Second-year evaluation of the career education projects at Saint Paul and Minneapolis from October 1975 through June 1976 was conducted in three phases: Management activities, curriculum development/inservice workshops, and student outcomes. Findings indicated evidences of community involvement, staff development through inservice activities, cost effectiveness, infusion of career education into the general curriculum, and student growth in career awareness and maturity. However, more time is needed at both sites for planning and inservice programs. The report presents project background, major activities and accomplishments, and evaluations of the two sites. Results of teacher and student surveys and some project materials are included. (MF)
Third Party Evaluation of
The Saint Paul-Minneapolis
Career Education Project

Exemplary Project in Vocational Education,
Conducted Under

Part D of Public Law 90-576

The project reported herein was performed pursuant to a grant from the Office of Education, U.S. Department of Health, Education and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgement in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent official Office of Education position or policy, nor that of either the Saint Paul or Minneapolis Public Schools.

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June 30, 1976
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I. ABSTRACT OF THE REPORT

This Abstract of the Report has been prepared to provide a brief summary of the Third-Party Evaluation of the Saint Paul-Minneapolis Career Education Project. Included are sections which discuss the major objectives of the Project (provided by both Saint Paul and Minneapolis), Evaluation Objectives, and Methodology, as well as Major Findings and Recommendations. These sections relate to the (combined) Saint Paul-Minneapolis Career Education Project as well as the Project activities at the two project sites, i.e., Saint Paul and Minneapolis.

1.1 MAJOR PROJECT OBJECTIVES

Major objectives of the Saint Paul Career Education Project have been stated as follows:

1) To begin to write instructional units infused with career education;
2) To field test career-oriented instructional units;
3) To distribute field-tested units;
4) To plan for two Career-oriented Secondary Schools;
5) To develop a K-12 Career Education Model in the Gemini cluster; and
6) To establish a close working relationship with the Minneapolis Career Education Staff.

Major objectives of the Minneapolis Career Education Project have been stated as follows:

1) To establish a framework for the infusion of career development into the existing K-12 curriculum;
2) To establish a career guidance program designed to complement the curriculum in developing in each student positive attitudes about the world of work and assisting the student in developing career decision-making skills;
3) To provide teachers, both elementary and secondary, with inservice time to prepare them to implement into their own classrooms career education techniques, concepts, and materials;
4) To train a cadre of teachers and counselors who will assist a continued inservice training of other teachers and counselors in the district;

5) To provide teachers and students with current and comprehensive information regarding careers, life-styles, and career opportunities;

6) To facilitate cooperation between schools, community, and manpower agencies in providing a career-oriented program for students;

7) To facilitate cooperation between teachers, counselors, and administrators in providing a career-oriented program for students; and

8) To identify and adapt curriculum materials which fit the career development curriculum framework.

1.2 EVALUATION OBJECTIVES AND METHODOLOGY

Objectives of the Third-Party Evaluation are three-fold:

1) To determine the extent to which the objectives of the project have been accomplished;

2) To determine what factors either enabled or prejudiced the accomplishment of these objectives; and

3) To promote the inclusion of the successful aspects of the project into other ongoing projects.

The evaluation has been conducted in three components or phases: 1) The Management Component; 2) The Curriculum Development/Inservice Component; and, 3) the Student Component.

1.3 PROGRESS ON MAJOR PROJECT OBJECTIVES

In Saint Paul, progress has been made on Major Project Objectives 1, 2, and 3. Major Project Objective 4 has been completed. Efforts are continuing with Objective 5, and good progress has been achieved with Major Objective 6.

In Minneapolis, good progress has been made on Major Project Objectives 1-8 in the West Area, and district-wide, thrusts involving these major objectives are anticipated wherever feasible.
1.4 OTHER MAJOR FINDINGS AND RECOMMENDATIONS.

Following are brief summary statements of the Findings/Recommendations Section of the report:

- Student outcomes measures have served to document growth in career awareness, exploration, and career maturity, as well as positive attitudes toward the world of work.

- Assistance and encouragement has been received from DHEW/USOE, the Minnesota Department of Education, as well as the Saint Paul and Minneapolis Research and Evaluation Departments.

- A significant amount of community involvement has been observed at both Project sites, with specific student target groups being served.

- Growth and staff development in Career Education has been evident with a considerable number of inservice activities having been conducted.

- The project shows evidence of cost-effectiveness.

- A significant amount of planning/articulation between Saint Paul and Minneapolis has been evidenced, and cooperative activities have been extended to the private/parochial schools in the Twin Cities Metropolitan Area.

- More time is needed for Career Education planning and inservicing activities at both sites.

- Plans for future thrusts in Career Education and the place of Career Education in both the Saint Paul and Minneapolis Schools need to be made during the 1976-77 year of the Project. Decisions on administrative structures, local funding, and direction for Career Education must be made in both Saint Paul and Minneapolis in the year ahead.
II. PROJECT BACKGROUND

This section of the report provides project background. Included are discussions of the problem background, goals/objectives of the project, time period covered, previous reporting, and project procedures. A final subsection provides an overview of the remainder of the report.

2.1 PROBLEM BACKGROUND

The Saint Paul Public Schools was awarded a grant from the U.S. Office of Education in summer of 1974 to conduct an Exemplary Project in Vocational Education. The grant, initially planned as a three-year project, is renegotiated annually; and its continuation depends on the availability of funds under Section 442 (c) of Part D, Vocational Education Amendments of 1968, P.L. 90-576, and on the extent to which the grantee agency is experiencing success in achieving the objectives of the project. The Rules and Regulations establishing the legal requirements under which the project will be operated read:

"Each program or project proposal shall include an evaluation plan to be carried out by a third party for the purpose of evaluating the effectiveness of the program or project. Such a plan shall describe the steps by which the grantee will

(1) Determine the extent to which the objectives of the program or project have been accomplished;

(2) Determine what factors either enabled or precluded the accomplishment of these objectives; and

(3) Promote the inclusion of the successful aspects of the program or project into vocational education programs supported with funds other than those provided under the grant." (Section 103.24(d), F.R. Vol 49, No. 159)

Accordingly, the Saint Paul Public Schools have requested that Educational Management Services, Inc. (EMS) perform a third-party objective evaluation during the second year of project operation.

2.2 GOALS AND OBJECTIVES OF THE PROJECT

The major goals of this Third-Party evaluation project are to provide documentation in several areas of the operation of the
The objectives of the third-party evaluation were developed in the context of this exemplary project and the U.S.O.E. document, Draft Guidelines for the Evaluation of Career Education Programs, dated August 15, 1974. They are three-fold:

1) To determine the extent to which the objectives of the Project have been accomplished;

2) To determine what factors, either enabled or precluded the accomplishment of these objectives; and

3) To promote the inclusion of the successful aspects of the project into other ongoing projects.

2.3 TIME PERIOD COVERED


2.4 PREVIOUS REPORTING

Prior to this report, the Saint Paul-Minneapolis Career Education Project has received three evaluation reports. The first report, titled, "First Year Report for the St. Paul-Minneapolis Career Education Project," dated September 1975, was provided by a previous third-party evaluator who served the project during its first year, 1974-75. Included were four major sections:

Introduction
Conclusions, Recommendations and Summary of Results
Evaluation Design Summary
Evaluation Results

Educational Management Services, Inc. (EMS) has provided two previous evaluation reports since the commencing of its association with the Project as Third-Party Evaluator in Fall, 1975. These are 1) "Implementation Report," dated December 31, 1975, and "Interim Report," dated March 31, 1976. Each of these reports covered the following topics:

Period Covered
Major Activities and Accomplishments During this Period
Significant Findings and Events
Problems
Data Collection
Progress on Evaluation Plans and Procedures

Staff Utilization

Future Activities Planned for the Next Reporting Period

The current report serves as an evaluation summary for the Projects' second year of operation (1975-76.)

2.5 PROJECT PROCEDURES

Overviews of the Project were prepared by both the Saint Paul and Minneapolis Career Education Project Personnel during Fall, 1974, in accordance with the requirements outlined in Chapter III of the document, Draft Guidelines for the Evaluation of Career Education Programs (August 15, 1974.) Summary portions of the overviews pertaining to the second year's evaluation are included as Exhibits at the end of this Report. In addition both Saint Paul and Minneapolis have prepared outlines of the project's evaluation needs for 1975-76, and these outlines are also included as Exhibits supplementary to this report.

The major steps of the Third-Party Evaluation Process follow and have been developed according to those suggested in the document, Draft Guidelines for the Evaluation of Career Education Programs, August 15, 1974:

1) Prepare Program Overviews (Completed by Project Directors;)
2) Formulate Evaluation Questions;
3) Specify Design;
4) Specify Data Sources;
5) Select or Develop Instruments;
6) Prepare Data Analysis Plan;
7) Prepare Data Collection Plan;
8) Finalize Design and Prepare Reporting Plan;
9) Implement Data Collection Plan;
10) Analyze Data; and

The evaluation plan was designed to provide a comprehensive yet flexible evaluation of the Saint Paul-Minneapolis Career Education Project. A general design was specified to be applied to both Minneapolis and Saint Paul, as outlined in the project proposal. However, the two school districts vary somewhat, in terms of their
respective activities which are related to career education. Thus, the general design was individualized for both Minneapolis and Saint Paul.

The following aspects of the project's management processes and accomplishments were monitored for both Saint Paul and Minneapolis:

- **Community Involvement** - Usage of concerned groups to facilitate access to community resources.
- **Technical Assistance** - Providing resources used in the project's implementation.
- **Target Group** - Identification of the student population being served.
- **Management System** - Used to coordinate project activities.
- **Staff Development** - Types of inservice activities which have been or are being conducted and methods by which teachers are motivated.
- **Cost Effectiveness** - Analysis of the results obtained in relation to the resources consumed.
- **Articulation** - Among and between levels of education, K-12.

The Management Component was designed to answer the following Saint Paul-Minneapolis project evaluation needs, outlined in the Exhibits section of this report:

**Saint Paul:**

**Gemini Thrust**

- **Community Resources**
  Was there increased staff awareness of community resources available through the Career Education Department?
  
  To what extent did staff in the Gemini cluster utilize Community Resource services?

**District Thrust**

- **Curriculum**
  Was attention given to needs of minorities and women as related to Career Education materials and programs?
  
  Were inservice workshops provided to enable teachers to open communication with large and small businesses?

- **Community Resources**
  Was there initial and recurring contact with community and business organizations?
The general design provided a format from which to specify, in greater detail, the particular tasks for each school district, per the proposal objectives and timelines. The work of the evaluation was proposed in three components or phases: 1) The Management Component; 2) The Curriculum Development/Inservice Component; and, 3) The Student Component.

The remainder of this section serves to outline the three evaluation components, including work activities to accomplish the objectives of each evaluation component. Likewise, the (related) project evaluation needs outlined in detail in the Exhibits for both Saint Paul and Minneapolis, are listed in the context of each of the appropriate evaluation components.

2.5.1 The Management Component

The evaluation plan was designed not only to monitor but to assist with technical expertise in dimensionalizing program objectives along specified timelines for the second year's operation.

Activity: Dimensionalize Goals/Objectives

This evaluation activity provided technical assistance for the implementation of project plans and dimensionalization of objectives.

Activity: Monitor Project Plan

During the course of the project, EMS used a goal and objective statement that evolved from the previous evaluation activity to monitor project activities throughout the operation of the project in both districts. The evaluation focused on both procedures utilized and timelines specified.

Minneapolis:

Evaluation Question No. 5: To what extent did workshop participants engage in career education activities after the workshop (classroom, curriculum development, community contracts?)

Evaluation Question No. 8: Did the project staff make contracts with community and business organizations?

2.5.2 The Curriculum Development/Inservice Component

A major portion of the project activities during the second year continued to be in-service sessions with teachers and administrators of the school districts. These were conducted in a variety of pilot locations in both districts.
Activity: Dimensionalize Curriculum/Inservice Objectives

This activity consisted of extracting from the project proposal those objectives which were designed to be completed during the project's second year of operation. This year's evaluation activities have resulted in baseline data having been established for staff/inservice activities.

Activity: Assess Attainment of Curriculum/Inservice Objectives

The Curriculum/Inservice Component has served to answer the following Saint Paul-Minneapolis project evaluation needs, outlined in the Exhibits:

Saint Paul:

Gemini Thrust

Media
Was career-oriented media developed for primary, intermediate, junior high, and high school as a result of career education support services?

Curriculum
Was a coordinated curriculum program developed and implemented?

Were appropriate career education instructional materials for each level developed by Gemini staff with assistance of the Career Education staff?

Were teachers in the target cluster involved in inservice workshops and other orientation to Career Education strategies and concepts?

Did the staff make itself and resource materials readily accessible to teachers in Gemini?

District Thrust

Curriculum
To what extent were teacher developed materials utilized by staff in the district?

Minneapolis:

Evaluation Question No. 1: Were inservice workshops in career education held for Minneapolis administrators, counselors, and elementary and secondary teachers?

Evaluation Question No. 2: How did the participants in the inservice workshops react to the conduct, content, and activities of the workshops?
Evaluation Question No. 3: Did the workshop participants show increased knowledge and understanding of concepts related to career education?

Evaluation Question No. 4: Did the workshop participants show improved attitudes toward career education?

Evaluation Question No. 5: What other inservice activities were conducted or coordinated by the Minneapolis Public School career education project?

Evaluation Question No. 6: To what extent was the Career Education Resource Center in the Project Office used by Minneapolis staff and students, and how useful was the Resource Center to the users?

2.5.3 The Student Component

The Student Component was proposed as the most important of the three project work components. It has sought to document how students who participated in career education activities showed improved knowledge, awareness, and attitudes regarding career education. Involved were the documentation of evidence relating to measures of career motivation, orientation, exploration, and guidance, in both Saint Paul and Minneapolis. During this second year of the project, major activities related to continuing to establish a firm baseline from which future student evaluation activities will proceed.

**Activity:** Assist with Clarification of cognitive and affective objectives relating to student outcomes, and identify appropriate measures

This activity was accomplished in cooperation with the Saint Paul and Minneapolis Career Education Project personnel. The Draft: Summary of Results, Career Education Instrument Review Conducted for U.S. Office of Education, September 5, 1975, provided guidelines for instrument selection. Utilization of parts of the Career Maturity Inventory (CMI) and the Career Education Survey were proposed, to link second year survey results with first year evaluation activities.

**Activity:** Administer measurements, including training of teachers who will administer tests

The size and grade levels of the sub-populations of students were determined in concert with the Saint Paul and Minneapolis project staffs.

**Activity:** Analyze Survey Data

Analysis results include identification and profiles of target and control groups in both Saint Paul and Minneapolis.
Where appropriate, first-year results have been compared with those obtained during the second year's evaluation activities.

The Student Component has served to answer the following evaluation question, as outlined in the Exhibits:

**Evaluation Question No. 9:** Did the students who participated in intensive classroom activities show improved knowledge, awareness, and attitudes regarding career education?

### 2.6 OVERVIEW OF THE REPORT

The remainder of the report discusses accomplishments of the third-party evaluation project, including conclusions and recommendations. The next chapter discusses major activities, results and accomplishments, for the Saint Paul-Minneapolis combined project and for each of the project sites in Saint Paul and Minneapolis. Likewise, evaluation of the project is discussed in Chapter IV, followed by conclusions and recommendations in Chapter V. Exhibits pertaining to both the combined project, as well as each of the project sites, are filed supplement to this report.
III. MAJOR ACTIVITIES, RESULTS AND ACCOMPLISHMENTS

This Chapter of the report discusses major activities, results and accomplishments of the Saint Paul-Minneapolis Career Education Project Third-Party Evaluation during the period October, 1975 through June, 1976. Included are sections relating to the Saint Paul-Minneapolis (combined) project as well as to each of the Project Sites, at Saint Paul and Minneapolis, for each of the three quarters (October 1975-June, 1976.)

3.1 SAINT PAUL-MINNEAPOLIS PROJECT

During the period October-December, 1975, the following major activities and accomplishments were performed:

- Following an initial contact with the Administrator, Instructional Research and Evaluation, Saint Paul Public Schools, on September 11, 1975, EMS met on October 6, 1975, with The Administrator, Instructional Research and Evaluation, and with the Director, Career Education. Provided was an orientation to the preparation of a Proposed Contract, Work Statement and Related Exhibits pertaining to a Third-Party Evaluation for the Saint Paul-Minneapolis Career Education Project.

- In early October, 1975 EMS reviewed the project materials available from its 1974-75 project operation. These included all available interim reports and evaluation summaries and reports. The September 30, 1975 Report, which accounted for project activities during the period July 1-September 30, was reviewed in some detail.


- EMS met with The Administrator, Instructional Research and Evaluation, on October 21, 1975, at which time a Proposed Contract, Work Statement and Related Exhibits pertaining to a Third-Party Evaluation for the Saint Paul-Minneapolis Career Education Project, was transmitted. The Proposed Evaluation included three evaluation components with their associated activities. Briefly these were:

1. The Management Component

   1.1 Dimensionalize goals/objectives
   1.2 Monitor project plan
2. The Curriculum Development/Inservice Component

2.1 Dimensionalize curriculum/inservice objectives
2.2 Develop instrumentation in interview/questionnaire formats to assess inservice objectives
2.3 Assess attainment of the curriculum/inservice objectives

3. The Student Component

3.1 Assist with clarification of cognitive and affective objectives relating to student outcomes, and identify appropriate measures
3.2 Administer survey measurements
3.3 Score surveys and analyze survey data

EMS met again with the Administrator, Instructional Research and Evaluation, and the Director, Career Education on November 13, 1975, for the purpose of revising provisions in the Proposed Contract, after which the Board of Education, Saint Paul Schools, acted favorably on the proposed contract on November 18, 1975.

During the period November 24-26, 1975, EMS accompanied the visit of the Program Officer from the U.S. Office of Education, Region V office, Chicago. Included were meetings and conferences with a number of components of the Career Education projects in both Saint Paul and Minneapolis. These included meetings at 360 Colborne, The Victoria Resource Center, and site visitations to the Elementary Career Facility - University Avenue and the Career Resource Center - Mechanic Arts, all in Saint Paul. In Minneapolis, conferences were held at the Educational Service Center, at the Harrison School, at West High School, at the Career Resource Office for the Project, in the Fulton School, and with personnel from the Office of the West Area Superintendent.

During December, 1975, EMS has reviewed all available materials and completed evaluation materials relating to both the Saint Paul and Minneapolis components of the Project. Preparations were also made for a January 5, 1976 conference with the Saint Paul Career Education Staff at the Victoria Resource Center.

EMS completed an Evaluation Plan Summary Chart and it is included in Exhibit 6.1 (filed supplement to this report.) Evaluation purposes/goals and needs for the Saint Paul and Minneapolis components are provided in Exhibits 6.2 and 6.3 respectively.

During the period January-March, 1976, the following major activities and accomplishments were performed:
During January, EMS reviewed the Quarterly Report dated December 31, 1975 and prepared for the Saint Paul-Minneapolis Exemplary Career Education Project, for the period October 1, 1975 - December 31, 1975.

On January 26, EMS met with the Minneapolis and Saint Paul Career Education Project Staff at the Fulton Resource Center to discuss additional evaluation approaches and to schedule evaluation activities, as well as to discuss joint activities associated with the combined Saint Paul - Minneapolis Career Education Project.

During the period February 8-10, EMS attended the Second Career Education forum, in Washington, D.C., also attended by a staff member from both Saint Paul Public Schools and Minneapolis Public Schools.

On March 5, EMS, along with the Saint Paul and Minneapolis project directors, conferred with Midwest office representatives of CTB-McGraw-Hill, relating to use of the Career Maturity Inventory (CMT) in the secondary sectors of both Saint Paul and Minneapolis.

On March 16, EMS convened a meeting of the Administrator, Instructional Research and Evaluation, and the Saint Paul and Minneapolis Career Education Project Directors, for purposes of coordinated planning for a total evaluation effort at the two project sites.

During the period April-June, 1976, the following major activities and accomplishments were performed:

During the period May 6-7, 1976, EMS participated in the site review visit of the Program Officer from the U.S. Office of Education, Region V Office, Chicago, and the Demonstration Branch Chief, Bureau of Occupational and Adult Education, DHEW/USOE, Washington, D.C. Included were major EMS presentations, at each of the project sites, including preliminary observations on the Saint Paul-Minneapolis Career Education Project, as well as project operations at both the Saint Paul and Minneapolis sites.

On May 26, 1976, EMS met with a Saint Paul - Minneapolis joint meeting of Career Education Advisory Committees, during which EMS presented the major agenda item, a progress report on the combined project and career education activities and evaluation findings at each of the project sites.

During June, 1976, EMS has prepared the Final Report, for the 1975-76 year, relating to the Saint Paul-Minneapolis Career Education Project, an Exemplary Project in Vocational Education, conducted under Part D of Public Law 90-576.
3.2 SAINT PAUL PROJECT SITE

During the period October-December, 1975, the following major activities and accomplishments were performed:

- On December 9, 1975, EMS met with the Administrator, Instructional Research and Evaluation, and with personnel in Career Education, Saint Paul Schools, for the purpose of planning of evaluation activities for the Saint Paul component of the Project.

During the period January-March, 1976, the following major activities and accomplishments were performed:

- On January 7, EMS met with the Saint Paul Career Education Project Staff to explore approaches to evaluation activities and to review the purposes and goals of the project, the evaluation plan summary chart, and the evaluation needs.

- On January 29, EMS met with the Administrator, Instructional Research and Evaluation and the Career Education Project Director to discuss city-wide administration of career education evaluation instrumentation.

- On March 16, EMS participated in the Career Education Fair at the West Side Boys and Girls Club, Saint Paul.

- On March 30, EMS conferred with members of the Saint Paul Career Education Project Staff, relating to specific evaluation activities associated with the Career Education Resource Center, Victoria School.

Among evaluation instruments which were administered as part of the Curriculum Development/Inservice Component were the Saint Paul Schools Career Education Resource Center Questionnaire: Career Education Services.

Among the evaluation instruments which were administered as part of the Student Component was the Career Maturity Inventory (CMI).

During the period April-June, 1976, the following major activities and accomplishments were performed:

- On April 9 and 19, EMS met with the Career Education Staff for the further planning and performance of evaluation activities.

- On April 26, EMS performed interviews with teachers at the Career Learning Centers, including those in secondary schools, as well as community resource personnel who cooperate with the Saint Paul Career Education Project.
On April 29, EMS met with the Career Education Advisory Committee related to Gemini Cluster Career education activities.

On June 15, EMS met with personnel in the office of the Administrator, Instructional Research and Evaluation, relating to district wide survey results.

### 3.3 Minneapolis Project Site

During the period October-December, 1975, the following major activities and accomplishments were performed:

- On December 11, EMS met with the Project Administrator and Career Specialist of the Minneapolis component of the Project for purposes of obtaining a detailed orientation to the Minneapolis Project.

During the period January-March, 1976, the following major activities and accomplishments were performed:

- During January, EMS was invited to join the Minneapolis Career Education Advisory Committee, an invitation which was accepted.

- February 4, EMS made a presentation to the Minneapolis Career Education Advisory Committee relating to evaluation activities during the 1974-75 year and early in the 1975-76 year, (both of which periods pre-dated the involvement of EMS as Third-Party Evaluator.)

- On February 13, EMS met with the Minneapolis Career Education Project Staff and with Minneapolis Public Schools, Research and Evaluation, relating to evaluation instrumentation for use with students (elementary and secondary) and with staff. Included were considerations of evaluation activity scheduling and sample size.

- Among the evaluation instruments which were administered as part of the Curriculum Development/Inservice Component were the Career Education Teacher Survey.

- Among the evaluation instruments which were administered as part of the Student Component were the Career Maturity Inventory (CMI) and the Career Education Student Survey.

During the period April-June, 1976, the following major activities and accomplishments were performed:

- On April 5, EMS met with the Project Administrator and Career Specialist for purposes of obtaining both staff and student data relating to the Minneapolis Site Evaluation.
On April 8, EMS met with the Minneapolis Career Education Advisory Committee.

On April 9, EMS and the Minneapolis Project Administrator met with guidance and teaching personnel at two senior high schools to arrange for administration of the Career Maturity Inventory (CMI) during the post-spring vacation period.

On May 17, EMS met with the Minneapolis Career Education Staff for the purposes of additional data collection.

On June 23, EMS met with the Minneapolis Career Education Staff to procure additional evaluation data, including staff activities and materials logs which were maintained during the 1975-76 project operation.

This third-party evaluation project has required a great deal of process activity in this first year of EMS participation with the project. Involved are two separate school districts (Minnesota's two largest), as well as the Saint Paul-Minneapolis (combined) project itself. Totally, three offices in Saint Paul and two offices in Minneapolis have interests and concerns with the project. In addition, two advisory committees are involved. A major amount of coordination necessitated project time expenditure on the part of the Third-Party Evaluator, a requirement which may likely be lessened in a second year of involvement. Evaluation activities/coordination have contributed to Saint Paul-Minneapolis cooperation during 1975-76. Evaluation of project outcomes is discussed in Chapter IV, Evaluation of the Project.
IV. EVALUATION OF THE PROJECT

This chapter of the report discusses the Third-Party Evaluation activities relating to the Saint Paul-Minneapolis Career Education Project. Included are three major sections, relating to:

(4.1) The (combined) Saint Paul-Minneapolis Career Education Project;

(4.2) The Saint Paul Career Education Project; and

(4.3) The Minneapolis Career Education Project.

For each of the foregoing aspects of the total project, the evaluation objectives, methodologies, and major findings are presented. Conclusions and recommendations, based upon these evaluation activities, are discussed in Chapter V.

4.1 SAINT PAUL-MINNEAPOLIS CAREER EDUCATION PROJECT

4.1.1 Evaluation Objectives and Plan

As stated in Chapter II, the objectives of this Third-Party Evaluation were:

1) To determine the extent to which the objectives of the project (and its components) have been accomplished;

2) To determine what factors, either enabled or precluded, the accomplishment of these objectives; and

3) To promote the inclusion of the successful aspects of the project (and its components) into programs supported with funds other than those provided by the grant.

The evaluation plan was designed to provide a comprehensive, yet flexible, evaluation of the Saint Paul-Minneapolis Career Education Project. A general design was specified and applied to both Minneapolis and Saint Paul, as outlined in the project proposal. However, the two school districts vary considerably, in terms of their respective activities which relate to career education. Thus, the general design was individualized for both Minneapolis and Saint Paul. The general design provided a format from which to specify, in greater detail, the particular tasks for each school district, per the proposal objectives and timelines. The work of the evaluation was proposed and conducted in three components or phases: 1) The
Management Component; 2) The Curriculum Development/Inservice Component; and 3) The Student Component.

The major steps of the Third-Party Evaluation Process follow, and were developed avoiding those suggested in the document, Draft Guidelines for the Evaluation of Career Education Programs, dated August 15, 1974:

1) Prepare Program Overviews (Completed by Project Staffs);
2) Formulate Evaluation Questions and Prepare Evaluation Needs Statement;
3) Specify design;
4) Specify Data Sources;
5) Select or Develop Instruments;
6) Prepare Sampling Plan;
7) Prepare Data Analysis Plan;
8) Prepare Data Collection Plan;
9) Finalize Design and Prepare Reporting Plan;
10) Implement Data Collection Plan;
11) Analyze Data; and
12) Report Findings.

The major sources of evaluation data utilized in this project relating to the (combined) Project as well as the Saint Paul and Minneapolis sites, included:

- Background materials, including Project Proposal(s);
- Student measures, both cognitive and affective;
- Staff measures to determine both knowledge of and attitudes toward career education;
- Surveys/logs/other records to determine staff utilization of Career Education Project Personnel and Materials;
- Interviews with Staff, including teachers and administrators, and community resource persons;
- Other existing data relating to career education implementation in both Saint Paul and Minneapolis; and
- Monitoring of operational aspects of the (combined) project.
4.1.2 Major Findings

The major findings reported in this section relate to the (combined) Saint Paul-Minneapolis Career Education Project. In particular, those findings generated as a result of the Management Component of the Evaluation Plan are discussed, since the (combined) Saint Paul-Minneapolis Career Education Project was evaluated in terms of its management aspects only. The two project site components, (at Saint Paul and Minneapolis) were evaluated in the context of all three of the Evaluation Plan Components (i.e., Management, Curriculum Development/In-service and Student.) See Exhibit 6.1.1 which includes the Evaluation Plan Summary Chart. Sections 4.2 and 4.3 serve to report these findings for each project site. Following are the major findings related to the (combined) project:

Saint Paul-Minneapolis Cooperation

The Saint Paul-Minneapolis Career Education Project has fostered a number of cooperative relationships between the two largest school districts in the State of Minnesota. Evidence of cooperative relationships have been found in a number of activities, including:

1) Exchange of career education modules and other materials;
2) Joint Staff Conferences;
3) Joint Advisory Committee meeting;
4) Conduct of workshops in the Saint Paul-Minneapolis communities and in neighboring public and private schools;
5) Summer seminars;
6) Joint use of evaluation instruments;
7) Plans for a metropolitan area career education "swap shop;"
8) Joint participation in the Career Education Forum, February 8-10, in Washington, D.C.

Assistance to Private Schools

The Saint Paul-Minneapolis Career Education Project has established a liaison with private schools in the area, including parochial schools in the Saint Paul-Minneapolis Archdiocese.

Community Involvement

There is evidence of the utilization of concerned community groups to facilitate access to community resources. Both the Saint Paul and Minneapolis Components have developed liaisons
with their area Chambers of Commerce, as well as with other groups in labor, commerce and industry;

**Technical Assistance Utilized**

Both project components have sought and benefitted from technical assistance provided by a number of agencies, including their Research and Evaluation Departments, OHEW/USOE, (both Region V and Washington, D.C. Offices); the Minnesota Department of Education (Vocational-Technical Division and the Career Education Coordinator, Instruction Division), the University of Minnesota, and the Third-Party Evaluator.

**Target Group Served**

Both the Saint Paul and Minneapolis components of the Project have identified target groups of their school district student populations to be served; including the West Area of Minneapolis Public Schools and the Gemini Cluster of Saint Paul Public Schools;

**Management System Established**

The (combined) project, as well as its Saint Paul and Minneapolis Components, have developed management system(s) to coordinate the planning, implementation, and reporting of project activities and project spending plans.

**Staff Development**

Both components of the Project have been involved in a variety of inservice activities; which have been designed to inform and to motivate teachers and other staff in the process of infusing career education concepts with ongoing curricular activities.

**Cost Effectiveness**

Evidence of cost effectiveness have been found in the operation of both the Saint Paul and Minneapolis Components reported in the next sections of this report. Mention is made of the following examples:

- Utilization of (voluntary) Advisory Committees,
- Use of community resource persons;
- Use of aides at resource centers, including C.E.T.A. paid aides;
- Utilization of existing personnel who go directly to teachers, students, and librarians (non-use of "add-on" personnel).
Articulation

In both school districts, evidence was found of articulation/cooperation between and among levels of education, K-12. The organization, function and location of Career Education Project Staffs has largely contributed to this outcome. In addition, both the Saint Paul and Minneapolis Components of the Project have related well to their Departments of Instruction, to Vocational/Technical and Industrial Education, to Guidance/Counseling Services, and to Special Needs Education, within their respective school systems. There appears to be no schism between career education and vocational education in Minnesota's Twin Cities.

Advisory Structures

Both of the Twin City Components have established advisory structures for purposes of project planning, implementation and evaluation. Each of the Advisory Committees has been consistently active and instrumental in assisting project personnel. A joint Saint Paul-Minneapolis Career and Vocational Education Advisory Committee session was held on May 26, 1976, at 360 Colborne, Saint Paul. The agenda for this meeting is found in Exhibit 6.1.2.

4.2 SAINT PAUL CAREER EDUCATION PROJECT

4.2.1 Evaluation Objectives and Plan

The evaluation objectives and plan discussed in section 4.1.1 was applied to evaluation activities related to the Saint Paul Component of the Project. During the 1974-75 year (the first year of the project's operation), student outcomes baseline data were established system-wide as a result of leadership on the part of the Administrator, Instructional Research and Evaluation. These data collection and analysis efforts were continued during the 1975-76 year, and staff baseline data collection, relating to the Curriculum Development/Inservice Component of the Evaluation Plan was established.

4.2.2 Major Findings: Management Component

A number of major findings relating to the Management Component of the Saint Paul Career Education Project are found in Section 4.1.2. In addition, the following findings may be summarized for the Saint Paul Project:

Access to Community Resources

The Saint Paul Career Education Project is an outstanding example of seeking of acceptance and support from key community groups, representing commerce, labor and industry, including the capability to orient and train community resource people to
insure understandings of their role with respect to the program's educational objectives.

Service to Targeted Groups

The Saint Paul Career Education Project has exerted leadership regarding roles of minorities and women in the implementation of career education strategies. Demonstration project applications have sought to eliminate and avoid sex bias and sex role stereotyping.

Staffing Capabilities

The Saint Paul Component exhibits staffing capabilities with a number of areas of expertise and a good deal of imagination in approaches to the planning and implementation of career education thrusts.

Servicing Schools System-Wide

The Saint Paul Staff had developed a district-wide thrust in approaching Career Education strategies, including the establishment of career education centers, in the various schools, which are serviced by the Career Education Resource Center at the Victoria School.

Utilization of High School Follow-up

Saint Paul Public Schools has been successfully utilizing the High School Follow-Up Questionnaire, developed by the Minnesota Research Coordinating Unit for Vocational Education, Department of Vocational and Technical Education, University of Minnesota. This system is assisting Saint Paul Public Schools in local assessment procedures regarding the status of former high school students, including employment activities. Minneapolis Public Schools is also considering the use of this management tool, which has great potential for use in the planning and development of career education thrusts.

4.2.3 Major Findings: Curriculum Development/Inservice Component

A number of Curriculum Development/Inservice Component Findings may be summarized for the Saint Paul Career Education Project, including those related to seminar/workshop evaluations, the utilization of Career Education Resource Center Services, and special projects at the Career Development Center.
"The Woman in the Gray Flannel Suit" Seminar

During Summer, 1975, the Saint Paul Career Education staff conducted an inservice activity entitled, "The Woman in the Gray Flannel Suit". In February, 1976, a follow-up questionnaire was sent to a number of the seminar participants. A copy of the questionnaire and its major responses may be found as Exhibit 6.2.3. Of those who responded to the questionnaire, 100 percent suggested that a similar seminar be conducted during Summer, 1976. (Incidentally, a seminar of this type is being conducted during Summer, 1976.) Seventy-five percent of the respondents felt that they are more aware of non-sexist materials in their teaching areas since they attended the seminar. Teaching materials and/or methods, to make them non-sexist, had been changed by 69 percent of the respondents. Projects which emphasize women's contributions and changes in the woman's role in today's society have been performed by 31 percent of the respondents since their seminar participation. Finally, information gathered at the seminar had been shared by 81 percent of the survey respondents. It is clear that "The Woman in the Gray Flannel Suit" seminar had an impact on participants in a number of areas.

Chamber of Commerce/Career Education Department Seminars

Another inservicing activity consisted of a series of seminars in career education, sponsored jointly by the Saint Paul Area Chamber of Commerce and the Saint Paul Career Education Project. A follow-up survey was conducted among seminar participants. The survey form may be found at the end of this report, as Exhibit 6.2.4. Highlights of the survey results follow. On the following survey items, respective percentages of respondents who either agreed or strongly agreed are reported:

The objectives of the seminar were clearly stated: 90%
The seminar presentations contained new material: 92%
The seminar met my expectations: 85%
The seminar increased my knowledge of the St. Paul business community: 89%
There was a good balance of large and small group activity: 80%
There has been an increase in community involvement in my classroom as a result of the seminar: 34%
Students have benefitted from my attendance at a seminar: 66%

There should be more interaction between the schools and the community: 92%

I would recommend attending a Career Education seminar to a colleague: 89%

In addition, five other survey items were constructed to survey the utilization of career education materials and services. Results follow:

Are Career Education materials available in your school?
Yes - 84%
No - 11%
No Answer - 5%

Does your school have a Career Resource Center?
Yes - 84%
No - 42%
No Answer - 7%

Do students use the Career Resource Center?
Never - 12%
Occasionally - 32%
Frequently - 23%
No Answer - 33%

Do you refer students to the Career Resource Center?
Never - 21%
Occasionally - 29%
Frequently - 16%
No Answer - 34%

Have you used the service(s) of the Career Education Center at Victoria?
Yes - 38%
No - 59%
No Answer - 3%

**Utilization of Career Education Services**

Another survey which was administered among teachers and others was titled "Saint Paul Public School Career Education Resource Center Questionnaires: Career Education Services, Spring, 1976". (See Exhibit 6.2.5) The survey was designed to determine the amount of utilization of the various services, including materials, available from the Career Education Resource Center, Victoria School. Included were the following services:

Respondents were requested to indicate their utilization of these services to provide an indication (on a scale of 1 to 5) regarding how helpful the services were, and whether or not they would like more help. In addition, respondents were asked to indicate how else the staff might be of assistance.

The survey was administered among teachers, and other staff in both the elementary and secondary schools, with two major groups in mind, i.e. those who were being served directly during the year by the Career Education Resource Center Staff, and a sample of those not directly being served but for whom career education services could be available. Responses from the latter group numbered only 5. Responses from the group being served directly, including staff in the Gemini Cluster, may be summarized as follows:

<table>
<thead>
<tr>
<th>SERVICES:</th>
<th>UTILIZED (Percent of Respondents)</th>
<th>HOW HELPFUL (Percent of Respondents)</th>
<th>WOULD LIKE (MORE) HELP (Percent of Respondents)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>Films</td>
<td>20%</td>
<td>0% 0% 7% 20% 13%</td>
<td>7%</td>
</tr>
<tr>
<td>Filmstrips &amp; Cassettes</td>
<td>41</td>
<td>0 0 2 24 39%</td>
<td>7%</td>
</tr>
<tr>
<td>Commercial Materials</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Posters</td>
<td>17</td>
<td>2 0 9 2 19%</td>
<td>4%</td>
</tr>
<tr>
<td>Kits</td>
<td>24</td>
<td>0 0 9 9 20%</td>
<td>4%</td>
</tr>
<tr>
<td>Bibliographies</td>
<td>11</td>
<td>0 0 4 6 15%</td>
<td>2%</td>
</tr>
<tr>
<td>Career Education Hand-Outs</td>
<td>28</td>
<td>2 0 11 13 22%</td>
<td>6%</td>
</tr>
<tr>
<td>(Activity Ideas)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Career Education Newsletter</td>
<td>11</td>
<td>2 7 17 2 4%</td>
<td>4%</td>
</tr>
<tr>
<td>Bulletin Board Ideas</td>
<td>11</td>
<td>0 2 4 4 6%</td>
<td>4%</td>
</tr>
</tbody>
</table>
It is clear that, as Career Education Staff services become available to teachers in service, career education services are utilized and are deemed helpful. In addition, involvement with career education services results in the teachers seeing the need for additional assistance from the Career Education Resource Center Staff.

### Evaluation Activities at Teaching/Learning Sites

A number of evaluation activities relating to Career Education have been carried on by teachers and others directly involved at the learning sites. One teacher in particular who has been involved in career education activities and their evaluation is Ms. Sande Speck, a teacher in the C-Pod of the Career Development Center, at 360 Colborne. Ms. Speck has
obtained some interesting evaluation results which are summarized in another document. The career education activities in the teaching/learning station have been aided by efforts and services of the Staff from the Career Education Resource Center.

Perceptions of Inservice Staff and Others

EMS conducted a number of interviews with inservice staff involved in career education in elementary and secondary programs in the Saint Paul Public Schools. Major points expressed by various staff members may be summarized as follows:

- Staff assistance from the Career Education Resource Center in planning and implementing career education is a vital ingredient relating to the process of infusing career education concepts into the ongoing curriculum. The career education staff is the "catalyst" in this process.

- Time is a necessary ingredient of career education planning, both for the teacher in service, as well as the Districts' Career Education Resource Center staff.

- The benefits available to students, staff, school and community far surpass the relatively small investments of financial resources. Many "free" community resources are available, to cite only one area of opportunity.

- The Saint Paul Schools will be wise to continue to support career education, a proposition which will have to deserve serious consideration in the year ahead, as the present project is completing its third and last year. There are feelings of support for this proposition among those staff who have benefited from these Career Education Resource Center services.

4.2.4 Major Findings: Student Component

A number of Student Component Findings may be summarized for the Saint Paul Career Education Project, including results of the administration of the Career Maturity Inventory in Grades 9 and 11, as well as Scales of Self Acceptance, Social Maturity, School Affiliation and Self Security in Grades 3, 5 and Junior High.
Career Maturity Inventory Results

The CMI (Career Maturity Inventory) was administered to Saint Paul students in grades 9 during 1973-74 and 11 in 1975-76. The CMI consists of a Attitude Scale and a Competence Test with five subtests. The results, in terms of average raw scores, are shown in the following table, for grades 9 during the 1973-74 year, and for grade 11 during the 1975-76 year. Included among the 2,524 eleventh graders are students who were ninth graders during the 1973-74 administration of the CMI.

<table>
<thead>
<tr>
<th>YEAR</th>
<th>GRADE</th>
<th>N</th>
<th>ATTITUDE SCALE</th>
<th>KNOWING YOURSELF</th>
<th>KNOWING ABOUT JOBS</th>
<th>CHOOSING A JOB</th>
<th>LOOKING AHEAD</th>
<th>WHAT SHOULD THEY DO</th>
</tr>
</thead>
<tbody>
<tr>
<td>1973-74</td>
<td>9</td>
<td>2916</td>
<td>34.6</td>
<td>12.5</td>
<td>15.2</td>
<td>12.6</td>
<td>12.8</td>
<td>9.9</td>
</tr>
<tr>
<td>1975-76</td>
<td>11</td>
<td>2524</td>
<td>35.7</td>
<td>13.2</td>
<td>15.9</td>
<td>13.0</td>
<td>12.9</td>
<td>10.3</td>
</tr>
</tbody>
</table>

Although there are no true national norms for the CMI, there are norms which generally are representative of students in broad sections of the country. In addition, the various subscores represent specific areas of career education program activity. Overall, Saint Paul students scored at or above other students whose raw scores contributed to the available norms. This indicates a strong base of career maturity attitudes and competencies.

Since the CMI provides a measurement of growth, the results show that gains have been significant when the ninth graders are compared with the eleventh graders. Although the student populations between the two school years may have differed somewhat, gains are shown in these total student populations over this two-year period. The Saint Paul student population appears to possess career maturity and a positive attitude toward the world of work.

Elementary Survey Results

As part of its district-wide testing program, Saint Paul
Schools have administered a series of scales designed to measure the self-concept of students in four major areas: 1) Self-Acceptance; 2) Social Maturity; 3) School Affiliation; and, 4) Self-Security. In Saint Paul, during the 1974-75 year, 296 second grade students were tested. In 1975-76, 545 grade 3 students were tested. The average scores (standard scores with a mean of 50 and a standard deviation of 10), were as follows for these two years:

<table>
<thead>
<tr>
<th>SCALE</th>
<th>1974-75 Grade 2</th>
<th>1975-76 Grade 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-Acceptance</td>
<td>48.7</td>
<td>50.4</td>
</tr>
<tr>
<td>Social Maturity</td>
<td>52.7</td>
<td>52.1</td>
</tr>
<tr>
<td>School Affiliation</td>
<td>46.6</td>
<td>50.5</td>
</tr>
<tr>
<td>Self-Security</td>
<td>51.5</td>
<td>53.5</td>
</tr>
</tbody>
</table>

Gains were shown in all areas except social maturity.

The intermediate-level version of this same survey reports the same four scales as for the primary level, plus three additional scales: Teacher Affiliation, Peer Affiliation, and Social Confidence. During 1974-75, 262 students in grade 5 were tested, while in 1975-76, 578 students in grade 5 were tested. The average scores at the intermediate level were as follows:

<table>
<thead>
<tr>
<th>SCALE</th>
<th>1974-75</th>
<th>1975-76</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-Acceptance</td>
<td>51.0</td>
<td>53.0</td>
</tr>
<tr>
<td>Self-Security</td>
<td>50.4</td>
<td>52.3</td>
</tr>
<tr>
<td>Social Maturity</td>
<td>51.8</td>
<td>51.1</td>
</tr>
<tr>
<td>Social Confidence</td>
<td>51.2</td>
<td>50.8</td>
</tr>
<tr>
<td>School Affiliation</td>
<td>50.2</td>
<td>54.7</td>
</tr>
<tr>
<td>Teacher Affiliation</td>
<td>50.8</td>
<td>52.5</td>
</tr>
<tr>
<td>Peer Affiliation</td>
<td>50.7</td>
<td>54.5</td>
</tr>
</tbody>
</table>

All scales are at or near national norms. In summary, the results of this testing have shown that elementary students in the Saint Paul Public Schools represent a student population which is close to the national norm in the measurement of various dimensions of self-concept, which is one of the major bases for career awareness.

4.3 MINNEAPOLIS CAREER EDUCATION PROJECT

4.3.1 Evaluation Objectives and Plan

The evaluation objectives and plan discussed in Section 4.1.1 was also applied to evaluation activities related to the Minneapolis Component of the project. During the 1974-75 year (the first year of the project's operation), student
outcomes baseline data were established in Minneapolis. Data collection and analysis efforts were continued during the 1975-76 year, and staff baseline data collection, relating to the Curriculum Development/Inservice Component of the Evaluation Plan was established.

4.3.2 Major Findings: Management Component

A number of major findings relating to the Management Component of the Minneapolis Career Education Project are found in Section 4.1.2. In addition, the following findings may be summarized for the Minneapolis Project:

- **Access to Community Resources**

  The Minneapolis Career Education Project continues to seek acceptance and support from key community groups, representing commerce, labor and industry.

- **Staffing Capabilities**

  The Minneapolis Career Education Project staff has brought good capabilities in teaching and counseling as backgrounds for career education in Minneapolis Public Schools. The staff is particularly efficient in planning the work and in working the plan. The staff is assuredly small in numbers when compared with the number of staff found in many other metropolitan school districts.

- **Evaluation Strengths**

  The Minneapolis Career Education Project has shown a tendency to base its planning on the results of data collection and evaluation efforts. A number of evaluation efforts were already in progress when EMS arrived as the project's third party evaluator.

- **Servicing Schools in the West Area**

  The Minneapolis Career Education Project has developed a thrust in the West Area of Minneapolis Public Schools. Included have been a number of career education strategies, including the establishment of career education centers, in the various West Area schools, serviced by the staff at the Career Education Center, Fulton School. With the allocation of a minimum of financial resources being dedicated to the project, district-wide thrusts should be possible. The West Area development should serve as a model for additional district-wide thrusts.

4.3.3 Major Findings: Curriculum Development/Inservice Component

A number of Curriculum Development/Inservice Component
findings may be summarized for the Minneapolis Career Education Project, including those related to seminar/workshop evaluations, Career Education Teacher Survey, and utilization of career education staff resources and materials.

**Inservicing Activity Evaluation Results**

A number of Career Education Workshops were provided by the Career Education staff during the 1975-76 school year. In addition to the majority of the workshops, which were provided for elementary and secondary teachers, there was also a workshop for principals and for counselors. As part of the workshops, a pre and post-test on career education concepts was administered to the participants. Teachers responded to a twenty-item test (see Exhibit 6.3.3), while counselors responded to a twenty-six-item test. Pre and post test results, as shown in the following table, show an overall pre-post gain of five test items for the elementary teachers, 3 items for the secondary teachers, and 2 items for the counselors. Elementary teachers included grades K-6 and secondary teachers included grades 7-12, in all subject areas.

<table>
<thead>
<tr>
<th>MINNEAPOLIS CAREER EDUCATION</th>
<th>FALL-SPRING, 1975-76 WORKSHOPS</th>
</tr>
</thead>
<tbody>
<tr>
<td>TEACHERS</td>
<td>PRE-POST TEST RESULTS</td>
</tr>
<tr>
<td></td>
<td>(Twenty-Item Test)</td>
</tr>
<tr>
<td></td>
<td>GROUP (N)</td>
</tr>
<tr>
<td></td>
<td>PRE-TEST MEAN</td>
</tr>
<tr>
<td>Elementary (19)</td>
<td>14</td>
</tr>
<tr>
<td>Elementary (19)</td>
<td>13</td>
</tr>
<tr>
<td>Elementary (20)</td>
<td>13</td>
</tr>
<tr>
<td>Elementary (11)</td>
<td>13</td>
</tr>
<tr>
<td>Elementary (11)</td>
<td>13</td>
</tr>
<tr>
<td>ELEMENTARY TOTALS (80)</td>
<td>13</td>
</tr>
<tr>
<td>Secondary (22)</td>
<td>13</td>
</tr>
<tr>
<td>Secondary (29)</td>
<td>15</td>
</tr>
<tr>
<td>Secondary (16)</td>
<td>15</td>
</tr>
<tr>
<td>SECONDARY TOTALS (67)</td>
<td>14</td>
</tr>
</tbody>
</table>

36
COUNSELORS

PRE-POST-TEST RESULTS
(Twenty-Six Item Test)

<table>
<thead>
<tr>
<th>(N)</th>
<th>PRE-TEST MEAN</th>
<th>POST-TEST MEAN</th>
<th>GAIN MEAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>15</td>
<td>17</td>
<td>2</td>
</tr>
</tbody>
</table>

In addition, a Workshop Evaluation Questionnaire was administered at the end of each workshop. The four major items of the questionnaire follow, along with responses most frequently given by the teachers/counselors/administrators in attendance at the workshop:

1. **What did you find most beneficial?**
   - Presentations
   - Resource Information/Materials
   - NSP Trip
   - Ideas/New Concepts/Suggestions

2. **What did you find least beneficial?**
   - Presentations
   - Films/Games too Long
   - Special Education Session
   - Small Group Sessions

3. **What other topics would you have liked covered in this workshop?**
   - Concrete Ideas: Initiating Career Program
   - Presentations by Occupational Clusters
   - Time with Materials/Bibliographies/Ideas
   - Examples of Units Taught in Elementary
   - Changing Jobs in Twin Cities
   - Career Motivation/Decision-Making
   - How to Set Up a Resource Center

4. **Did you find anything that you felt should have been included?**
   - Last Sessions Could be Shortened
   - Shorter Speeches
   - Discussions on Racism/Sexism

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The Career Education Staff has utilized the workshop evaluation results, after each workshop, in planning each subsequent workshop.

Career Education Teacher Survey

One of the major objectives of the 1975-76 evaluation project has been to establish baseline data on teachers, as background for measuring teacher involvement in career education activities, as well as teacher opinions and other attitudes relating to career education. Exhibit 6.3.4 in the Appendix is the survey form utilized. A sample of elementary and secondary teachers were surveyed. Results of the survey for elementary and secondary (combined) teachers, corresponding to the two major areas surveyed (i.e., Teacher Activities and Teacher Opinions) by number of responses, are found on the following pages.

Survey results relating to Teacher Activities are summarized by frequency of use, as well as in comparison to the previous school year. The item "integration of career education into my curriculum" was reported "nearly every day" by 21 respondents and "about once a week" by 19 respondents. Forty respondents reported "more" (of this same activity) in comparison with the previous school year. Likewise, "career related units" were reported by 11 respondents "nearly every day", and 57 respondents reported more of this same activity than during the previous school year. "Field trips" were reported less frequently, perhaps because of a budget cut which allowed fewer to happen.

In the area of Teacher Opinions, the following items received the highest "strongly agree (SA)" responses:

- The career resource staff are open and willing to help me. (54)
- A sound career education program should emphasize the use of community resources outside the classroom. (45)
- The career education program should involve all students and all teachers. (42)

In addition, virtually all respondents (76 out of 81) felt they understand the term "Career Education". Likewise, nearly all (76 out of 81) agreed that they know who to go to for assistance in planning and implementing career education activities. The reader can gauge the growth in career education activity participation since last year. Results of this survey will be particularly useful when comparisons can be made with 1976-77 survey results a year hence.
CAREER EDUCATION TEACHER SURVEY
TEACHER ACTIVITIES
Elementary and Secondary (Combined) Results

<table>
<thead>
<tr>
<th>Frequency of Use</th>
<th>Compared To Previous School Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>NEARLY EVERY DAY</td>
<td>ABOUT ONCE A WEEK</td>
</tr>
<tr>
<td>1) Integration of Career Education into my curriculum</td>
<td>21</td>
</tr>
<tr>
<td>2) Use of Career Related Activities as:</td>
<td></td>
</tr>
<tr>
<td>films, filmstrips or multimedia kits</td>
<td>1</td>
</tr>
<tr>
<td>field trips</td>
<td>0</td>
</tr>
<tr>
<td>resource people</td>
<td>2</td>
</tr>
<tr>
<td>group discussion on careers or job opportunities</td>
<td>6</td>
</tr>
<tr>
<td>career related units</td>
<td>11</td>
</tr>
<tr>
<td>worker interviews</td>
<td>1</td>
</tr>
<tr>
<td>career related displays or bulletin boards</td>
<td>2</td>
</tr>
<tr>
<td>3) Are you involved in self-awareness activities with your students such as: values clarification, DUSO, or SRA, interest inventories, self-awareness units, role playing</td>
<td>8</td>
</tr>
<tr>
<td>4) Help from or joint planning with the career education staff</td>
<td>2</td>
</tr>
<tr>
<td>5) Use of library or career center, career related materials</td>
<td>6</td>
</tr>
</tbody>
</table>
Using the following scale, please record your opinions by circling the number corresponding to your answer:

1 = if you strongly agree with the statement
2 = if you agree with the statement in general
3 = if you are uncertain about your feelings
4 = if you disagree with the statement
5 = if you strongly disagree with the statement

<table>
<thead>
<tr>
<th>Statement</th>
<th>SA</th>
<th>A</th>
<th>U</th>
<th>D</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>The goals of the career education program in the Minneapolis schools are clear to me</td>
<td>27</td>
<td>46</td>
<td>5</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>The career education program should involve all students and all teachers</td>
<td>42</td>
<td>31</td>
<td>5</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>A sound career education program should emphasize the use of community resources outside the classroom</td>
<td>45</td>
<td>30</td>
<td>3</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>A career education program should enable students to explore preferences to a depth desired</td>
<td>28</td>
<td>44</td>
<td>5</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>My role as a teacher is that of a facilitator of learning rather than an information giver</td>
<td>24</td>
<td>37</td>
<td>11</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>The interviewing of adults by students is a vital part of the career education program</td>
<td>18</td>
<td>39</td>
<td>21</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The career resource staff and office are open and willing to help me</td>
<td>54</td>
<td>24</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I feel that career education activities have helped the majority of my students:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) become active rather than passive learners</td>
<td>10</td>
<td>38</td>
<td>20</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>b) increase their understanding of major occupational fields</td>
<td>12</td>
<td>48</td>
<td>8</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>c) stimulate thought about career choices that are realistic</td>
<td>14</td>
<td>41</td>
<td>15</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>d) view education as a continuous process</td>
<td>15</td>
<td>41</td>
<td>15</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>e) relate school subjects to knowledge and skills needed in the world of work</td>
<td>15</td>
<td>40</td>
<td>14</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>f) clarify misconceptions and stereotypes about certain occupations</td>
<td>14</td>
<td>39</td>
<td>15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>g) understand the importance of the 3R's in both school and work</td>
<td>14</td>
<td>35</td>
<td>20</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
- Do you feel you understand the term "Career Education?"
  Yes 78  No  -  Not Sure 3

- Would you rather see career education taught as a separate element of the curriculum instead of trying to integrate it into other subject areas?
  Yes 9  No 60  Not Sure 11

- Do you know who to go to for assistance in planning and implementing career education activities?
  Yes 76  No  -  Not Sure 5

- Have you utilized the materials and/or concepts developed during the workshops?
  Yes 64  No 5  Not Sure 8
Career Education Staff and Resource Center Activities

Further indications of career education staff efforts and utilization of career education materials may be found in documentation available at the Fulton School Office. This documentation includes logs which are maintained weekly and relate to both staff activities and check-out of materials. Examples of the forms used in this logging procedure may be found in Exhibits 6.3.5 and 6.3.6, in the Appendix filed supplement to this report. Summaries of the data from staff log sheets have been provided in each of the quarterly reports filed by the Minneapolis Career Education Project Administrator. An examination of the career education materials log records by EMS has shown an active and a relatively high and frequent utilization of career education materials.

Further explanation of materials usage from the Fulton Career Resource Center should be made. The Elementary Resource Office materials are sent directly to teachers. Some of the secondary resources are lent from the Fulton Career Resource Center, but generally the Minneapolis Career Education Project recommends purchase for the individual (secondary) school career centers.

4.3.4 Major Findings: Student Component

A number of Student Component Findings may be reported for the Minneapolis Career Education Project, including results of the administration of the Career Maturity Inventory in secondary schools and of the Career Education Student Survey in the elementary schools.

Career Maturity Inventory Results

The Career Maturity Inventory (CMI) consists of an Attitude Scale and a competence test, with five subtests.

During the 1974-75 year, 63 Minneapolis eighth graders and 62 tenth graders responded to the CMI Attitude Scale and the Competence Subtest, Knowing About Jobs. During the 1975-76 year, 227 eleventh graders, in two Minneapolis high schools, and 128 ninth graders in a junior high school, responded to the CMI Attitude Scale and four of the five sub-scales on the Competence Test. The results, in terms of average raw scores, are shown in the following table, for grades eight and ten during the 1974-75 year, and for grades 9 and 11 during the 1975-76 year.
Individual pupil reports and school summaries have been provided to the Minneapolis Schools for the CMI results this year. Although there are no true national norms for the CMI, there are norms which generally are representative of students in broad sections of the country. Further, the various subscores represent specific areas of Career Education program activity. Overall, Minneapolis students scored at or above other students whose raw scores contributed to the available norms. This indicates a strong base of career maturity, attitude and competencies. The eleventh grade students, (whose high schools are in the West Area of Minneapolis Schools, ie. the project target area) scored particularly high in comparison with their grade norms.

Since the CMI provides a measurement of growth, the results show that gains have been significant when the (1974-75) eight and tenth graders are compared with the (1975-76) ninth and eleventh graders. Although the student populations between the two school years may have differed somewhat, gains are shown in these total student populations over this two-year period. The Minneapolis student population appears to possess career maturity and a positive attitude toward the world of work.

During the fall trimester, 1975, a ninth grade group in the West Area was pre-and post-tested at the beginning and end of a unit taught in Career Education, on the Attitude Scale and four sub-tests of the Competence Test, i.e., Knowing Yourself, Knowing About Jobs, Choosing a Job, and Looking Ahead. This group (School A, Pre-and Post-Test) are compared with a group of 128 ninth graders, in another area of the city, who responded to the CMI later in the 1975-76 school year (School B). Results follow.
MINNEAPOLIS CAREER MATURITY INVENTORY  
AVERAGE RAW SCORES  
GRADE 9, 1975-76

<table>
<thead>
<tr>
<th>SCHOOL</th>
<th>N</th>
<th>ATTITUDE SCALE</th>
<th>KNOWING YOURSELF</th>
<th>KNOWING ABOUT JOBS</th>
<th>CHOOSING A JOB</th>
<th>LOOKING AHEAD</th>
</tr>
</thead>
<tbody>
<tr>
<td>A (Pre-Test)</td>
<td>109</td>
<td>35.2</td>
<td>13.8</td>
<td>14.9</td>
<td>13.4</td>
<td>12.8</td>
</tr>
<tr>
<td>A (Post-Test)</td>
<td>109</td>
<td>38.0</td>
<td>14.3</td>
<td>16.4</td>
<td>14.5</td>
<td>14.2</td>
</tr>
<tr>
<td>B (One test only)</td>
<td>128</td>
<td>33.1</td>
<td>12.2</td>
<td>13.5</td>
<td>11.4</td>
<td>11.6</td>
</tr>
</tbody>
</table>

Raw scores for School A ninth grade students who were exposed to a concentrated career education unit were significantly higher on the Attitude Scale and all four of the Competence Sub-scales, in comparison with raw scores for students in School B, with no particular career education exposure.

Elementary Survey Results

Through the joint efforts of EMS and the Minneapolis Career Education Project Staff, a Career Education Student Survey, Spring, 1976 was developed. (See Exhibit 6.3.7 in the Appendix). This survey was administered to third and fifth grade students in elementary schools, both to classes whose teacher had attended a Career Education workshop and to classes whose teacher had not participated. The follow-through responses to the survey were as follows:

With teachers attending a workshop:
Third graders = 94  
Fifth graders = 104  
Total = 198

With teachers not attending a workshop:
Third graders = 107  
Fifth graders = 89  
Total = 196

The comparative responses, expressed as percentages, are summarized by survey item in the next pages of this section.

The summary provides a listing of each of the fourteen survey items, and a distribution of responses by grade and overall for the two groups of students, i.e., Group A: those
whose teacher attended a Career Education Workshop and Group B, those whose teacher did not attend. In addition, for each survey item, a mean response (1 = agree, 5 = disagree) is also provided. Those students who responded to an item with either "1" or "2" are counted as agreeing with the statement, in the discussion which follows.

Ninety-two and 94 percent of Groups A and B, respectively, agreed with the statement, "Mathematics is important to people who work". Forty-six percent of Group A, and 29 percent of Group B agreed with the statement, "I would like to grow up and have the same type of job as my mother or father". In response to the statement, "I like to visit businesses and workers outside of school", 77 percent of Group A and 81 percent of Group B agreed. In response to the statement, "I like to visit businesses and workers outside of school", 77 percent of Group A and 81 percent of Group B agreed. In response to the statement, "I do some things well that would help me on the job", 86 percent of Group A and 82 percent of Group B agreed. Other slight differences in agreeing responses are noted for the remainder of the items in the survey. Many of the third and fifth-grade classes with teachers not attending were well advanced in career education, as is reflected in the responses of Group B.

Minneapolis results on this questionnaire were also compared, for five of the survey items, with a national sample of pupils in Grades 4 - 6, utilized in a U.S. Office of Education study during 1972-73. This comparison is shown in the following table.

It is apparent that Minneapolis responses were generally more positive on items 1, 4, 5, and 8 than those in the national sample. It is also apparent that attitudes of the Minneapolis third and fifth graders surveyed were generally positive, as shown by high percentages of agreement with survey items.

### COMPARISON OF MINNEAPOLIS AND NATIONAL SAMPLE:

#### ATTITUDES TOWARD CAREER EDUCATION

<table>
<thead>
<tr>
<th>SURVEY ITEM NUMBER AND STATEMENT</th>
<th>NATIONAL SAMPLE</th>
<th>MINNEAPOLIS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Percent Agreeing</td>
<td>Percent Agreeing</td>
</tr>
<tr>
<td></td>
<td>Group A</td>
<td>Group B</td>
</tr>
<tr>
<td>1. Mathematics is important to people who work</td>
<td>86%</td>
<td>92%</td>
</tr>
<tr>
<td>2. I would like to see films about how things are made</td>
<td>78%</td>
<td>68%</td>
</tr>
</tbody>
</table>

45
## COMPARISON OF MINNEAPOLIS AND NATIONAL SAMPLE:
### ATTITUDES TOWARD CAREER EDUCATION

<table>
<thead>
<tr>
<th>SURVEY ITEM NUMBER AND STATEMENT</th>
<th>NATIONAL SAMPLE</th>
<th>MINNEAPOLIS</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Percent Agreeing</td>
<td>Percent Agreeing</td>
<td>Group A</td>
<td>Group B</td>
</tr>
<tr>
<td>4. Students should be taught about jobs in school</td>
<td>72%</td>
<td>73%</td>
<td>82%</td>
<td></td>
</tr>
<tr>
<td>5. School should teach me things I can use on a job</td>
<td>66</td>
<td>75</td>
<td>79</td>
<td></td>
</tr>
<tr>
<td>8. I am too young to think about what I want to do when I grow up</td>
<td>22</td>
<td>30</td>
<td>16</td>
<td></td>
</tr>
</tbody>
</table>
CAREER EDUCATION STUDENT SURVEY, SPRING 1976
MINNEAPOLIS SCHOOLS
SAMPLE OF THIRD AND FIFTH GRADES

<table>
<thead>
<tr>
<th>Survey Item</th>
<th>Teacher Attending Workshop (A)</th>
<th>Teacher Not Attending Workshop (B)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Grade</td>
<td>Grade</td>
</tr>
<tr>
<td></td>
<td>3 (N=94)</td>
<td>5 (N=104)</td>
</tr>
<tr>
<td></td>
<td>3 (N=107)</td>
<td>5 (N=89)</td>
</tr>
<tr>
<td>1. Mathematics is important to people who work</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 = Agree</td>
<td>67%</td>
<td>70%</td>
</tr>
<tr>
<td>2</td>
<td>23 23</td>
<td>18 38</td>
</tr>
<tr>
<td>3</td>
<td>9 6 7</td>
<td>5 1</td>
</tr>
<tr>
<td>4</td>
<td>1 1 1</td>
<td>5 3</td>
</tr>
<tr>
<td>5 = Disagree</td>
<td>1.45 1.39 1.42</td>
<td>1.46 1.41</td>
</tr>
<tr>
<td>Mean</td>
<td>1.38 2.23 2.06</td>
<td>1.77 1.95</td>
</tr>
<tr>
<td>2. I would like to see films about how things are made</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 = Agree</td>
<td>50 39 44</td>
<td>54 37 47</td>
</tr>
<tr>
<td>2</td>
<td>27 21 24</td>
<td>24 42 32</td>
</tr>
<tr>
<td>3</td>
<td>14 25 20</td>
<td>17 16 16</td>
</tr>
<tr>
<td>4</td>
<td>2 8 5</td>
<td>- 1</td>
</tr>
<tr>
<td>5 = Disagree</td>
<td>6 7 7</td>
<td>5 4</td>
</tr>
<tr>
<td>Mean</td>
<td>2.78 3.08 2.94</td>
<td>3.14 3.36</td>
</tr>
<tr>
<td>3. I would like to grow up and have the same type of job as my mother or father</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 = Agree</td>
<td>28 26 27</td>
<td>23 10 17</td>
</tr>
<tr>
<td>2</td>
<td>23 16 19</td>
<td>10 15 12</td>
</tr>
<tr>
<td>3</td>
<td>19 14 17</td>
<td>29 31 30</td>
</tr>
<tr>
<td>4</td>
<td>6 12 9</td>
<td>8 14 11</td>
</tr>
<tr>
<td>5 = Disagree</td>
<td>24 32 28</td>
<td>30 30 30</td>
</tr>
<tr>
<td>Mean</td>
<td>2.14 1.80 1.96</td>
<td>1.92 1.96</td>
</tr>
<tr>
<td>4. Students should be taught about jobs in school</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 = Agree</td>
<td>43 48 45</td>
<td>56 42 49</td>
</tr>
<tr>
<td>2</td>
<td>24 30 28</td>
<td>16 32 23</td>
</tr>
<tr>
<td>3</td>
<td>19 17 18</td>
<td>16 20 18</td>
</tr>
<tr>
<td>4</td>
<td>44 4 4</td>
<td>5 3 4</td>
</tr>
<tr>
<td>5 = Disagree</td>
<td>10 1 5</td>
<td>7 3 6</td>
</tr>
<tr>
<td>Mean</td>
<td>2.14 1.80 1.96</td>
<td>1.92 1.96</td>
</tr>
<tr>
<td>5. School should teach me things I can use on a job</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 = Agree</td>
<td>50 58 53</td>
<td>53 50 51</td>
</tr>
<tr>
<td>2</td>
<td>20 23 22</td>
<td>20 38 28</td>
</tr>
<tr>
<td>3</td>
<td>20 12 16</td>
<td>9 6 8</td>
</tr>
<tr>
<td>4</td>
<td>4 4 4</td>
<td>7 3 5</td>
</tr>
<tr>
<td>5 = Disagree</td>
<td>6 3 5</td>
<td>11 3 8</td>
</tr>
<tr>
<td>Mean</td>
<td>1.99 1.70 1.84</td>
<td>2.04 1.70</td>
</tr>
</tbody>
</table>
CAREER EDUCATION STUDENT SURVEY, SPRING 1976
MINNEAPOLIS SCHOOLS
SAMPLE OF THIRD AND FIFTH GRADES

<table>
<thead>
<tr>
<th>Survey Item</th>
<th>Teacher Attending Workshop (A)</th>
<th>Teacher Not Attending Workshop (B)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Grade 3 (N=94)</td>
<td>Grade 5 (N=104)</td>
</tr>
<tr>
<td>6. My job is being a student</td>
<td>65% 45% 55%</td>
<td>75% 40% 59%</td>
</tr>
<tr>
<td>1 = Agree</td>
<td>14 22 18</td>
<td>7 20 13</td>
</tr>
<tr>
<td>2</td>
<td>10 18 24</td>
<td>7 22 14</td>
</tr>
<tr>
<td>3</td>
<td>2 3 3</td>
<td>4 8 6</td>
</tr>
<tr>
<td>4</td>
<td>9 12 10</td>
<td>7 8 8</td>
</tr>
<tr>
<td>5 = Disagree</td>
<td>1.75 2.15 1.96</td>
<td>1.63 2.21 1.89</td>
</tr>
<tr>
<td>Mean</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. I like myself</td>
<td>77 83 80</td>
<td>80 83 82</td>
</tr>
<tr>
<td>1 = Agree</td>
<td>12 9 10</td>
<td>7 15 10</td>
</tr>
<tr>
<td>2</td>
<td>6 8 8</td>
<td>7 - 4</td>
</tr>
<tr>
<td>3</td>
<td>1 - -</td>
<td>- 1 -</td>
</tr>
<tr>
<td>4</td>
<td>- 2 6</td>
<td>1 4</td>
</tr>
<tr>
<td>5 = Disagree</td>
<td>1.45 1.26 1.35</td>
<td>1.47 1.23 1.36</td>
</tr>
<tr>
<td>Mean</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. I am too young to think about what I want to do when I grow up</td>
<td>23 10 17</td>
<td>16 2 9</td>
</tr>
<tr>
<td>1 = Agree</td>
<td>10 17 13</td>
<td>4 10 7</td>
</tr>
<tr>
<td>2</td>
<td>14 9 11</td>
<td>6 8 7</td>
</tr>
<tr>
<td>3</td>
<td>6 6 6</td>
<td>8 76 16</td>
</tr>
<tr>
<td>4</td>
<td>- 5 -</td>
<td>3 2</td>
</tr>
<tr>
<td>5 = Disagree</td>
<td>47 58 53</td>
<td>66 54 61</td>
</tr>
<tr>
<td>Mean</td>
<td>3.44 3.85 3.65</td>
<td>4.05 4.23 4.13</td>
</tr>
<tr>
<td>9. I get along well with my classmates</td>
<td>42 47 45</td>
<td>50 33 43</td>
</tr>
<tr>
<td>1 = Agree</td>
<td>27 25 26</td>
<td>26 47 35</td>
</tr>
<tr>
<td>2</td>
<td>24 14 18</td>
<td>17 17 17</td>
</tr>
<tr>
<td>3</td>
<td>6 6 5</td>
<td>3 2</td>
</tr>
<tr>
<td>4</td>
<td>- 6 6</td>
<td>- 3</td>
</tr>
<tr>
<td>5 = Disagree</td>
<td>3.00 2.04 2.02</td>
<td>1.86 1.92 1.89</td>
</tr>
<tr>
<td>Mean</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. I feel good about the decisions I make in school</td>
<td>40 44 41</td>
<td>54 42 48</td>
</tr>
<tr>
<td>1 = Agree</td>
<td>28 27 27</td>
<td>24 39 31</td>
</tr>
<tr>
<td>2</td>
<td>26 25 26</td>
<td>17 16 16</td>
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<tr>
<td>3</td>
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<td>- 3 -</td>
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<tr>
<td>4</td>
<td>3 2 3</td>
<td>5 - 3</td>
</tr>
<tr>
<td>5 = Disagree</td>
<td>3.04 1.92 1.92</td>
<td>1.78 1.81 1.79</td>
</tr>
<tr>
<td>Mean</td>
<td></td>
<td></td>
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<tr>
<td>Survey Item</td>
<td>Grade</td>
<td>Teacher Attending Workshop (A)</td>
</tr>
<tr>
<td>-------------</td>
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<td>-------------------------------</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>11. I enjoy interviewing workers in our classroom</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 = Agree</td>
<td>53%</td>
<td>26%</td>
</tr>
<tr>
<td>2</td>
<td>18</td>
<td>27</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
<td>11</td>
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<tr>
<td>4</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5 = Disagree</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Mean</td>
<td>1.47</td>
<td>1.78</td>
</tr>
</tbody>
</table>

12. I like to visit businesses and workers outside of school
1 = Agree  70 50 59 56 46 52%
2          15 20 18 23 39 29
3          8 18 13 8 12 10
4          3 4 4 5 3 4
5 = Disagree 4 8 6 8 1 5
Mean       1.57 1.99 1.79 1.83 1.77 1.80

13. I do some things well that would help me on a job
1 = Agree  64 49 56 58 63 60
2          27 33 30 22 23 22
3          8 12 10 11 10 11
4          1 2 2 1 3 2
5 = Disagree 4 2 2 8 1 5
Mean       1.47 1.78 1.63 1.82 1.58 1.71

14. I would like to work at a job when I finish school
1 = Agree  70 79 75 76 89 82
2          12 12 12 7 6 6
3          14 7 10 11 4 8
4          - 2 3 1 1 1
5 = Disagree 4 2 3 5 1 3
Mean       1.57 1.34 1.45 1.51 1.20 1.37
V. CONCLUSIONS AND RECOMMENDATIONS

Results and findings of the Third-Party Evaluation of the Saint Paul-Minneapolis Career Education Project during the 1975-76 year, have been reported in the foregoing sections of this Final Report. This section of the Report discusses conclusions and presents recommendations relating to the Project. In the first sub-section (5.1), the (combined) Saint Paul-Minneapolis Project is first discussed, including comments which relate to both of the Project Sites, at Saint Paul and Minneapolis. The last two sections (5.2 and 5.3) serve to comment on the Saint Paul and Minneapolis project sites, respectively.

5.1 SAINT PAUL-MINNEAPOLIS CAREER EDUCATION PROJECT

1) A significant amount of community involvement has been observed at both Saint Paul and Minneapolis, as well as a willingness on the part of the Twin Cities community to be involved in the future, including the 1976-77 year.

2) The target groups, including students, as well as school staff and community organizations, are being served by both sites. Target groups being served vary from Saint Paul to Minneapolis, based upon student characteristics and community backgrounds.

3) Each of the two project sites, and the (combined) Saint Paul-Minneapolis Project, show evidences of management systems operation, with project monitoring being provided by the career education staffs at each site, by DHEW/USOE project liaison, Region V office, Chicago, and by the Third Party Evaluator.

4) Growth in staff development at both sites has been evident. A considerable number of inservice activities have been observed and continue to be planned.

5) The project, including operations at both Saint Paul and Minneapolis, shows evidence of cost effectiveness. The project, operating in Minnesota's two largest school districts, has provided a vehicle for optimal return of Federal as well as local dollars. The use of personnel and materials, as well as the projects' spending plan, are on schedule at this stage of its development.

6) A significant amount of planning and articulation has occurred during the 1975-76 project year, i.e. between two cooperating school districts, with the Minnesota Department
of Education, with DHEW/USOE and with the Third-Party Evaluator. Career Education is providing a "common denominator" of interest between elementary and secondary education in both school districts.

7) A number and variety of career education activities are taking place, both in the school and community settings, at both Saint Paul and Minneapolis.

8) Activities at both project sites are attracting statewide and national attention. Numerous inquiries from other school districts and projects concerning career education activities and products are being evidenced both within Minnesota and elsewhere.

9) There is evidence of the use of career education materials and procedures in other areas of the school curriculum at both Saint Paul and Minneapolis.

10) The school administrations at the two project sites are showing support and are seeking to promote infusion of career education into the general curriculum. Particular support for career education has come from Research and Evaluation in both Saint Paul and Minneapolis Schools.

11) Both school districts have sought to be helpful to the private and parochial schools in the Twin Cities metropolitan area.

12) At both Saint Paul and Minneapolis, more time is needed for career education planning and inserviceing activities. Classroom teachers are the key personnel for the infusion of career concepts with the ongoing curriculum of the schools. They need encouragement in these areas from their principals and other district administrations.

13) Students at both project sites are being exposed to a variety of experiences, both within the school and in the immediate community.

14) At both sites, the school-community relationships which are developing can have lasting impacts on the schools and the communities in the years ahead, with continuing support.

15) As the third and final year of the Saint Paul-Minneapolis Career Education Project is approaching, there is a real need for the districts to be forming goals and objectives relating to the continuation of career education thrusts beyond the June 30, 1977 termination of the Project. It is recommended that Saint Paul and Minneapolis Schools, in conjunction with the Minnesota Department of Education, write a proposal to Implement, Demonstrate and Evaluate an
Experience-Based Career Education Program (EBCE) which has been developed and tested at one or more of the four Educational Regional Laboratories which have developed EBCE Programs under the leadership of DHEW/USOE.

16) Student outcome measures in career education have served to document growth in career awareness, exploration, career maturity, and positive attitude toward the world of work.

17) It has been a pleasure for EMS to have been involved with the project personnel in Saint Paul, Minneapolis, and USOE Region V Office, Chicago. In anticipating the 1976-77 operation of the Project as a Third-Party Evaluator, it will help a great deal to be on contract earlier during the coming year, so that evaluation planning for the 1976-77 year can commence no later than September, 1976.

18) Oliver Wendell Holmes is quoted as having said, "There is no force that can withstand a good idea whose time has come of age"

It is our hope that this concept will fully apply to continued Career education thrusts in both Saint Paul and Minneapolis Schools, during the immediate years ahead.

5.2 SAINT PAUL CAREER EDUCATION PROJECT

1) The Saint Paul Community provides an excellent cross section of the nation for demonstrating career education programs. There is an exemplary commitment to working with Saint Paul Schools in educational programs, including career education, on the part of the Saint Paul Area Chamber of Commerce.

2) The school principals and career center coordinators are key leadership people beyond the Career Education staff themselves. It is hoped that they will continue to help see that career education concept infusion takes place, particularly since not enough time is ever available to accomplish all things.

3) It is important that the career education project staffs and advisory committee continue to seek support from the Saint Paul Schools. This period of time marks the completion of two-thirds of the time span for the project staff to review and update goals and objectives with the school administration/board, with the Minnesota Department of Education, and with the U.S. Office of Education.

4) Utilization of Career Education staff services and materials have tended to increase as the career education staff have
had an opportunity to reach and inspire additional teachers and other personnel in Saint Paul Schools.

5.3 MINNEAPOLIS CAREER EDUCATION PROJECT

1) A significant amount of technical assistance has been observed as the Minneapolis Project has planned and implemented career education in one (targeted) area of Minneapolis Schools. The West Area development during the past two years should serve as a model for district-wide career education thrusts in the years ahead.

2) Teacher background and opinions, surveyed in detail, show growth in knowledge, enthusiasm and involvement in career education projects being implemented in Minneapolis.

3) It will be helpful for the Minneapolis Career Education Project Staff to review and update project goals and plans, as the third year of the project is approached. The place of Career Education in the total school system should also continue to be discussed and defined.

4) It would be especially helpful to add one additional major staff member to the Minneapolis Career Education Staff. This would allow the Project Administrator, who must utilize a portion of his time in secondary career education thrusts, to devote more overall attention to the development and leadership toward district-wide strategies. Decisions on administrative structures, local funding, and direction for Career Education must be made.
VI. EXHIBITS

6.1 Saint Paul-Minneapolis Career Education Project

6.1.1 Evaluation Plan Summary Chart
6.1.2 Agenda

6.2 Saint Paul Career Education Project

6.2.1 Purposes and Goals of the Saint Paul Career Education Project
6.2.2 Saint Paul Evaluation Needs
6.2.3 "The Woman in the Gray Flannel Suit" Follow-up Questionnaire
6.2.4 Evaluation of Chamber of Commerce/Career Education Department Seminars
6.2.5 Saint Paul Public Schools Career Education Resource Center Questionnaire

6.3 Minneapolis Career Education Project

6.3.1 Purposes and Goals of Minneapolis Career Education Project
6.3.2 Minneapolis Evaluation Needs
6.3.3 Career Development Test
6.3.4 Career Education Teacher Survey, 1975-76
6.3.5 Career Education Project - Weekly Report
6.3.6 Check Out Sheet
6.3.7 Career Education Student Survey, Spring, 1976
### EVALUATION PLAN SUMMARY CHART

**PROJECT:** Saint-Paul-Minneapolis, Career Education Project  
**EVALUATOR:** Educational Management Services, Inc.

<table>
<thead>
<tr>
<th>EVALUATION COMPONENT/ACTIVITY</th>
<th>BASELINE DATA</th>
<th>INSTRUMENTATION</th>
<th>DATA COLLECTION RESPONSIBILITY</th>
<th>ANALYTICAL TECHNIQUE</th>
</tr>
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<td><strong>1. MANAGEMENT COMPONENT</strong></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>1.1 Dimensionalize Goals/</td>
<td>Project Proposal/</td>
<td>Documentation</td>
<td>Evaluator/Project</td>
<td>Summary &amp;</td>
</tr>
<tr>
<td>Objectives</td>
<td>Reports/Staff</td>
<td>Available</td>
<td>Staff</td>
<td>Documentation</td>
</tr>
<tr>
<td>1.2 Monitor Project Plan</td>
<td>Project Plan/</td>
<td></td>
<td>Evaluator</td>
<td></td>
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<tr>
<td></td>
<td>Evaluation Plan</td>
<td></td>
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<tr>
<td><strong>2. CURRICULUM DEVELOPMENT/</strong></td>
<td></td>
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<td></td>
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<tr>
<td><strong>INSERVICE COMPONENT</strong></td>
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</tr>
<tr>
<td>2.1 Dimensionalize Curriculum/</td>
<td>Project Proposal/</td>
<td>Documentation</td>
<td>Evaluator/Project</td>
<td>Statistical</td>
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<tr>
<td>Inservice Objectives</td>
<td>Reports/Staff</td>
<td>Available</td>
<td>Staff</td>
<td>Summaries</td>
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<td></td>
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<td>Profiles</td>
</tr>
<tr>
<td>2.2 Develop Instrumentation</td>
<td>Project Proposal/</td>
<td>To Be Developed</td>
<td>Evaluator/Project</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Staff/First Year Results</td>
<td></td>
<td>Staff</td>
<td></td>
</tr>
<tr>
<td>2.3 Assess Attainment of</td>
<td>Curriculum Development/</td>
<td>Field Research</td>
<td>Evaluator</td>
<td></td>
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<tr>
<td>Objectives</td>
<td>Inservice Instrumentation</td>
<td>Questionnaire</td>
<td></td>
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<tr>
<td><strong>3. STUDENT COMPONENT</strong></td>
<td></td>
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<tr>
<td>3.1 Clarify Objectives/</td>
<td>Project Proposal/</td>
<td></td>
<td>Evaluator</td>
<td></td>
</tr>
<tr>
<td>Identify Measures</td>
<td>Reports/Project Staff</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.2 Administer Inventory and</td>
<td>First Year Results</td>
<td>To Be Confirmed</td>
<td>Evaluator/Project</td>
<td>Pre-Post Comparative</td>
</tr>
<tr>
<td>Survey Measurements</td>
<td></td>
<td>Staff</td>
<td></td>
<td>Analyses</td>
</tr>
<tr>
<td>3.3 Score/Analyze Survey Data</td>
<td>Instrumentation Results</td>
<td></td>
<td>Evaluator</td>
<td></td>
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<tr>
<td></td>
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</tbody>
</table>
PAGE 56 CONSISTING OF A MEETING AGENDA WAS NOT REPRODUCIBLE
AND WAS REMOVED FROM THIS DOCUMENT PRIOR TO ITS BEING SUBMITTED
TO THE ERIC DOCUMENT REPRODUCTION SERVICE.
EXHIBIT 6.2.1
PURPOSES AND GOALS OF
THE SAINT PAUL CAREER EDUCATION PROJECT

Summary portions of the Saint Paul project overviews, including purposes and goals, pertaining to the second year's evaluation, are presented in this Exhibit.

SAINT PAUL PURPOSES AND GOALS

Purposes

Saint Paul has entered Phase IV of its career education program and this involves specialized staffing, teacher prepared instructional modules and expansion of career education resource centers.

Phase I included appointment of a Director of Career Education and two consultants, one elementary and one secondary. The staff then developed and presented a Five Year Plan to the Board and State. The staff then developed an audio-visual presentation on Career Education for districtwide utilization. Citywide workshops were then instituted cooperatively with the University of Minnesota.

Phase II marked the formulation and functioning of the Career Education Advisory Council. During this phase, the Saint Paul Area Chamber of Commerce established a series of seminars during the summer with Saint Paul Schools. Career Education councils were formed in some of the secondary schools.

Phase III marked the start of a series of television programs, 20 minutes in length, 30 in number, beamed at careers for elementary children. We will continue to plan, develop and implement in-service training teams to conduct building workshops. Continued implementation of Career Education workshops for public and parochial teachers, counselors and administrators, will be a priority item in Saint Paul.

Major Goals for Saint Paul in Three Years

Teachers will begin to write instructional units infused with career education.

This will be done either by providing a substitute or allowing the teachers to work during off hours or during vacation time. The career education staff will work closely with these teachers to insure that the units reflect community resources, media (slides, cassettes, etc.) and
that each unit will be current and relevant.

Field testing of career oriented instructional units.

Preparations are now being made by the teacher who prepared the unit and at least one other teacher at the same level to test the usability of the unit. The third party evaluators will also be involved at this point with a pre-post instrument.

Distribution of field tested units.

The validated units will be duplicated and made available for distribution to public, private and parochial educational facilities. Their availability will be publicized after successful field testing.

Development and Implementation of Educational Television Series on Elementary Career Education.

A series of 15 minute television productions are being developed by our staff for viewing by metropolitan elementary school children in public, private and parochial schools.

Planning for Two New Career Oriented Secondary Schools.

The career education staff will continue to meet regularly with our advisory council and the planning committees of our soon to be erected schools to guarantee its basic career orientation.

To establish a close working relationship with the Minneapolis Career Education Staff.

We have established a regularly scheduled inter-city career education meetings to share ideas and promote dialogue. This report will provide our students with metropolitan wide career orientation. This will also allow us to mobilize community resources without regard to artificial city boundaries.
EXHIBIT 6.2.2

SAINT PAUL EVALUATION NEEDS

Following is an outline of evaluation needs for 1975-76, including evaluation questions and suggested methods of measurement:

**Gemini Thrust**

**Community Resources**
- a) Was there increased staff awareness of community resources available through the Career Education Department?
  - Measurement: Teacher interview and/or survey.

- b) To what extent did staff in the Gemini cluster utilize community resource services?
  - Measurement: Log

**Media**
- Was career-oriented media developed for primary, intermediate, junior high, and high school as a result of career education support services?
  - Measurement: Product for evaluation

**Curriculum**
- a) Was a coordinated curriculum program developed and implemented?

- b) Were appropriate career education instructional materials for each level developed by Gemini staff with assistance of the Career Education staff?
  - Measurement: Product for evaluation

- c) Were teachers in the target cluster involved in inservice workshops and other orientation to Career Education strategies and concepts?
  - Measurement: Evaluations of workshops, logs

- d) Did the staff make itself and resource materials readily accessible to teachers in Gemini?
  - Measurement: Teacher interview, staff log

**District Thrust**

**Curriculum**
- a) To what extent were teacher developed materials utilized by staff in the district?
  - Measurement: Staff Log.
b) Was attention given to needs of minorities and women as related to Career Education materials and programs?  
Measurement -- Staff log, product

c) Were in-service workshops provided to enable teachers to open communication with large and small businesses?  
Measurement -- Staff log, evaluations of workshops

Community Resources
Was there initial and recurring contact with community and business organizations?  
Measurement -- Staff log
TO: "THE WOMAN IN THE GRAY FLANNEL SUIT" SEMINAR ATTENDEE:
FROM: LOUISE LOCKETZ AND JEAN DUKER
RE: FOLLOW-UP QUESTIONNAIRE

Last summer you attended the Career Education seminar entitled "The Woman in the Gray Flannel Suit". Because of your interest we would appreciate you answering the following questions:

1. Would you suggest a similar seminar this summer? 
   - (Yes) 60%
   - (No) 40%

(We would appreciate your suggestions regarding the format.)

2. Are you more aware of non-sexist materials in your teaching area since you attended the seminar? 
   - (Yes) 75%
   - (No) 25%

3. Have you changed any teaching materials or methods to make them non-sexist?
   - (Yes) 69%
   - (No) 31%

If so, what kinds of changes have you made?

4. Have you done any projects emphasizing women's contributions and changes in the woman's role in today's society?
   - (Yes) 31%
   - (No) 69%

5. Are there materials that you have used or seen that would be helpful in the women's study area? Please list and/or share copies, if possible.

6. What have you done to reduce sex-role stereotyping?

7. Have you shared any of the information that you gathered last summer with any other staff members? 
   - (Yes) 81%
   - (No) 19%

If you want to expand on any of your answers to these questions, please feel free to do so. Answering this questionnaire will be most helpful as we plan another seminar this summer.

Please return this questionnaire to us via school mail: c/o Career Education Resource Center--Victoria School

Thank you!

P.S. If there are ways that the Career Education Department can be of any help to you, please call us at 488-6761.
Your evaluation of the Chamber of Commerce/Career Education Department Seminars is important. This is not a test. There are no right or wrong answers.

DIRECTIONS: Using the following scale, please record your feelings by circling the appropriate number.

<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Uncertain</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The objectives of the seminar were clearly stated.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2. The seminar presentations contained new material...</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3. The seminar met my expectations.......................</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
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<tr>
<td>4. The seminar increased my knowledge of the St. Paul business community.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5. There was a good balance of large and small group activity</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
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<tr>
<td>6. There has been an increase in community involvement in my classroom as a result of the seminar....</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
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<tr>
<td>7. Students have benefitted from my attendance at a seminar.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>There should be more interaction between the schools and the community</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
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<tr>
<td>8. I would recommend attending a Career Education seminar to a colleague...........</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
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<tr>
<td>9. Are Career Education materials available in your school?</td>
<td>(Yes)</td>
<td>(No)</td>
<td></td>
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<tr>
<td>10. Does your school have a Career Resource Center?</td>
<td>(Yes)</td>
<td>(No)</td>
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<tr>
<td>11. Do students use the Career Resource Center?</td>
<td>(Never)</td>
<td>(Occasionally)</td>
<td>(Frequently)</td>
<td></td>
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<tr>
<td>12. Do you refer students to the Career Resource Center?</td>
<td>(Never)</td>
<td>(Occasionally)</td>
<td>(Frequently)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. Have you used the service(s) of the Career Education Resource Center at Victoria School? If your answer is YES, please specify service(s) used. Service(s)</td>
<td>(Yes)</td>
<td>(No)</td>
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<tr>
<td>14. Are there ways in which the Career Education Resource Center staff can be of help to you? Please specify, using the reverse side, if necessary.</td>
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Please return this survey in the enclosed envelope by MAR 15 1976.

THANK YOU!
SAINT PAUL PUBLIC SCHOOLS CAREER EDUCATION RESOURCE CENTER

QUESTIONNAIRE: CAREER EDUCATION SERVICES, Spring, 1976

DIRECTIONS: Your taking a few moments now to provide the information requested will be appreciated.

The following are services available from the Career Education Staff at the Career Education Resource Center, 1610 North Victoria. Please indicate if you have utilized any of these services and if you would like further help in any area.

<table>
<thead>
<tr>
<th>SERVICES:</th>
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<th>HOW HELPFUL? (Please circle)</th>
<th>WOULD LIKE (MORE) HELP?</th>
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<tr>
<td>Films</td>
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<tr>
<td>Filmstrips and Cassettes</td>
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<tr>
<td>Commercial Materials</td>
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<td>1 2 3 4 5</td>
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<tr>
<td>Posters</td>
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<td>Kits</td>
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<tr>
<td>Bibliographies</td>
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<tr>
<td>Career Education Handouts (Activity ideas)</td>
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<td>Career Education Newsletter</td>
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<td>Bulletin Board Ideas</td>
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<td>Career Education Related Units</td>
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<td>St. Paul teacher-developed</td>
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<td>Staff Assistance in Planning and Implementing Career Ed activities</td>
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<td>Resource People</td>
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<td>Simulations/Role-Playing</td>
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<td>Career Fair</td>
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<td>Classroom Presentation</td>
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<td>Seminar/Workshop</td>
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<td>Career Related Materials</td>
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<td>1 2 3 4 5</td>
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</table>

- How else might the staff be of assistance?

- Would you cite a particularly successful career education activity in which you and your students have been involved?

Please return to: Career Education Resource Center
Victoria School
1610 North Victoria
St. Paul, Minnesota 55117

THANK YOU! 64
EXHIBIT 6.3.1
PURPOSES AND GOALS OF
MINNEAPOLIS CAREER EDUCATION PROJECT

Summary portions of the Minneapolis project overviews, including purposes and goals, pertaining to the second year's evaluation, are presented in this Exhibit.

MINNEAPOLIS PURPOSES AND GOALS

Purposes

The basic plan for the Minneapolis Schools is to establish a framework for the infusion of career development into the existing K-12 curriculum. The Minneapolis project will focus on in-service training to develop knowledge and skills among counselors and teachers to help them implement a career education program.

Major Goals for Minneapolis in Three Years:

. To establish a framework for the infusion of career development into the existing K-12 curriculum.

. To establish a career guidance program designed to complement the curriculum in developing in each student positive attitudes about the world of work and assisting the student in developing career decision making skills.

. To provide teachers, both elementary and secondary, with in-service time to prepare them to implement in to their own classrooms career education techniques, concepts and materials.

. To train a cadre of teachers and counselors who will assist a continued in-service training of other teachers and counselors in the district.

. To provide teachers and students with current and comprehensive information regarding careers, life-styles and career opportunities.

. To facilitate cooperation between schools, community and manpower agencies in providing a career-oriented program for students.

. To facilitate cooperation between teachers, counselors and administrators in providing a career-oriented program for students.

. To identify and adapt curriculum materials which fit the career development curriculum framework.
MINNEAPOLIS EVALUATION NEEDS

Following is an outline of preliminary evaluation needs for 1975-76, including evaluation questions, suggested methods of measurement, and evaluator assistance requests:

Evaluation Question No. 1: Were in-service workshops in career education held for Minneapolis administrators, counselors, and elementary and secondary teachers?

1)a. Measurement - A log book of workshops kept by project staff indicating number of participants and content of workshop. It is anticipated that 210 staff members will participate in eight separate workshops.

1)b. Evaluator Assistance - Determine content of log book and summarize data.

Evaluation Question No. 2: How did the participants in the in-service workshops react to the conduct, content, and activities of the workshops?

2)a. Measurement - Post-program workshop reaction questionnaire for the participants.

2)b. Evaluator Assistance - Help revise the brief questionnaire that has been used in the past, and summarize data.

Evaluation Question No. 3: Did the workshop participants show increased knowledge and understanding of concepts related to career education?

3)a. Measurement - Pre-workshop and post-workshop test

3)b. Evaluator Assistance - Help revise existing measures, determine most appropriate post-test dates, and to analyze the data.

Evaluation Question No. 4: Did the workshop participants show improved attitudes toward career education?

4)a. Measurement - Pre-workshop and post-workshop attitude survey. Record of voluntary participation of workshop participants in career education activities after the workshop.
4)b. **Evaluator Assistance** - Help develop attitude survey, develop record system, determine appropriate post-test date, analyze data.

**Evaluation Question No. 5:** To what extent did workshop participants engage in career education activities after the workshop (classroom, curriculum development, community contacts?)

5)a. **Measurement** - Either continuous records kept by staff or follow-up survey.

5)b. **Evaluator Assistance** - Determine most appropriate measurement technique and analyze data.

**Evaluation Question No. 6:** What other in-service activities were conducted or coordinated by the Minneapolis Public School career education project?

6)a. **Measurement** - Record of activities.

6)b. **Evaluator Assistance** - Help devise record system and summarize data.

**Evaluation Question No. 7:** To what extent was the Career Education Resource Center in the Project Office used by Minneapolis staff and students, and how useful was the Resource Center to the users?

7)a. **Measurement** - Record of participation; brief questionnaire to participants.

7)b. **Evaluator Assistance** - Help devise record system, develop brief questionnaire, and summarize data.

**Evaluation Question No. 8:** Did the project staff make contacts with community and business organizations?

8)a. **Measurement** - Record of contacts kept by project staff.

8)b. **Evaluator Assistance** - Develop record system and summarize data.

**Evaluation Question No. 9:** Did the students who participated in intensive classroom activities show improved knowledge, awareness, and attitudes regarding career education?

9)a. **Measurement** - Pre-test and post-test measures for about 16 classroom (4 classes at grades 3, 5, 9, and 12,) totaling about 400 to 480 students.

9)b. **Evaluator Assistance** - Help with clarification of cognitive and affective objectives, identification of appropriate measures, training of teachers who will administer tests, and analysis of data.
CAREER DEVELOPMENT TEST

Read each question carefully and circle your response on the answer sheet.

1. The term "career" is best defined as:
   a) a paid profession or occupation
   b) a series of paid professions or occupations
   c) all long-term roles paid or unpaid
   d) don't know

2. Career Education and Vocational Education means the same thing. The foregoing statement is:
   a) true
   b) false

3. It is anticipated that by 1980 only two out of ten jobs in America will require a college degree. The foregoing statement is:
   a) true
   b) false

4. How many times does the average worker change jobs in his/her working career?
   a) 1 - 2 times
   b) 3 - 4 times
   c) 4 - 5 times
   d) 5 - 7 times or more

5. Career education is not training for a particular job; but a process that helps students make career decisions.
   a) true
   b) false

6. Career education may be infused in the curriculum of all subject areas, K - 12.
   a) true
   b) false

7. The Minneapolis Career Education project is designed to increase students' awareness of the many occupations found in society and to decrease their ignorance of the world of work through systematic exposure to workers and work places.
   a) true
   b) false

8. The career education movement is primarily oriented to meeting our most pressing manpower needs. The foregoing statement is:
   a) true
   b) false
9. In Minnesota, the 1972 MSAT showed that our graduating seniors were unaware of what percentage of jobs for which they qualified.
   a) 30%  
   b) 50%  
   c) 70%  
   d) 90%  

10. To facilitate an individual's occupational choice by a process of narrowing down the myriad of possible occupations to a smaller group of similar type of jobs is the purpose of the:
   a) four career education models  
   b) eight elements of career development  
   c) school based career education model  
   d) fifteen job clusters of the United States Office of Education  
   e) none of the above

11. What percentage of the children in elementary schools today will be employed in jobs that do not exist today?
   a) 20%  
   b) 40%  
   c) 50%  
   d) 80%  

12. Women compose 40% of the work force in the United States.
   a) true  
   b) false

13. In order for an 18-year old to enroll in a technical or skilled trade program at a Minnesota area vocational-technical institute, they would have to pay tuition of:
   a) $750 a year  
   b) $600 a semester  
   c) $75 a month  
   d) none of these

14. The number of individual occupations in the United States is
   a) decreasing  
   b) about 5,000  
   c) about 10,000  
   d) above 30,000

15. Approximately how many area-vocational technical schools are there in Minnesota?
   a) 0 - 10  
   b) 11 - 20  
   c) 21 - 30  
   d) more than 30

16. The Minneapolis and St. Paul Career Education projects are jointly funded.
   a) true  
   b) false

17. Each individual because of special interests, abilities, and educational opportunities is best suited for:
   a) one job  
   b) a group of jobs  
   c) most jobs  
   d) any job of interest

18. In Minneapolis (alone) the number of unfilled jobs is approximately equal to the number of people seeking work.
   a) true  
   b) false
EXHIBIT 6.3.3

19. Helping our students prepare for and understand the future is one important element of the Minneapolis Career Education program.
   a) true
   b) false

20. The career stereotyping process deals with
   a) women
   b) men
   c) both of the above
   d) none of the above
Please take a few minutes to complete this brief survey regarding the implementation of Career Education concepts, during the current school year. The results will be used to help evaluate the existing Career Education program and to support planning for the future. Then, for each activity, indicate whether you spent more, less, or the same amount of time this year compared with last year.

Your Name ____________________________ Grade/Subject ____________________________

For this school year, estimate the average frequency with which you have been using each of the following techniques and activities related to career education. There is room at the end of the list for you to add other activities you may have been using.

**Activities**

<table>
<thead>
<tr>
<th>Frequency Of Use</th>
<th>Compared To Previous School Year</th>
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<tbody>
<tr>
<td>Nearly Every Day</td>
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<td>About Once a Week</td>
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<td>About Once a Month</td>
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<td>A Few Times During Year</td>
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<td>Not Applicable To My Students</td>
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<tr>
<td>Same</td>
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<tr>
<td>More</td>
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</table>

1) Integration of Career Education into my curriculum

2) Use of Career Related Activities as: films, filmstrips or multimedia kits; field trips; resource people; group discussion on careers or job opportunities; career related units; worker interviews; career related displays or bulletin boards

3) Are you involved in self-awareness activities with your students such as: values clarification, DUSO or SRA, interest inventories, self-awareness units, role playing

4) Help from or joint planning with the career education staff

5) Use of library or career center, career related materials

6) Other

7) Other

Please Turn to Page Two...
TEACHER OPINIONS

Using the following scale, please record your opinions by circling the number corresponding to your answer:

1 = if you strongly agree with the statement
2 = if you agree with the statement in general
3 = if you are uncertain about your feelings
4 = if you disagree with the statement
5 = if you strongly disagree with the statement

1. The goals of the career education program in the Minneapolis schools are clear to me
2. The career education program should involve all students and all teachers
3. A sound career education program should emphasize the use of community resources outside the classroom
4. A career education program should enable students to explore preferences to a depth desired
5. My role as a teacher is that of a facilitator of learning rather than an information giver
6. The interviewing of adults by students is a vital part of the career education program
7. The career resource staff and office are open and willing to help me

I feel that career education activities have helped the majority of my students:

a) become active rather than passive learners
b) increase their understanding of major occupational fields
c) stimulate thought about career choices that are realistic
d) view education as a continuous process
e) relate school subjects to knowledge and skills needed in the world of work
f) clarify misconceptions and stereotypes about certain occupations
g) understand the importance of the 3R's in both school and work

I believe that the school guidance counselor should be involved in the career education program:

a) in conducting group discussions
b) in providing materials
c) in individual student's conferences
d) in assisting teachers integrate career education information
e) in arranging for resource persons and career educational trips
f) Other

Please Turn to Page Three......
- Do you feel you understand the term "Career Education?"
  Yes____ No____ Not Sure____

- Would you rather see career education taught as a separate element of the curriculum instead of trying to integrate it into other subject areas?
  Yes____ No____ Not Sure____

- Do you know who to go to for assistance in planning and implementing career education activities?
  Yes____ No____ Not Sure____

- Have you utilized the materials and/or concepts developed during the workshops?
  Yes____ No____ Not Sure____

- What factors, if any, would influence you in increasing your involvement in the implementation of career education activities in your school?
  ____________________________________________________________
  ____________________________________________________________
  ____________________________________________________________

- What suggestions can you make for improving the implementation of career education concepts at your grade level or subject area?
  ____________________________________________________________
  ____________________________________________________________
  ____________________________________________________________

- What do you think are the biggest problems in implementing career education activities at your grade level or subject area?
  ____________________________________________________________
  ____________________________________________________________

THANK YOU!
NAME

STAFF POSITION

PLEASE GIVE A BRIEF DESCRIPTION OF ACTIVITIES, MATERIALS USED OR MEETINGS ATTENDED.

MONDAY

TUESDAY

WEDNESDAY

THURSDAY

FRIDAY

PLEASE RETURN TO PROJECT ADMINISTRATOR THE FOLLOWING MONDAY.
(USE OTHER SIDE OF SHEET IF NEEDED)
<table>
<thead>
<tr>
<th>Materials</th>
<th>By Whom</th>
<th>School</th>
<th>Date Taken</th>
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EXHIBIT 6.3.7
CAREER EDUCATION STUDENT SURVEY, SPRING, 1976

DIRECTIONS: Please mark the face that shows how you feel. There are no right or wrong answers. Example:

I wish they would serve ice cream at school.

1. Mathematics is important to people who work.
2. I would like to see films about how things are made.
3. I would like to grow up and have the same type of job as my mother or father.
4. Students should be taught about jobs in school.
5. School should teach me things I can use on a job.
6. My job is being a student.
7. I like myself.
8. I am too young to think about what I want to do when I grow up.
9. I get along well with my classmates.
10. I feel good about the decisions I make in school.
11. I enjoy interviewing workers in our classroom.
12. I like to visit businesses and workers outside of school.
13. I do some things well that would help me on a job.
14. I would like to work at a job when I finish school.

THANK YOU!