been attempted. Therefore, the investigators were initially faced with the question, "Is it possible within the knowledge we now possess to develop a parsimonious and efficacious (cost effective) process which will identify and document priority gaps between the realities of the job world (kinds of jobs, skills, number of job openings) and the educational institution (program offerings, skills emphasized, enrollment)?". Ultimately, such a process would lead to a reduction in complete learners (i.e., students who have completed a program) who are unable to find and keep jobs, more effective allocation of resources and an increase in the effectiveness of vocational education in the two college districts.

Formal needs assessment provides governing boards and educational agencies with a valid, objective process for determining priorities for
occupational education. In addition, periodic reapplication of the formal assessment process provides public accountability by documenting the degree of gap (need) closure accomplished by actions initiated as a result of needs assessment. Thus, a needs assessment system proven in the field, would insure the possibility of providing a realistic approach to education for students on a continuing basis. Educators would know what industries seek in their potential employees, what skills are considered most important, and what the employment demand is for the various occupational education graduates.

The community college may be viewed as a business. That is, it has a labor force (instructors, counselors, administrators, etc.) and it turns out a product (its graduates and trainees). However, the community college is unique as a business in that it does not exist simply to produce profit nor does its' existence depend upon consumers who are willing to by its' products. Therefore, when removed from the accountability factor inherent in profit and loss, an alternative must be found. That alternative is provided by needs assessment. (Seveigert, 1971, p. 97).

Although much information may be generated regarding public image, employee competency, etc., this formal needs assessment model is seeking only answers to very basic questions, specifically: What is the current status of the two community college districts occupational educational programs in relation to current community needs? What courses do people want to take in comparison to what the college districts offer? What skills are learned or provided compared to the skills employers are seeking? How many jobs are available compared to the number of people being graduated? In essence, what is as compared to what should be.
Statement of the Problem

Because of its growth and population shift from a predominantly middle income white to a lower middle white community rapidly increasing Spanish speaking families and other minorities, and because the attraction of several industries, the North Orange County Community College District and the Rancho Santiago Community College District are faced with the urgent problem of evaluating their existent occupational education program offerings in order to determine if the needs of this changing population are being met. Since only one-third of the total operating budget is allocated for occupational educational programs and the demand for evidence of results, it becomes necessary that a systematic method of determining needs and priorities be developed to assist the two college districts administration, Board of Trustees and staff to make cost effective decisions relative to introducing, expanding, maintaining, reducing, upgrading and deletion of occupational education programs in their respective districts.

A needs assessment model was developed by Edward Alfaro, Dean of Occupational Education, John West, Director of Special Services of the Rancho Santiago Community College District and Rose Mary McDermott, Counselor, North Orange County Community College District, with assistance of selected personnel including students, educators, and community representatives from both college districts, and meets all agreed upon requirements identified. The development system model conforms to the criteria outlined by Kaufman (1972) and Lessinger, Parnell and Kaufman (1971) and also criteria presented at needs assessment workshops attended by the writers of this proposal. The needs assessment model will
be approved by 75% of the districts administration personnel for presentation to the Board of Trustees. If implemented the needs assessment system model will provide the required data upon which occupational education program decisions could be made, and as a vehicle for visibility of results.

**Background and Significance of the Study**

Industry and business have for many years utilized the concept of systematic planning to determine future needs in an effort to be more productive and effective in achieving their goals. Although community colleges in no way wish to depersonalize their activities in establishing priority needs because they work with people not things, it is evident that little has been done to systematize their efforts. In working with people regarding vocational education, business/industry trends have to be taken into consideration so that future program development will be done in a parsimonious and efficacious manner. (Sheparovych, 1973) Duplication of costly vocational education programs that are quickly outmoded due to technological changes is an example of poor or inaccurate planning. With the best of intentions in meeting the needs of the community, but with lack of sufficient knowledge on the future trends and the existence of similar programs in a nearby radius, waste of monies by districts and waste of energies and time by students takes place.

The problem of the widespread unemployment and underemployment of youth, particularly in the 17-26 year old age group, has attracted national attention. The number one problem facing educators today is the need for graduating students from public schools with salable skills.
In order to meet this need, new monies have been allocated to broaden the scope of occupational education to include pre-vocational experience, and innovative measures to broaden the occupational aspirations of youth and give them information from which meaningful occupational choice can be made. (Allen, 1968).

The question needs to be asked, "Are the community colleges doing everything possible to insure that students make a wise choice of a first vocation and to help them attain the minimum skills required to attain an entry level job at the point of exit from school?" Conversely, if students are so prepared, are there any factors within the economy itself which would prevent employment?

This investigation is not primarily concerned with the career choice or training of those students who plan to receive a baccalaureate degree. About 20% of young people graduate from college, a figure which matches well the approximately 20% of those professional and managerial jobs available in the economy which require a college degree. The investigation is more concerned with those who attain a high school diploma or less, and who may or may not subsequently enroll in a vocational-technical curriculum at one of the districts' colleges.

The unemployment rate among the 17-26 year old age group in Orange County, as throughout the nation, is disturbingly above the overall unemployment rate, which at the time of this writing, was about 6%. In addition to widespread unemployment among young people, there is the problem of inability to hold a job once one has been hired, underemployment, inability to move into higher level jobs, constant job shifts, not only among the less well educated, but even among college graduates going into
well paying positions in business and industry, and job dissatisfaction. There is considerable evidence that the schools which are offering specific skill training are concentrating on narrowly specialized jobs and not preparing for changing technology and manpower needs. (Flaim, 1968).

Another aspect of the problem is that large numbers of young people have no firm goal in life, but tend to drift into school programs, jobs, marriage, and other vital decisions. This is true for highly intelligent students who go to four year colleges as well as high school dropouts. A study (Katz, 1967) of over 4,000 students at Stanford University and the University of California, Berkeley, disclosed that a large number had never really made an active decision in their lives. Like their less fortunate brothers, they have drifted into school, into their major field, into careers, and even into dating and marriage. This aimlessness and lack of goals and commitment are understandably part of the uncertainty felt by the younger generation in a rapidly changing society. But regardless of the causes, the result is a tremendous waste or underuse of the creative potential.

The study points out that, "In present day society, the career an individual settles into not only determines the "40" hours of the week devoted to work, but has a powerful shaping force on the remaining 128 hours. Adolescents ... see a career choice as that invisible lifeline connecting them to the adult world". This choice is too often "a broken line of communication that leaves the young person with a sense of isolation and desperation." (Katz, p. 373).

It was also noted that the whole school experience for many adolescents has been training in how to trade something that may not be mean-
The sense of meaningful participation is postponed because for 12 years the student is encouraged to think in order to meet some external set of demands and expectations, and yet, is expected to have clear-cut career plans, based on his own interests and abilities. Yet the data suggest that "large numbers of very talented students do not appear to be choosing careers on the basis of their measured interest". The "examined life" gives way to "life by examination".

Aside from matters of career choice and inadequate preparation, there are factors in the economy itself which militate against full employment for this age group. There is a real question as to whether the economy as presently constituted, can provide employment for all those in the labor market. In fact, the term, "full employment" has come to mean a state where no more than four percent of the population of the labor market are out of jobs. One of the major, if often unrecognized, reasons for societies' attempt to prolong formal schooling for youth as long as possible is that the economy could not possibly absorb all of those who would like to leave school and go to work.

The community college population also contains the so-called "new student". These are women, older adults, and students from ethnic minorities. According to Lyndon B. Johnson, the under-utilization of our women in this century is an extravagance we can no longer afford. "More than half of today's young women will be employed full time outside the home for 25 years or more during their lifetimes". Data from the U. S. Department of Labor reveal that today nearly one half of all women between the ages of 16 and 64 are in the labor force, and that 60% of these women are
married; these percentages are on the increase. (Pfiffner, 1972). The "Womens Lib" movement has also contributed to the number of women returning to school and some of these are entering college for the first time. Whereas in the pre-industrial era, vocational freedom was often quiet, hidden away, and brought to nonactivity because of the lack of possibilities; the new era encompasses a multitude of choice. The changes in job requirements, the early completion of families; the ability to work and study at the same time; and, perhaps most importantly, the desire of men and women to lead more satisfying lives have encouraged the "recycling of lifestyles" and careers. (Hiestand, 1971). The question of a career may open several times during the course of our lives. There is a marked increase in second careers for people in general, and for those over 35 in particular. (Hoenninger, 1973). Since 1900, the number of persons in the United States age 65 and over has increased over 600%. One in every 10 persons is now 65 or over. (Carlson, 1973). The aged do decline in certain aspects but in the areas of vocabulary, general information, verbal reasoning, judgment, etc. older adults often show definite gains. Older adults who remain mentally active show less mental deterioration than those who don't remain active.

Students from the ethnic minorities population, who comprise a sizeable percentage of the unemployed youth, are also making a great impact on the community college. These students are demanding that they be prepared to enter the mob market. Many of these students are coming to the college with very little, if any, preparation in the basics, therefore, special programs and services in vocational education need to be implemented to enable these students to achieve vocational education objectives otherwise beyond their reach because of their lack of preparation. (Love, 1970).
In recognition of these factors, educators, businessmen, and governmental agencies have been trying to upgrade occupational preparation with increased expenditure, new training programs, and better methods of guidance. However, the lack of reliable data on manpower requirements continues to plague those at the community college whose responsibility is to plan vocational education programs which will satisfy manpower needs. Still absent are state, regional, and local data or numbers of persons needed in specific occupations both on short and long term basis. As long as these needs and supplies remain unidentified, the potential of vocational education will remain unexploited. A needs assessment as a management information system needs to be developed, implemented, and validated.
CONCLUSIONS AND RECOMMENDATIONS

Conclusions

Vocational Education Programs in the North Orange County Community College District and the Rancho Santiago Community College District continue to make strides in solving many of the vexing problems that serve to hinder qualitative and quantitative progress toward its potential. However, much concern still exists in the following: (1) effective manpower information system, (2) greater accountability (cost effectiveness) of vocational education program offerings, (3) and student follow-up placement. It is suggested that this NEEDS ASSESSMENT MODEL be implemented by the two college districts as a formal means of identifying gaps and placing them in order of priority for better planning and evaluation of their occupational education program offerings.

Recommendations

This investigation attempted to find out more about the planning and evaluation system of vocational education programs in community colleges. The review of literature investigated program offerings in relation to employment demands as well as management systems, and NEEDS ASSESSMENT MODELS which are being successfully used in other community colleges throughout the country.

The investigation concluded that in relation to employment demands, the community college which lacks an ongoing NEEDS ASSESSMENT PROCESS is flying by the seat of its' pants. Schools with an enrollment of 5,000 or more should set aside at least $20,000 so that full time NEEDS ASSESSMENT can become an ongoing process.
NEEDS ASSESSMENT offers colleges an effective vehicle for maintaining consonance between community college occupational education programs and the labor market. The NEEDS ASSESSMENT PROCESS also guarantees accountability by measuring the amount of "gap" need closures that occur.

NEEDS ASSESSMENT is essential for determining goals and objectives and is the basis for effective management planning.
BIBLIOGRAPHY


Pfiffner, Virginia T., "Are We Really Meeting the Needs of Women Students?", Community and Junior College Journal, August/September, 1972.


A PRELIMINARY NEEDS ASSESSMENT MODEL FOR DECISION MAKING
AND ACCOUNTABILITY RELATED TO OCCUPATIONAL
EDUCATION PROGRAMS AT TWO
COMMUNITY COLLEGES
(Abstract)

Since demand for vocational education programs are on the decline and generally cost more per student than academic or general education, college districts are faced with the dilemma of strengthening and expanding their vocational education offerings with financial resources for the school becoming increasingly scarce. It is imperative that administrators of community colleges have a formal needs assessment system that will provide them with data which will better assist them in planning and evaluating their vocational education programs.

Purpose

The purpose of this investigation was to develop a system for conducting formal needs assessments for vocational education program offerings in the North Orange County Community College District and the Rancho Santiago Community College District.

Procedure

The investigators attended workshops and lectures on System Management, System Planning and Needs Assessment. Literature pertaining to occupational education in California Community Colleges and System Management was reviewed. The investigators met with the vocational education deans, directors, faculty and community representatives from their respective districts to discuss their progress on the model and allow
for and encourage input.

**Findings**

There does not exist in California, and particularly in Orange County where the two college districts of this study are located, a formal needs assessment system for procuring data on manpower needs which are imperative for program planning and evaluation of occupational offerings of the two college districts.

The administrative staff and faculty at both college districts agreed to the development and accepted the developed needs assessment model for presentation to their respective Boards of Trustees for approval of its implementation and validation.
One of the major functions of the community college is occupational preparation. The high cost of occupational programs, the open door admission policies, budget cutbacks and changes in employment trends has caused administrators and Board of Trustee members to re-examine their management planning and evaluation procedures.

The major purpose of vocational education is to provide job skills that result in successful job placement and retention. Without accurate labor market information (availability of jobs and job skill requirements) and educational output data (which institutions are training how many students for which jobs), the attempt by college districts to provide vocational training will be based on guesswork and not complete data on population needs, current and future labor market needs, and specific skills required by the employer. Responsible vocational education planning, therefore, must grow out of a solid data base of accurate labor market information if such planning efforts are to meet future training and manpower requirements.

There does not now exist in the State of California such a labor market information system. Before new programs can be initiated, state regulations require that all college districts conduct or obtain job market analysis that identifies and projects job market opportunities and the needs of the labor market; with this requirement and the need to be accountable for all program offerings, a NEEDS ASSESSMENT could provide an organizational mechanism to assist the North Orange County Community College
District and the Rancho Santiago Community College District's vocational education staff member, to plan and review vocational education training programs that would eliminate gaps between current outcomes and achievements and desired (or required) outcomes and achievements for learners, implementers, and the community they serve.

Assisting in the development and understanding of this needs assessment model has afforded me the opportunity to develop a greater knowledge of system management, which will be an invaluable asset to me in attempting to fulfill my duties and responsibilities as Dean of Occupational Education for the Rancho Santiago Community College District.
SUMMARY

(Rose Mary McDermott)

The future can be viewed on a crisis action oriented basis or on a projected estimate of anticipated changes. With the rapidity of change in our economic status, technological changes and the community college population, it behooves us who are part of the college staff serving these needs that we plan ahead.

Utilizing a system approach to planning as described in this practicum seems a feasible way of attempting to do this. Planning in this way utilizes the talents of all concerned in the presentation of our commodity to the public. The administration must be convinced of its' worth and the work of such a process can be done by many others and monitored by those in administration. This model system needs assessment approach can be applied to all facets of the educational institution, not only to the occupational educational division as set forth in this practicum. The occupational education segment of the community college can best profit from this process due to the emphasis on vocational education today. The trend is to provide preparation for job entry. This has meaning to the public today. The community college has a commitment to serve all of its' public in its' service area. To do this, the institution should adopt a marketing approach and all employees of the institution should see themselves as members of a profit sharing enterprise directed toward maximum services with cost benefit and cost effectiveness commitments. (Bender, 1973). Committees on campus to investigate the model system analysis approach, outside speakers with expertise in this area, and in-service
workshops of those in decision making capacities should be put into action so that an awareness of this process is understood. This is vital or community colleges will find that they are falling behind in their role as a comprehensive institution in the specific realm of providing vocational education.

As a counselor for the Vocational Education Division at Cypress College, I feel the knowledge gleaned from participating in the development of this model for the practicum will assist me in helping those in the planning of courses and programs for vocational education and will be an asset in providing meaningful curricula. Also, as a counselor, I will be able to advise students regarding occupations which will offer opportunities when they are ready to enter the job market.
SUMMARY

(John West)

Perhaps the most significant benefit gained from the development of this practicum is the realization of the value of a systematic methodology for decision making, based upon actual needs as perceived by all parties concerned. Implementation necessarily requires that all alternatives be seriously considered and subsequently accepted or rejected on the basis of their individual merit. This project undertaking has served to expose the failings of approaches previously utilized in many complex organizations, i.e., hit-or-miss approaches. As a direct result of this project, the Special Services Division at Santa Ana College now executes its needs assessment functions with as much input as is available, with none being rejected without objective evaluation.

My own role, as Director of Special Services, is to develop two new programs - the Center for Disabled Students and the Learning Resources Center, and to coordinate a third - the Extended Opportunities Programs and Services. In each instance, no comprehensive system had been devised to perform needs assessment. Some programs were established simply to satisfy mandates, etc., with little concern as to whether or not students were being provided with needed services.

My function, then, is to determine as accurately as possible, the needs, within our province of the community we are committed to serve. This determination should, ideally, be made prior to institutionalization of programs. Until now, this has not always been done.
RESPONSIBILITY AND CONTRIBUTION
OF EACH INDIVIDUAL PARTICIPANT

Every effort possible was used by the investigators of this practicum to equally share the responsibilities and to contribute in the development of the needs assessment model.

The review of the literature was the responsibility of all three investigators. Each participant attended workshops and lecture series conducted by nationally acclaimed persons, pertaining to System Management and Needs Assessment. All information and knowledge obtained was shared with the other two investigators.

All three investigators worked jointly in developing the following: the title, the statement of the problem, the mission objective, the mission functions, the conclusion and recommendations.

Mr. Alfaro was responsible for the following: the performance requirements, the mission profile flow chart, organization of all material and first draft, and the abstract. Mrs. McDermott was responsible for the following: the definition of terms, the bibliography, reviewing the first draft, and editing the final draft. Mr. West was responsible for the following: the milestone chart, reviewing and refining the first draft, as well as assisting with the final draft.

The investigators met regularly to discuss their assignments and evaluate the progress of the needs assessment model. Each investigator was responsible for meeting with assigned college staff and community representatives to discuss the model and receive input.
Inter-office Memo

Date: December 18, 1973
To: All Cabinet Members
From: Edward Alfaro
Subject: Needs Assessment Model

Attached is the rough proposal that was discussed in Cabinet. I would appreciate your input in the finalization of this proposal.

Please transmit all changes to me no later than December 22, 1973.

EA: pak
Attachment
Inter-office Memo

Date: April 10, 1974

To: Dr. Johnson

From: Ed Alfaro

Subject: Needs Assessment Model

Attached is a final copy of the Needs Assessment Model with all changes as requested by the Cabinet, Administrators, and Faculty.

I am presenting this Model as a docket item for the next Board meeting. When approved by the Board, I am asking for its implementation on July 1, 1974.

John, this Model is also being submitted as a Practicum requirement on my Doctorate Program at Nova University. The workshops and lectures which we were allowed to attend have been invaluable. I appreciate your cooperation and interest.

EA:ch
Attachment
Inter-office Memo

Date: December 20, 1973
To: Mr. Alfaro
From: Vernon Armstrong
Subject: Needs Assessment System Proposal

It looks like an excellent start to me, Ed. I would wonder on Mission statement that whether the implementation can be accomplished by anyone except the President. Maybe the thing will develop and recommend to the President for implementation... might strengthen the process along the way.

If item 8 under your management plan includes a time frame, as I am sure it does, the whole thing looks good to me.
Needs Assessment

Needs assessment is an ongoing formalized process for identifying and documenting outcome discrepancies (gaps) between "what is" and "what should be" and for placing these gaps in priority order.

Edward Alfaro, Dean Occupational Education
John West, Director Special Services
Rancho Santiago Community College District

and

Rose Mary McDermott, Counselor
North Orange County Community College District
NEEDS ASSESSMENT MODEL

The following needs assessment model represents a plan to identify occupational education needs using system technology. The model consists of:

1. A mission objective or statement of overall intent for the model,
2. Performance requirements which are the identified specifications to be met in the application of the model, and
3. A mission profile which represents the functions to be accomplished in sequential order, the function flow-block diagram (of the mission profile) shows the inter-relationship between the various steps of the needs assessment model.

Mission Objective

By April 10, 1974, Edward Alfaro, Dean of Occupational Education, and John West, Director of Special Services, Rancho Santiago Community College District, and Rose Mary McDermott, Counselor, North Orange County Community College District, working with selected personnel including students, educators, and community, will develop a needs assessment system model to be presented to their respective Boards of Trustees and administrative staff which will be approved for implementation by the Boards of Trustees and referred to their respective college presidents for implementation on or before July 1, 1974. If implemented, the system model will be used in making decisions, and as a vehicle for accountability purposes so that one of the following will result: (1) higher learner performance: same cost, or (2) same performance for lower cost, or (3) much higher performance at higher cost. The needs assessment system model will minimally deliver the required decision data as relative to Vocational Education
on the following: (1) current and new jobs within the county job structure, (2) number of personnel necessary for the current and new jobs within the county job structure, (3) training level required for job entry, (4) training levels of students completing currently offered occupational education programs, (5) number of certificated and graduate students employed by companies or agencies where current and new jobs occur, (6) tentative curriculum for new programs or program upgrading, (7) student placement programs for occupational education, (8) an evaluation and student follow-up procedure to determine if program objectives have been attained, (9) an estimation of the resource requirement, including cost to implement the entire program, (10) a management plan for implementation of the total system.

The needs assessment model will also conform to criteria outlined by Kaufman (1972), and Lessinger, Parnell and Kaufman (1971), and also criteria presented at needs assessment workshops, e.g., The California Community College Statewide Series of In-Service Training Workshops (1973-74), and County of Orange's Management Information System (M.I.S.). The needs assessment model will be accepted by the Superintendents, the Deans of Vocational Education, the Administrative Cabinets, and the Boards of Trustees of both college districts.

Performance Requirements

1. Needs assessment model will be acceptable to the community along with business and industry of Orange County as measured by approval of appropriate advisory committees.
2. The model developed by the investigators will be exportable/usable at other community colleges as judged by at least four of five vocational deans from other colleges in California.

3. The identified needs will be placed in priority order using an established set of criteria for determining priority, and will be approved by at least 65% of each group.

4. The model will be acceptable to the North Orange County Community College District and the Rancho Santiago Community College District as measured by approval by 70% of the administrative staffs in vocational education.

5. The model will be approved for implementation by at least five of seven Board of Trustee members at each college district.

6. The model will define cost limitations and be designed within those constraints so that expenses will not exceed budget for any year.

7. The model will be developed by the investigators to meet the objective of the proposal.

8. The objective of the proposal will be developed by authors with input and approval of at least 70% of vocational education administrators of the two districts.

9. The model will incorporate statistical data available from the Research Departments of the two districts, the Unified High School Districts, and service agencies such as Employment Development Department, and Area Manpower Council.
10. The model will be financed partially by VEA Part B Funds but not to exceed 5% of the entitlement of each district.

11. The model will provide data to management personnel for decision making relative to vocational education programs as measured by at least 10% charge with no less than one charge per division based upon the data provided to them by this needs assessment.

12. The number of students placed shall be identified by college placement records and records showing certificates of completion.

13. The model will provide for determining the needs of target students, educators in the district, and the communities served by the college as indicated by at least 60% of each group approving the model.

14. The model will identify and support with empirical data, the following:
   a. Current and projected learner loads (1-10 years).
   b. Current and projected occupational education employment requirements (1-10 years).
   c. Extent to which current resources and facilities can or cannot handle current and projected requirements.
   d. Options to meet current and anticipated needs along with estimated cost effective benefits.
   e. Recommendations for this selection of options with anticipated cost and benefits.

15. The model will take into consideration geographic locations, industry needs, ethnic and cultural concentration, and accessibility factors including transportation and facilities availability.
NEEDS ASSESSMENT MODEL - SUMMARY MISSION PROFILE

1.0 Develop Need Assessment Proposal

2.0 Obtain Required Approvals to Proceed

3.0 Develop Management Plan for Implementation of Needs Assessment Program and Develop Tabulation Implementation

4.0 Provide In-Service Training for Administrators Relative to Implementation of Needs Assessment System (If Required)

5.0 Determine Population to be Served

6.0 Determine Population Characteristic

7.0 Determine Needs Assessment Data Requirements

8.0 Determine Procedures for Data Acquisition

9.0 Make/Buy/Obtain Required Data Instrumentation

To Phase II
NEEDS ASSESSMENT MODEL - SUMMARY MISSION PROFILE (Continued)

10.0 Identify Sub-Populations to be Surveyed

11.0 Identify Employers to be Surveyed

12.0 Identify Current Occupational Education Student Enrollment by the Two College Districts and Competing Institutions

13.0 Identify Former Students to be Surveyed

14.0 Identify Current and Future Job Openings

15.0 Identify Occupational Education Student Enrollment at the Two College Districts and Competing Institutions

16.0 Identify Former Community College Occupational Education Student Employment Status

17.0 Identify Employers Hiring/Not Hiring Occupational Education Graduates

18.0 Match/Mismatch Current and Future Job Market with Community College Occupational Education Program Offered/Non-Offered

19.0 Develop (and Install) Occupational Education Decision-Making Sub-System

20.0 Identify Tentative Programs to Eliminate, Maintain, Expand and Introduce

21.0 Select Occupational Education Programs/Program Areas to Investigate In-Depth

22.0 1st Decision Point

BEST COPY AVAILABLE
NEEDS ASSESSMENT MODEL - SUMMARY MISSION PROFILE (Continued)

22.0 Determine Priority Job Skill Requirement from Employers and Former Students

23.0 Determine Current Program Skills Emphases from Instructors

24.0 Match/Mismatch Job Skill Requirements and Program Skills Currently Taught

25.0 Reconcile Job Skill Requirements with Program Skill Offerings

26.0 Determine Program Revision/Installation Requirements

27.0 Select Tentative Programs to Offer

28.0 Identify Learner SKA Needs for each Occupational Education Program Selector

29.0 Identify Learner Characteristics Needs for each Occupational Education Program Selector

30.0 Develop Program Objectives for each Occupational Education Program Selected

31.0 Develop Tentative Program to Achieve Learner Objectives for each Occupational Education Program Selected

32.0 Identify Resource Requirements for each Occupational Program Selected

33.0 Select Final Programs to Offer

34.0 Develop/Install Requirement Sub-System

35.0 Develop/Install Placement Sub-System

36.0 Determine Community and High School Senior Enrollment Interests

37.0 Apply Recruitment Sub-System

38.0 Apply Placement Sub-System

Revised as Required

BEST COPY AVAILABLE
NEEDS ASSESSMENT PRODUCTS (OUTCOMES)

1. List of occupational education students entering job market.
   - Community College
   - Other Training Institutions
   - High Schools
2. List of employers who have hired district's former students.
3. List of employers who have not hired the district's former students.
4. List of current occupational education programs with current jobs available.
5. List of current occupational education programs with no current jobs available.
7. List of current occupational education programs with no future jobs.
8. List of program areas (no current offerings) with current jobs.
9. List of program areas with no current jobs.
10. List of program areas with future jobs available.
11. List of program areas with no future jobs available.
12. Prioritized list of job skills required by employers for selected occupational education programs.
13. Program decision system.
14. List of occupational education programs to:
   - Maintain
   - Expand
   - Reduce
   - Eliminate
   - Introduce

15. List of community members interested in skills, upgrading, or learning new skills (for individuals and for total group).

16. List of community enrollment intentions (for individuals and for total groups).

17. A listing of high school students currently enrolled in occupational education programs.

18. A list of current programs of all 12th grade students in articulating high schools.

19. List of post secondary plans (education/employment) for all 12th grade high school students (articulating).

20. A list of number of high school occupational education students completing training to enter job market.

21. List of SKA (Skills, Knowledges, Attitudes) needs of programs investigated.

22. List of resource needs of programs investigated.
Cost-benefit Analysis - An analysis relating costs of a program (or an outcome) with the benefits to be accrued from the successful achievement of the outcomes. In its simplest form, cost-benefit analysis asks the two simultaneous questions of "what do I give?" and "what do I get?" There are tools for determining actual or predicted cost benefit, including the tools of Planning-Programming-Budgeting System (PPBS), and systems analysis.

Function Flow Block Diagram - The diagrammatic representation of functions that show the order and relations among functions. The order is shown by the numbers and the solid lines.

Function - One of a group of related outcomes (or products or sub-products) contributing to a larger outcome (or product).

Mission Analysis - The process for identifying, for the problem selected, the elements of (1) where we are going? (2) what criteria will we use to let us know when we have arrived? and (3) a management plan to show what functions must be performed to get us from where we are to where we are going.

Mission - The overall job to be done to meet the identified and documented needs.

Mission Objective - An objective that measurable states the specifications for determining when we have successfully reached where we should be. This performance objective has four elements. (1) what is to be done to demonstrate completion? (2) by whom it is to be demonstrated? (3) under
Mission Profile - A management plan depicting, in flow chart form, the functions or elements necessary to get from where one is to the satisfactory completion of the mission (as measured by the mission objective and its associated performance requirements).

M.B.O. - Management By Objectives.

Occupational Education - The process of educating and preparing students for the world of work. The terms occupational and vocational education are used interchangeably in the study.

Performance Requirement - A measurable specification for outcome. There may be two types of performance requirements - one that tells what the end product will look like or do, and another type that identifies specifications that are "given" relative to the manner in which the product is to be produced.

Plan - A projection of what is to be accomplished to reach valid and valued goals.

Process - The application of the ways and means for achieving any result, or outcome.

Product - The result, or end, or outcome.

S.K.A. - Skills, Knowledges, Attitudes

System - The sum total of parts working independently and working together to achieve required results or outcomes, based upon needs.
**System Approach** - A process by which needs are identified, problems are selected, requirements for problem solution are identified, solutions are selected from alternatives, methods and means are obtained and implemented, results are evaluated, and required revisions to all or part of the system are made so that the needs are eliminated.

**Task Analysis** - The lowest level of system analysis. Task analysis shows, usually in tabular form (rather than flow chart form) the units of performance associated with each subfunction.
Indicates time within which function will be achieved
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