The report is a review and analysis of the status of the Public Service Occupations Curriculum Project, and is an outgrowth of discussions and recommendations from the February 1974 meeting of the National Advisory and Review Committee of the California State Department of Education, Vocational Education Section. Approximately one-half of the report is an overview of accomplishments relating to: the design of the curriculum, the orientation phase, the preparation phase, development of test materials, design of the exploration guide, and design of the implementation guide. The remainder of the report is devoted to recommended activities and strategies relating to: last year's work, input gained from field testing, the exploration guide, the implementation guide, packaging the projected materials, and dissemination of the project materials. (Author/PR)
An Appraisal of the Second Year and Recommended Activities and Strategies of the National Advisory and Review Committee

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This report is one of a series of documents developed to inform and assist those educators who are involved in implementing career education programs concerned with public service occupations. It presents the results of the third annual meeting of the National Advisory and Review Committee, Public Service Occupations Curriculum Project, with recommended activities and strategies for further implementation.

Many individuals and organizations have made substantive contributions toward the success of this project. The many activities of the past year could not have been accomplished without those individuals and groups who so generously put their time and efforts into every stage of this project--the staff of the Program Planning Unit, Vocational Education Section of the California State Department of Education; administrators of the Department of Education; members of the National Advisory and Review Committee; the U. S. Office of Education; professional associations; members of local, state, and federal governments; educators; and many interested observers. To all involved we express our deepest gratitude. Your assistance has enabled us to establish programs that we feel will be of great value in helping the youth of the nation in proper career selection.
This summary report has been prepared by Mrs. Constance F. Gipson, Curriculum Specialist, Program Planning Unit, Vocational Education Section of the State Department of Education.

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INTRODUCTION

The California State Department of Education, Vocational Education Section, under a grant from the U. S. Office of Education, has endeavored to develop nationally applicable, secondary-school guidelines for one of the fifteen occupational clusters -- the public-service occupations career field.

During the early stages of the project, public-service occupations were defined as "those occupations pursued by persons performing the functions necessary to accomplish the mission of local, county, state, and federal government, except for military service and trades requiring an apprenticeship. These missions reflect the services desired or needed by individuals and groups...and are performed through arrangements or organizations established by society normally on a nonprofit basis and usually supported by tax revenues."

Since this is the third in a series of process reports, most of the information contained herein focuses on the project activities from November 1972 to February 1974. Detailed information on the early stages of the project may be found in the preceding process reports.

This report is a review and analysis of the status of the Public Service Occupations Curriculum Project at this time, and is an outgrowth of the discussions and recommendations of the National Advisory and Review Committee meeting held in San Francisco on February 11 and 12, 1974. Deliberations focused on the following generic questions:
What is the consensus of this committee concerning the curriculum system developed thus far?

What problems and experiences can be identified in the pilot testing which should be considered in the development of the exploration and implementation guides?

What should the exploratory phase of our work look like, and should the units of instruction look like the model presented?

What concepts, or information should be included in the implementation guide?

Should articulation be handled separately or as a part of the implementation guide?

What form should the final package of Public Service Occupations Curriculum Project guides take?

What methods of dissemination should be emphasized to maximize the impact of the Public Service Occupations Curriculum Project on the educational community?
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OVERVIEW OF
ACCOMPLISHMENTS
The staff of the Public Service Occupations Curriculum Project has made great strides toward the fulfillment of its contractual responsibilities. A very great amount of work has been accomplished by the grantee. Hundreds of people have made substantive contributions in the development of the instructional products produced by the staff.

The Design of the Curriculum

During the early phases of the project, an analysis of public service occupations was conducted. Based on the definition of public service, eight "major occupational groups" and thirty-nine "major job families" were identified. It is notable that over 400 persons, most of whom were employed in government service, were involved in this validation process.

Based on this survey, curriculum guides for the exploration, orientation, and preparation phases of career education were planned for the public service occupational cluster. The guide, Orientation to Public Service Occupations, was designed to orient students to public service, and includes separate sections devoted to each of the 8 major occupational groups. Since there were many areas of commonality in all public service occupations, the Phase IV Guide, Common Core, was designed to cover the basic functional and academic skills common to all areas of public service. In addition, specialty cores at the Phase IV preparation level have been developed to provide students with elementary entry-level job skills in areas of high criticality within public
service, as determined by labor market data and other statistical information. An exploration guide, now being developed, will give junior high school students the opportunity to explore many areas within public service.

The format for all the guides utilizes a unit approach, with each unit containing subject matter content, teacher management activities, student learning activities, and appropriate instructional resources.

The interrelationship of the various curriculum guidelines is indicated by Figure 1, following.

The Orientation Phase

The Phase III guide, Orientation to Public Service, was completed. It provides information about government in terms of employment opportunities, salaries, and benefits, and allows students to determine if their interests, abilities, and values relate to the eight major occupational groups of public service. The guide includes career ladders and task analyses for major and entry-level jobs, enabling students to determine whether they wish to move into the public sector and/or to move up to higher education.

After the Orientation Guide was validated by special task groups throughout the country, preliminary pilot testing was conducted in two school districts in Long Beach and Fremont, California. In general, the guide was well received by teachers and students and appeared to result in student learning gain.

The Preparation Phase

After the high criticality areas of public service were identified, separate curriculum guides were developed to cover those specialty areas. These guides, which have been completed, are:

- Preparing for Public Service Occupations - Common Core
- Preparing for Public Service Occupations - Social Services
- Preparing for Public Service Occupations - Educational Services
- Preparing for Public Service Occupations - Law Enforcement Services
Figure 1 - Interrelationship of Curriculum Guides
Over 800 experts were involved in the development and validation of the Phase IV curriculum guides. These representatives came from the areas of social work, community services, probation protection, and legal agencies; school personnel; and members of local, state, and federal parks and recreation departments.

**Development of Test Materials**

In order to determine if students learn from the teachings of the public service curriculum materials, pre- and post-tests were developed. A pre- post-test was developed for each unit in the orientation and preparation guides. As the project staff felt that any evaluation of student learning should adhere closely to the intended outcomes of instruction, each test was based on the instructional objectives of each unit. The instructional objectives in each unit guided the development of test content. Since these tests were designed to measure how well each student attains the required standard of competence, the tests are criterion-referenced tests.

An item analysis was also conducted on each test item to ensure content validity and reliability. Many school districts in New York and California participated in the validation of these tests.

**Field Testing**

Extensive pilot testing was conducted to ascertain the reliability, feasibility, and validity of the orientation and preparation materials, and to determine the amount of student learning gain experienced by students in the program. Eight sites, which varied in geographic location, population size, environment, and socioeconomic level, were selected. Private and parochial schools as well as public institutions were included. One component of the research design was concerned with the effects of the materials in all classroom situations, therefore the majority of the students in the program at some test sites could be classified as disadvantaged.
Field testing occurred at the following sites:

- Fremont Unified School District, Fremont, California
- Long Beach Unified School District, Long Beach, California
- Orange Unified School District, Orange, California
- San Diego City School District, San Diego, California
- Oswego School District, Oswego, New York
- Sweethome School District, Amherst, New York
- Williamsville School District, Williamsville, New York
- Canisius High School, Buffalo, New York

During the pilot testing, both the curriculum products and the process of implementing the program were assessed. The content validity of the products was assessed by the teachers and students involved in the program. Specific information on administrative feasibility (such as budget factors, personnel requirements, facilities and schedules, equipment and materials, and coordination with other activities) was gained through structured interviews. Product usability was assessed by using evaluation questionnaires, structured interviews, and staff observation.

Results of Field Testing

Empirical data have been gathered which indicate that the curriculum was highly effective in diverse classroom situations. Teachers, administrators, and students at all of the test sites praised the interest level of the materials and reported that the program resulted in a highly stimulating learning environment. The program was successful whether it was a separate course or infused into the regular program.

Teacher responses to Public Service Product Evaluation forms indicated a high level of acceptance. The teachers generally felt that the guides were relevant, easy to use, and comprehensive in scope. On-site interviews with demonstration site teachers confirmed their anonymously written evaluations.

Administrators also responded to the Public Service Product Evaluation form. They indicated that the curriculum had a high degree of administrative
usability; that is, the public service curriculum was easy to adapt and schedule into the total school curriculum. It should be mentioned that the demonstration site administrators had no special funds for implementing the public service curriculum. A positive attitude on the part of the local school administration went a long way toward making the curriculum a success from an administrative standpoint.

Students were evaluated in terms of "learning gain" after taking a public service class. The results of the pre- and post-test data shows that students uniformly made significant learning gains after taking individual instructional units. In addition to student learning, both the public service teachers and project staff interviewed several students at random from the demonstration site classrooms.

The results of these informal interviews confirmed the objective data that the students were indeed "learning" about public service. In addition, these interviews impressed the teachers and staff with the positive attitude and high degree of motivation expressed by these students. The public service students, whether deciding to pursue the field of public service or not, expressed satisfaction with having an opportunity to be exposed to this career family.

**Design of the Exploration Guide**

After determining the basic concepts of public service, the project staff developed 17 units, with one or more units based on each concept. For example, three units, Enforcing Our Laws, Correcting the Guilty, and The Firefighter, were based on the concept, "Public Service Workers Protect Our Lives and Property." The units were keyed to the basic subjects commonly taught at the junior high school level, facilitating their infusion into the regular curriculum. Although the guide was not divided into the eight major occupational groups in public service, all of the occupational groups are included.

The format of the Exploration Guide is consistent with the Orientation and Preparation Guides, in the sense that it utilizes a unit approach, contains instructional objectives, content information, teacher management activities,
and appropriate resources. However, the individual student activities were designed to be duplicated by the teacher for individual use.

**Design of the Implementation Guide**

An *Implementation Guide* was designed to provide assistance to administrators and teachers who wish to implement a public service career education program. The guide contains suggestions on how to plan and organize a public service program; utilize the curriculum guides; have an effective work experience program; garner community support and resources; and how to articulate the program horizontally with other educational programs and vertically between sending and receiving institutions.
RECOMMENDED

ACTIVITIES AND STRATEGIES
On February 11 and 12, 1974, the National Advisory and Review Committee met in San Francisco to review the past accomplishments of the project and to provide the broad outlines and general concepts that would be implemented in the future. The deliberations of the meeting were thought-provoking, with all the participants actively involved in the discussions.

Six generic questions were discussed in depth. These questions centered on the accomplishments of the past year, the results of pilot testing, the development of the Exploratory and Implementation Guides, and over-all activities to elevate the project's impact on the educational community.

A summary follows covering the discussion related to each of the six generic questions and the resultant recommendations of the National Advisory Committee.
Question 1. What is the consensus of this Committee concerning the curriculum system developed thus far?

Comments from the Advisory Committee included such comments as: "excellent system," "far ahead of anything else in the field," and "the material is adaptable to a wide range of situations."

The Committee indicated that they are well-pleased with the work of the project to date and feel that a major step had been taken toward the implementation of career education in the nation's schools.

The Committee had no recommendations concerning this question, although the discussions relative to the following questions also relate in part to this question.
Question 2. What problems and experiences can be identified in the pilot testing which should be considered in the development and testing of the Exploration Guide?

Since public service occupations career programs are now being implemented nationwide, perhaps the key component to the success of the programs may well be articulation. All of the participants at the conference expressed the hope that educational programs will move away from separate entities and become more interdisciplinary in the future. College instructors, secondary educators, and elementary education personnel will have to work cooperatively rather than each segment working in a vacuum.

Not only must teachers and administrators be aware of programs that cross subject areas within schools, but they must articulate with industry and the communities they serve as well.

Educators must take positive steps to insure that articulation takes place on a national level. Organizations such as the State Department of Education need to be utilized as vehicles to avoid duplication of effort. The Curriculum Laboratory was viewed as a positive step in the right direction. It appears that disadvantaged students who have been a part of the pilot testing have had special problems. Many disadvantaged students react negatively to programs that involve academic skills, and are reluctant to participate in work experience programs in which they will not receive financial benefits. However, attitudes toward the public service program were favorable, as evidenced by the significantly higher attendance rate and the comments made by disadvantaged students in the program. A suggestion was made that pilot testing using criterion measures may not be practical with disadvantaged persons.
Recommendations of the Committee were:

1. The proposed Public Service Occupations Curriculum Project Exploration Guide should be flexible enough to be easily adapted into existing programs.

2. The project staff may wish to become more involved in articulation, perhaps discussing articulation problems with teachers and administrators in order to develop articulation materials.

3. The project staff may wish to explore means other than criterion-referenced testing for measuring individuals who are disadvantaged.

4. The advisory committees at each site should include representatives from the community college level.
Question 3. **What should the Exploratory Phase of our work look like, and should the units of instruction look like the model presented?**

Since career exploration activities at the junior high school level are sporadic and unorganized, the future design of career education materials is hard to predict. However, the group felt that the project staff should not wait until the future arrives to develop appropriate materials for the junior high school level. Many of the activities should be in the affective domain, using simulation and role-playing activities to provide opportunities for students to grow in self-awareness.

The materials developed should provide students with an opportunity to do things on their own. The design should be consistent with what is going on at the junior high school level. The Committee felt that keying the curriculum to basic subjects was fundamentally sound. Care must be exercised, however, not to introduce concepts and activities that have already been introduced at a lower level. The list of resources should include free and inexpensive materials.
Recommendations of the Committee were:

5. The unit approach should be used, with each unit keyed to the four basic subjects in junior high school.

6. Materials in the Exploration Guide should contain some degree of "hands-on" activities, and should be consistent with sound learning theory for this age level.

7. The Exploration Guide should contain some degree of "hands-on" activities, and should be consistent with sound learning theory for this age level.

8. The Exploration Guide should include a variety of activities, including simulation and role-playing activities.

9. The Exploration Guide should not be highly structured, but rather should give teachers ideas to use in the classroom.

10. As junior high school students will be exploring many occupational groups, a public service Exploratory Guide (not more than 300 pages) would be desirable.
Question 4. What concepts, or information should be included in the Implementation Guide? Should articulation be handled separately?

The Implementation Guide should be easily understood by teachers, administrators, and other school personnel. All staff members, including school-board members, should know the roles they play in the public service program. A suggestion was made to include a series of case studies to show how the program can be implemented.

The Committee felt it might be wise to define public service occupations and to show the relationship of the public service occupational cluster to career education.

Since articulation is a major component to the success of career education, one section of the Implementation Guide should be concerned with public service articulation. The Committee explored the possibility of listing movement beyond the high school level, showing all the options students would have upon graduation. The guide might reflect what the Community Colleges are doing, and could list public service organizations and associations, such as the American Society for Public Administration. It was suggested that the Implementation Guide deal with guidelines on how to effectively utilize community resources, and suggested ways of planning and organizing the public service curriculum.

Recommendations of the Committee were:

11. The articulation component should become a part of the Implementation Guide.

12. The Implementation Guide should include suggestions for planning and organizing a public service occupations career education program.
Question 5. What form should the final package of Public Service Occupations Curriculum Project guides take?

Due to the numerous items that are a part of the project, the group agreed that it would be advantageous to enclose the materials in an attractive container, thereby facilitating its usage.

The group felt that the latest advances in media and technology could be utilized easily with the curriculum materials that have been developed.

Recommendations of the Committee were:

13. The public service occupations curriculum materials should be packaged in an attractive container that would facilitate keeping all the materials in one location.

14. Due to the complexities of the many components developed, an overview of the public service project, possibly a slide-tape presentation, should be prepared to help educators gain an understanding of the program.
Question 6. **What methods of dissemination should be emphasized to maximize the impact of the Public Service Occupations Curriculum Project on the educational community?**

The group felt that the U. S. Office of Education should play the major role in the dissemination of the project materials. It was suggested that a series of workshops in each of the U. S. Office of Education districts introducing the materials would be of value. Institutions that are responsible for teacher training should be made aware of the materials.

**Recommendations of the Committee were:**

15. The U. S. Office of Education should institute clear and decisive actions to ensure the effective dissemination of the materials from this cluster and other clusters being developed.

16. The U. S. Office of Education should further the dissemination of these materials by presenting them in workshops in its regions.

17. The Public Service Occupations Curriculum Project staff should institute some interim mechanism whereby materials (even in the draft or untested state) would be available to the general public.