This first phase of an exemplary career development project in Maryland included the following seven action programs, each with general and specific goals and objectives: (1) a team approach at selected junior high schools involving counselors, home economics, and industrial arts teachers, (2) use of a full-time resource consultant in five elementary schools, (3) development of a computerized job placement information system intended especially for senior high students, (4) a cooperative work experience program for 21 potential dropouts between the ages of 14 and 16, (5) planning and implementing a statewide instructional television series, (6) developing a notebook with career education ideas for educators, and (7) information dissemination. This first annual report was written by a third-party evaluation team. This formative evaluation included extensive program descriptions, program forms, and recommendations. The overall project goals, which included the development of self-awareness, career awareness, decision-making skills, and career transition abilities, are successfully being accomplished. (AG)
The research reported herein was performed pursuant to a contract with 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.

U. S. Department of Health, Education and Welfare

Office of Education
Vocational and Technical Branch
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The Maryland Career Development Project

First Annual Report

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Introduction

This report was written by a third party evaluation team in accordance with the provisions of the Federal Register Volume 35, Number 143, July 24, 1970, entitled Research and Training, Exemplary and Curriculum Programs in Vocational Education. Under section 103.45 program accountability and evaluation procedures a third party shall determine the effectiveness of the program by considering the following points.

1) The extent to which the objectives of the program or project have been accomplished.
2) What factors either enabled or precluded the accomplishment of the 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.

The first two points require evaluation strategies which would describe the discrepancy between the expectations and actual performance. Accordingly at the outset it was considered appropriate to review the objectives as stated by (1) DHEW and (2) as in the proposal submitted by the leaders from the Maryland State Dept.

1. The broad objectives for exemplary projects, as stated in the guidelines of DAVTE Policy Paper No. AVL-V70-1, October 2, 1969 are as follows:

   1. Provisions for broad occupational orientation at the elementary and secondary school levels so as to increase student awareness of the range of options open to them (students) in the world of work.

   2. Provisions for work experience, cooperative education and similar programs, making possible a wide variety of offerings in many occupational areas.

   3. Provisions for students not previously enrolled in vocational programs to receive specific training in job entry skills prior to the time that they leave school. (Some of these training programs might be very intensive and of short duration).
4. Provisions for intensive occupational guidance and counseling during the last years of school and for initial placement of all students at the completion of their schooling. (Placement might be in a job or in post secondary occupational training. Placement should be accomplished in cooperation with appropriate employment services, manpower agencies, etc.).

5. Provisions for the grantee or contractor to continue the program on with the support from regular funding sources after the termination of the Federal assistance under Part D of P.L. 90-576. (Federal assistance under Part D cannot exceed three years).

Under Part D, Congress defined the purpose of exemplary programs and projects: "to stimulate through Federal financial support, new ways to create a bridge between school and earning a living for young people, who are still in school, who have left school either by graduation or dropping out, or who are in post-secondary programs of vocational preparation, and to promote cooperation between public education and manpower agencies."

Guided by the above policies the Maryland State Department of Education's Interdivisional Task Force on Career Development developed a series of objectives. From the objectives operational procedures and the resources to attain the objectives were determined. The procedures were included in the total project identified as the Maryland Career Development Project (K-Adult).

The Maryland Career Development Project* provides for several programs or activities of an exemplary nature which are designed to facilitate the process of career development, by accomplishing or demonstrating one or more of the following objectives:

1. To help individuals develop a positive self-concept and a greater degree of self-understanding.

2. To help students learn about and understand the range of educational and career opportunities presently available and that are likely to be available in the future.

* The Maryland Career Development Project was approved by the Maryland State Board of Education in March, 1970, for submission to the U.S. Office of Education. The project was approved for funding by Contract No. OEC-0-70-5186(361) under the provisions of Part D (Exemplary Programs) of the Vocational Education Amendments of 1968, and began operation in June, 1970.
3. To help students develop and use the decision making process more effectively.

4. To help individuals make smoother transitions at key points during their career-life, such as the transition from school to further training or to work.

The Maryland Career Development Project will:

A. Provide a resource person in career development to work with the teachers and counselors in five elementary schools in Baltimore City and devise procedures, programs, and materials which will:
   
   (1) Help youngsters learn more about themselves and see themselves positively.
   
   (2) Help youngsters learn more about the world of work and to relate this knowledge to their work in school.

B. Develop a workshop for teams of junior high school counselors, teachers, administrators, and specialists in which they can learn about the concept of career development, and work together in planning career exploration programs for their own school.

C. Develop a comprehensive information system which will utilize various media, along with computer and microfilm technology in making available various kinds of information about education, training, and employment opportunities. This system should strengthen the existing placement process, thereby enabling students to make a smoother transition from school to the world of work or further education or training.

D. Work with neighborhood employers and community agencies in developing a work-oriented program for drop-out prone students. The program is designed to set up interaction between students, the school, and the community in such a way that students learn a variety of skills related to employability and people in the community learn more about the school's programs.

E. Produce a television series of approximately fourteen thirty minute programs which will be oriented towards students in grades 4-8. The primary purpose of the series will be to facilitate the career exploration process.

F. Develop a State career development resource notebook for educators.
G. Conduct a state-wide conference devoted to the concept of career development, its objectives and programs.

To achieve the above goals seven major components or action projects were designed each with a set of terminal objectives which were to be implemented.

The discrete major components were:

A. Junior High School Component
B. Elementary School Component
C. Computer Interactive Learning System Component
D. Work Advocate Component
E. Instructional Television Series Component
F. Career Development Notebook
G. State Wide Dissemination Conference

The multiple objectives of the components were analyzed for congruency with the stated terminal objectives of the proposal and conditions expected and set forth by the U. S. Office of Education. At the outset the third party evaluation team did recognize the objectives of the components and the planned strategies of implementation to be appropriate. Appropriateness was determined by interacting with all staff leaders of the components, reviewing implementation activities and alternate strategies for achieving the goals.

Role of the Evaluation Team

The third party evaluation team included a director of evaluation and an assistant. A non-directive objective posture was assumed, the team identified and collected performance information, and after analysis reported differences or discrepancies with the objectives set forth by the component leaders and overall project administrators. Input from the evaluation team often led to the problem solving and decision making processes in which corrective actions were developed by consensus of all staff and administrators.

The evaluation team had positive acceptance and assurance that the on-going formative evaluations provided would be considered and that the input, if appropriate and if accepted by consensus, would serve the process of adjustment, change and development. The emotional climate for this function was found to be favorable. It was experienced that most leaders of components did change actions and intermediate goals where performance was at variance with goals. Known changes have been continuously, made by consensus, resulting in new priorities and corrective actions in accord with the objectives.

This report is written and organized in the order of the major components as presented above.
The formative evaluation process also included:

A. Identifying and defining needs to meet established goals.

B. Collecting descriptive information and data about field activities.

C. Guiding internal or self evaluation within each component.

D. Conducting liason activities between the field operations and the administration. Reporting discrepancies and promoting group consensus in deciding corrective actions and alternate strategies.

E. Reviewing and evaluating the process, interim products such as lesson plans, units of study, activities and content of cognitive expectations.

F. Relating the component objectives to:
   Input resources and conditions
   Process treatment and transactions
   Output products and performance

G. Wherever possible identifying cause of program deficiency and promoting consensus and assuring channels of communication, and also assisting in obtaining authoritative consultants, etc. for making judgments about problems.
INTRODUCTION

The Maryland Career Development Project included an exemplary program within selected Junior High Schools designed with the expectation to achieve the following objectives:

a. To bring together counselors, home economics, and industrial arts teachers so that they might learn about and develop skills applicable to the career exploration process.

b. To assist these teams in working together to create a plan for their own schools.

c. To supervise plan implementation which might result in model implications for career exploration programs throughout the State.

Rationale for the selection of industrial arts and home economics teachers to form the triad with counselors was supported by the existence and acceptance of experiences unique to these two disciplines which could enhance the guidance dynamic with manipulative activities. Facilitation of a team approach to career exploration for all students was seen as realistically achieved through the pooling of both content philosophy and skill.

An advisory committee was formed with a membership of State Department specialists, county supervisors, and university personnel. Expertise in each of the three areas was thus assured and employed through three contributing groups. Both tacit and explicit contracts were drawn between the Maryland State Department of Education; the Division of Vocational-Technical Education; and the Department of Industrial Education, University
of Maryland, under the funding aegis of the Statewide Career Development Project. In May of 1970, letters over State Superintendent James A. Sensenbaugh's signature were sent to all county superintendents inviting team applications. Response came from seven schools, representing five districts including Baltimore City. Of these, seven teams were able to participate, with one of these teams reduced to a membership of one, the counselor, because of certain circumstances.

**PLANNING**

It was determined by the advisory committee that the participants would become immediately involved in work-simulation tasks, role-playing, and action-oriented research. In a partial departure from traditional lecture format, staff members would assume both keynoting and consulting roles as the workshop progressed. Because the workshop's stated goal was the pooling of three disciplines to effect a workable plan for each school, it was decided that the exposure of all participants to a novel group experience would provide a baseline for team unity and innovation, and also demonstrate one of many techniques which the team might employ in the school setting. The first week was thereby selected to accomplish this group experience, while the second week would contain both additional small group activity and planning sessions for the custom-designed product of each team.

Members of the committee stated the following terminal and intermediate objectives for workshop participants who would finally implement strategies and activities in their schools.
SHORT-TERM OBJECTIVES...TO BE REALIZED AT WORKSHOP'S CONCLUSION

THE TEAM MEMBER WILL..........

1. Acquire a broader understanding of the world of work through the assumption of the multiple roles of today's worker; i.e. producer, consumer, distributor, conveyor, manager, craftsman, designer, assembler, analyst, personnel worker, safety director, cost-accounting, maintenance, etc.

2. Identify the contribution he can make toward the provision of similar role toward this acquisition by playing experiences for his students.

3. Recognize the value of a team approach to career development.

4. Recommend the curriculum changes which would facilitate this team approach.

5. Suggest means which involve the total parent/business/industrial community in this plan.

6. Effectively relate school subjects to broad vocational skills.

7. Justify career exploration for all junior high students.

LONG-TERM OBJECTIVES...TO BE PURSUED IN THE OPERATIONAL SETTING

THE TEAM WILL..........

1. Demonstrate its commitment to career exploration by encouraging total school support through inservice meetings.

2. Open its program potential to all school staff members who wish to become affiliated with it.

3. Find means of motivating students toward self-knowledge through a checks and balances system of interests vs. aptitudes.

4. Provide opportunities to all students for reality-testing in a multi-disciplinary setting which emphasize actual task involvement.

5. Enlist and involve members of the parent and business-community in an ongoing process of curriculum enrichment.
6. Develop decision making skills by permitting students to engage in sequences of wishing, trying, taking consequences, and evaluating their performances.

7. Prepare those students for differentiated skill development while permitting them to delay, change, or postpone declarations of occupational choice.

8. Plan learning experiences which are meaningful to students from a variety of socio-economic and intellectual backgrounds.

9. Evaluate its impact upon the student body, the school staff, and the community at large by assessing its goal proximity in behavioral terms.

Workshop Activities  A brief description of the input and process of training teachers for career exploration work is provided. However, interested persons should contact the Director of the project for more detailed information, schedules, content, etc.

At the outset of the workshop an attempt was made to evaluate the knowledge, opinions and attitudes of the participants. Following were keynote addresses by distinguished consultants from the three areas involved.

The next two days were devoted to the formation of a simulated company and the naming and clarification of the associated product. Role assignments were made and researched, and participants interviewed their "counterparts" in industry. Culmination of effort was realized in a line-production scheme demonstrating both the interdependence of workers upon one another and a hands-on experience resulting in a tangible product. The first week concluded with review of information acquired, open discussion, and the additional input from teachers in the field who had used still other techniques to involve student groups in exploratory activities.
Activities concentrated upon extended periods of team planning, a walking tour of the College Park area businesses, and further demonstrations of human and material re-source, which could be applicable in operational settings.

On the last day participants gave both oral and written reports to the group at large. These reports exemplified a team commitment to action and were distinguished by their ingenuity and practicality. In addition, participants reported the professional and personal gains they had realized from the association with members of other discipline areas.

Three evaluative instruments were then administered to all participants. One was a replication of the questionnaire on attitudes and priority concerns. The other measures provided an estimate of cognitive gains, behavioral changes, and expressed merits of the workshop.

The third party evaluator made an external evaluation by 1) making an analysis of the stated objectives built into the workshop goals, 2) extracting elements and sub-elements from these objectives, 3) categorizing these elements into cognitive and effective expectations, and 4) constructing reactive type items. See appendix A.

All the data gathered were considered as being used for a formative rather than summative evaluation. Discrepancies and directions for improvement were sought. All expectations were tempered with the known limitations of the short duration of the workshop.
Non-obtrusive evaluation techniques were also employed. For a more detailed account of the evaluation findings a Progress report is available from the director of the project.

The discrepancy information obtained from the evaluation provided input for planning on strategies of how to meet the needs of the teachers as they return to their schools to implement the strategies for achieving the career exploration objectives.

As an example:

On September 29, 1970, the Advisory Committee met to review the activities and reported discrepancies of the workshop and to engage in a formative type of evaluation and planning. Descriptive and quantitative data were studied. Input from committee members included reports on the status of plan implementation at several schools. Numerous problems of communication, scheduling, public relations, and budgeting emerged. Many of these problems were accurate reflections of those predicted earlier by the participants. Responsibility for corrective actions were delegated and time schedules for resolution were made.

Testimony was brought forth to the fact that visible evidence of plan operation had been observed in most schools. A need for real and immediate support from the Advisory Committee members was reportedly expressed by individual team members. Advisory group consensus was thereby stated as an assumption of responsibility for assisting the teams in devising strategies to engage the total school and community. In responding to the
very real concern of the participant teams; how to do it, as opposed to what to do, committee members resolved to:

a. make themselves available to schools during and between scheduled visits whenever possible,

b. recommend specific human and material resource which might apply to individual school team's operation,

c. plan for subsequent workshops by employing data derived from this experience as baseline for improvement, and

d. communicate, share and disseminate new innovative activities that best meet planned objectives.

Staff members arranged scheduled visits to each of the teams' home schools. Continuous contract between the evaluator, staff, and team members served the formative process where immediate adjustments were made when discrepancies occurred.
Evaluation Method

It was decided by the evaluator (consensus was obtained) that during the formative process of the project no attempt would be made to use rigorous quantitative methods. The approach to evaluation was guided by suggestions from readings found in the book Discrepancy Evaluation by Malcolm Provus. The role of the evaluation team has been stated (at the beginning of this paper). Evaluation proceeded by (a) defining and redefining expectations (b) identifying discrepancies between program activities (performance) and specific goals and (c) providing program managers with discrepancy information for decision making. The methods of evaluation resorted to by the evaluation team included presence at all staff meetings and conferences, obtrusive and non-obtrusive data collection techniques, interviews, monitoring, check lists, informal conversations with staff and students, oral and written progress reports, and inventory sheets and questionnaires. See appendix B.

Four developmental stages and their contents were observed. These included, 1) Design 2) Installation 3) Process 4) Product 5) Program comparison. Evaluation of each of the above stages proceeded by comparing the stated expectations (goals) with actual performance.

Provus, M. Discrepancy Evaluation for Educational Program Improvement and Assessment, Berkley, California, 1971, McCutchan Publishing Co.
Each Junior High School was considered separately in light of the objectives they set forth for themselves and which were, by consensus, determined to be in accord with the total project objectives.

Plan of Presentation

In the following pages of this chapter each Junior High School involved in the project is reviewed by the presentation of:

1. demographic data
2. the team objectives (goals)
3. randomly selected activity or activities used to implement objectives (process)
4. randomly selected software (products)
5. data from students where available (products)
6. evaluation and findings based on discrepancy between goals and performance
7. some recommendations.

The decision was made that within this evaluation the names of the schools, administrators and teachers (should remain anonymous as much as possible) would be omitted.

School A Demography

The city within which this school is located has a population of one million. It has heavy industry, shipping, large corporations of every type down to small stores of commerce and individual entrepreneurs. These industries provide employment for people of many ethnic groups. While the school has
open enrollment to all, its student body totals 2450 and is all black. It was estimated that 35% of the students enter college. The average salary of the parents is $4,500.00, ranging from people on welfare to professional occupations. The curriculum is mainly general education with offerings in vocational education and industrial arts. The vocational and industrial arts programs do not have the full complement of laboratories as usually found in schools designed for these programs. The students involved in this project were in the grades 7 thru 9.

Team A Objectives

Team A as well as others, adopted the objectives suggested in the Career Development Workshop as realistic, long-term goals that they will pursue as a team. These objectives were as follows:

THE TEAM WILL ...........

1. Demonstrate its commitment to career exploration by encouraging total school support through in-service meetings.

2. Open its program potential to all school staff members who wish to become affiliated with it.

3. Find means of motivating students toward self-knowledge through a checks and balances system of interests vs. aptitudes.

4. Provide opportunities to all students for reality-testing in a multi-disciplinary setting which emphasizes hands-on-experience.

5. Enlist and involve members of the parent and business community in an on-going process of curriculum enrichment.
6. Develop decision-making skills by permitting students to engage in sequences of wishing, trying, taking consequences, and evaluating their performances.

7. Prepare those students for differentiated skill development while permitting them to delay, change, or postpone declarations of occupational choice.

8. Plan learning experiences which are meaningful to students from a variety of socio-economic and intellectual backgrounds.

9. Evaluate its impact upon the student body, the school staff, and the community at large by assessing its goal proximity in behavioral terms.

Specific Objectives for Limited Numbers of Students in 1970-71

It is expected that during the school year 1970-71, the main thrust of the plan will center around four eighth grade classes. Each will be tested for attitudes and career knowledge early in the year. Two of these classes will be a control group, while the other two will have greater career exploration opportunities through line production, role playing and other means. Near the end of the school year evaluation of the two groups will be done.

It is intended that this plan will be implemented by means of the proposals we have suggested for staff and community involvement:
Objectives of Pupils

The pupil will ..........

I. Identify feelings about one's self by
   A. Taking inventory tests
   B. Participating in group counseling sessions and individual interviews

II. Identify present career attitudes by
   A. Taking inventory tests
   B. Participating in group discussions

III. Develop career attitudes by
    A. Going on field trips
    B. Interacting with resource people
    C. Using audio-visual aids and other media

IV. Experience decision making by
    A. Choosing a role for line production
    B. Planning and operating a company
    C. Conducting a production line
    D. Electing subjects for study in the 9th Grade
    E. Selecting industries, businesses, and educational institutions to visit
    F. Planning and executing culminating activities

V. Evaluate attitudes and information gathered about careers by
   A. Retaking inventory tests
   B. Interacting with the control group through quizzes, games, panels, etc.
   C. Displaying an exhibit(s) of information gained about some careers in some industries, businesses and service areas
"Working Together with Staff."

I. Acquainting the faculty with the "Career Exploration" concept and its place in our junior high school
   A. Present the program and share our summer workshop experiences with members in our department at first departmental meeting.
   B. Prepare a showcase displaying materials pertinent to career exploration.
   C. Present the program to the faculty at a faculty meeting.
      1. Use slide segments on careers from the Guidance Department, University of Maryland, at another meeting.
      2. Conduct a question and answer period.
   D. Use video tape about production line from our workshop this summer at a subsequent meeting.

II. Enlisting the cooperation of the faculty and staff in developing and carrying out the program.
   A. Discuss detailed plans with department heads in the administrative council meetings.
   B. Ask for time at departmental meeting to exchange ideas of career exploration in other disciplines.
   C. Request that faculty members from other disciplines work in conjunction with the "Career Exploration" program in the following ways:
      1. Help pupils in executing projects or assignments about career as it pertains to their disciplines.
      2. Help in planning tours to business, industry or other places,
      3. Request that they give some career emphasis to trips which they will take in their disciplines.
         a. Provide pupils with questions we and they would like to know about the occupation of people who work at place being visited.
b. Provide teachers with forms on which pupils could record the information they learned from workers while making their visitation.

4. Request that faculty answer a questionnaire or submit suggestions about student needs.

5. Encourage faculty members to gather some information about a career which they are unfamiliar with to bring home importance of career development as a part of the school program.

III. Utilize faculty members or other staff members who have avocations in business, industry, services, etc. in the following ways - Ex. part-time realtor, insurance salesman, etc.

A. Use as consultants for pupils who wish to interview them about their avocations.

B. Make materials available to pupils and faculty re: the avocation.

C. Arrange for visits to their companies.
Establishing Connections with the Community

A. Parents:

1. Give presentation to PT. ... the concept of career exploration at the junior high level.

2. Consult with parents to determine their view of pupil needs in career exploration.

3. Involve parents in presenting information about their careers to students, by bringing parents to school to talk about their jobs. Take pictures of them on the job when possible.

4. Take pupils to visit businesses and professional establishments owned by parents.

5. Ask parents to arrange for visits by pupils to businesses and industry where parents are employed.

6. Invite parents to accompany pupils and teachers on field trips to business and industry.

7. Make available career information and counseling to parents interested in helping their child to make intelligent career choices.

8. Develop materials for general distribution to parents and for use by parents who come to the school to seek information.

9. Invite parents to observe line production.

B. Business, industry and local government:

1. Arrange for some occupational inquiries to be made on all field trips from the school. Provide guidelines and questionnaires for teachers for this purpose. Collect reports from teachers about information they gathered.

2. Develop material on our school career exploration program as a selling technique to enlist the cooperation of industry.

3. Consult with business and industry to determine their views of students needs in career exploration.

4. Invite business and industry people to visit for assembly programs, to aid in classroom career exploration and to sit in on planning sessions for school-wide program in career exploration.
5. Encourage business and industry to provide opportunities for students to work part time and/or observe the type of work in their situation.

6. Enlist cooperation of business and industry in developing a visual presentation (likely slides) for pupils about variety of career opportunities.

7. Collect career development histories of local people who have entered professional, management or other successful positions through vocational education, as opposed to college prep courses in high school followed immediately by college. Group some of these people into a speaking group or panel to present this to students, teachers and parents.

8. Role play a government day through the social studies and/or English department where students have interviewed government leaders to better understand their jobs.

9. Contact the Youth Opportunity Center to see how we might work together on career exploration.

C. Schools - Senior High Vocational:

1. Arrange return visits by ex-students of our school--include those one or two years out of junior high and those who may have left earlier and have found success in a vocation. Have them explain their high school program and their personal development formally in assemblies and/or informally in home economics and industrial arts classes.

2. Collect questions by junior high students to ask of senior high students. Obtain answers by interviews. Some of our pupils may go to senior high school to interview pupils for answers.

3. Develop slide presentations of senior high vocational programs.

4. Continue field trips by students to senior high programs. Encourage teachers to accompany the students to familiarize themselves with the program.

D. Community as a Whole:

Set up a part-time and summer employment bureau--possibly including some job training. (Baby-sitting--part of home economics, lawn trimming, etc.

This could be in the school and could be partially manned by students.
PROPOSED SPECIFIC COMMUNITY CONTACTS

Industry - Westinghouse, Sandra East, Equal Opportunities Coordinator, will bring Living Witness Program for 9th graders and/or 8th graders. Tour to meet with middle management personnel and product workers

Glenn L. Martin - Tour to meet with middle management personnel and production workers and observe the production line in action

Business - Some owned by parents and teachers of our pupils

Northwest Protective Agency
Morton Loving and Transfer Co.
Insurance
Fulton Animal Hospital
Real Estate

Business in the Community -

Shopping Center - Salesmanship
Florist - Flower arrangement for home management class
Catering service
Baking company

Services and Institutions-

Druid Health Center
Sinai-Druid Health Center
Mt. Zion United Methodist Church - Day Care Center
Additional Objectives Career Exploration in Home Economics/Clothing and Textiles

School A

The students will

1. Describe their feelings about careers and occupational fields.

2. Have the opportunity to explore a wide range of career alternatives and to familiarize themselves with vocational choices.

3. Be exposed to career alternatives through direct contact with people who exemplify these alternatives.

4. Obtain knowledge of occupational fields which are related to Home Economics.

5. Begin to develop those competencies necessary to perform in the working world.

6. Apply gained knowledge and skills of clothing construction to the line products of an accessory and novelty enterprise.

7. Use principles of safety in carrying out the design and construction of the product.

8. Produce goods to be sold in the manner decided by the class and to dispose of these in accordance with real distributive practices.

9. Identify the role and need of English, math, science, geometry and other studies in the various careers.
Additional Objectives of the Industrial Arts Teacher

School A

Manufacturing.

Objectives:
1. To review the history of manufacturing.
2. To learn the important part manufacturing plays in our economic freedom.

What to make.

Objectives:
1. To learn how ideas grow.
2. To determine what projects could be manufactured in the school shop.

How to make it.

Objectives:
1. To learn how to analyze a job or project intelligently.
2. To study the problem of how best to produce the project of your choice.

Production methods.

Objectives:
1. To stimulate thinking about the designing of tools to accomplish multiple production.
2. To learn the advantages of using production methods when producing large numbers of articles or parts.

Plant layout.

Objectives:
1. To learn the need for, and advantages of, efficient plant layout.
2. To study a means of determining what tools and equipment are needed for production.
3. To find the best possible plant layout for the manufacture of a product.

Personnel.

Objectives:
1. To learn how the personnel of a manufacturing concern is organized for efficient production.
2. To learn the importance of being a dependable worker.
3. To study the qualifications of a supervisor or foreman.
The business end.

Objectives:
1. To study the important cost elements of raw materials, labor, and overhead.
2. To appreciate the American free-enterprise system from both the manufacturer's and retailer's viewpoints.
MAKING MEMORANDUM PADS

OBJECTIVES

1. To learn simple fundamental operations found in production bookbinding.
2. To acquaint the student with many of the basic materials.
3. To acquaint the student with the basic tools and templates of mass production.
4. To learn the process of production assembling.
5. To learn the method of making and personalizing the pads.

COST TO MAKE PADS

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>RAW MATERIAL</td>
<td>$0.18</td>
</tr>
<tr>
<td>DIRECT COSTS (LABOR)</td>
<td>$0.25</td>
</tr>
<tr>
<td>INDIRECT EXPENSES</td>
<td>$0.10</td>
</tr>
<tr>
<td>TOTAL COST</td>
<td>$0.63</td>
</tr>
<tr>
<td>PROFIT</td>
<td>$0.12</td>
</tr>
<tr>
<td>MANUFACTURER'S PRICE</td>
<td>$0.75</td>
</tr>
</tbody>
</table>

Number of projects sold.....68 x $0.75 = $51.00
Cost to make
Profit

$16.00
$35.00
Additional Objectives Career Exploration in Child Care

The student will .............

1. Interview and observe the various workers and agencies involved in the care of children.

2. Identify the possibilities of teenage employment in the child care field.

3. Apply their knowledge of the characteristics of young children in designing a toy or toys suitable for them.

4. Use principles of safety in designing toys for children.

5. Demonstrate the role of one or more production personnel in role playing the operation of a toy company.

6. Carry out this role based upon principles of good organization.

7. Produce toys to be distributed in a manner decided upon by the class company.

8. Identify some feelings about herself by evaluating her role in the class company with the help of fellow students, the counselor and the teacher.
BOUTIQUE COMPANY
Materials List

<table>
<thead>
<tr>
<th>Quantity</th>
<th>Description</th>
<th>Price</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>dozen Giant jump rings</td>
<td>.60</td>
<td>23.40</td>
</tr>
<tr>
<td>4</td>
<td>dozen loops</td>
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<td>1.60</td>
</tr>
<tr>
<td>8</td>
<td>pkg. Plastic beads</td>
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<tr>
<td>2</td>
<td>pkg. eyes</td>
<td>.29</td>
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<td>pkg. sew-on sequins</td>
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<td>.58</td>
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<tr>
<td>1</td>
<td>pkg. sew-on jewels</td>
<td>.39</td>
<td>39.21</td>
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## BOUTIQUE COMPANY

### Materials List

**American Trimming House**

<table>
<thead>
<tr>
<th>Quantity</th>
<th>Description</th>
<th>Unit Price</th>
<th>Amount</th>
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</thead>
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<tr>
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<td>large &quot;Sobos&quot;</td>
<td>1.25</td>
<td>2.50</td>
</tr>
<tr>
<td>54</td>
<td>yds. #16 assorted colored grosgrain</td>
<td>.35</td>
<td>18.90</td>
</tr>
<tr>
<td>32</td>
<td>yds. #19 assorted colored grosgrain</td>
<td>.15</td>
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</tr>
<tr>
<td>25</td>
<td>yds. #5 assorted colored grosgrain</td>
<td>.10</td>
<td>3.75</td>
</tr>
<tr>
<td>10</td>
<td>yds. #3 assorted colored grosgrain</td>
<td>.00</td>
<td>1.00</td>
</tr>
<tr>
<td>8</td>
<td>yds. #7767 Braid</td>
<td>.15</td>
<td>1.20</td>
</tr>
<tr>
<td>4</td>
<td>yds. straw braid</td>
<td>.10</td>
<td>.40</td>
</tr>
<tr>
<td>2</td>
<td>strings pearls</td>
<td>.50</td>
<td>1.00</td>
</tr>
<tr>
<td>8</td>
<td>yds. silver and gold braid</td>
<td>.10</td>
<td>.80</td>
</tr>
<tr>
<td>4</td>
<td>yds. #40 grosgrain</td>
<td>.40</td>
<td>1.60</td>
</tr>
<tr>
<td>½</td>
<td>yd. gold and silver trim</td>
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<td>1.00</td>
</tr>
<tr>
<td>1</td>
<td>yd. daisy chain</td>
<td>.80</td>
<td>.80</td>
</tr>
<tr>
<td>1</td>
<td>spray 913 Black Eyed Susan</td>
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<td>14.40</td>
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<tr>
<td>2</td>
<td>pkg. eyelets</td>
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<td>pkg. 11671 trim</td>
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**HORSTON SCHENK AND COMPANY**

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<tr>
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<td>3¿Beltine</td>
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<td>14.40</td>
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<tr>
<td>42</td>
<td>Cord Braid</td>
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<td>8.40</td>
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<tr>
<td>100</td>
<td>Brass Tips</td>
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<td>10.00</td>
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</table>

**Total**

\[ \$44.80 + \$39.05 = \$83.85 \]
<table>
<thead>
<tr>
<th>Item Description</th>
<th>Quantity</th>
<th>Unit Price</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Trimming House</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 large</td>
<td></td>
<td>1.25 ea.</td>
<td>2.50</td>
</tr>
<tr>
<td>54 yds. #16 ass't colored grosgrain ribbon</td>
<td></td>
<td>.35 ea.</td>
<td>18.90</td>
</tr>
<tr>
<td>32 yds. #9 ass't colored grosgrain</td>
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<td>.35 ea.</td>
<td>8.00</td>
</tr>
<tr>
<td>25 yds #5 Ass't colored grosgrain</td>
<td></td>
<td>.15 ea.</td>
<td>3.75</td>
</tr>
<tr>
<td>10 yds #3 ass't colored grosgrain</td>
<td></td>
<td>.10 ea.</td>
<td>1.00</td>
</tr>
<tr>
<td>8 yds. #7767 braid</td>
<td></td>
<td>.15 ea.</td>
<td>1.20</td>
</tr>
<tr>
<td>4 yds. straw braid</td>
<td></td>
<td>.10 ea.</td>
<td>.40</td>
</tr>
<tr>
<td>8 yds. silver and gold braid</td>
<td></td>
<td>.10</td>
<td>.80</td>
</tr>
<tr>
<td>2 strings pearls</td>
<td></td>
<td>.50 ea.</td>
<td>1.00</td>
</tr>
<tr>
<td>½ yd. gold and silver trim</td>
<td></td>
<td></td>
<td>1.00</td>
</tr>
<tr>
<td>4 yds. #40 grosgrain</td>
<td></td>
<td></td>
<td>1.60</td>
</tr>
<tr>
<td>1 yd daisy chain</td>
<td></td>
<td>.80 yd.</td>
<td>.80</td>
</tr>
<tr>
<td>1 spray 913 Black Eye Susan</td>
<td></td>
<td></td>
<td>.40</td>
</tr>
<tr>
<td>2 pkg. eyelets</td>
<td></td>
<td>.20 ea.</td>
<td>.40</td>
</tr>
<tr>
<td>1 pkg. #11671 trim</td>
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<td></td>
<td>.65</td>
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<tr>
<td>1 pkg. beads</td>
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<td></td>
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</tr>
<tr>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
School A: Randomly Selected Activities

It was evident to both evaluators that the team in this school was capable of initiating programs in the field which demonstrated learning gained in the workshop. At their return to work in the fall they conducted an all school faculty assembly with the full support of the administration. At this assembly the team presented the concept of career exploration to the faculty. This was reinforced by a slide-tape, depicting activities engaged in during the summer workshop. Interest (not generalizeable) was evident by the questions from the floor. Handouts were distributed which explained the goals and purposes of the thrust of career exploration.

The initial team consisted of a Guidance Counselor, Home Economics teacher and an Industrial Arts teacher. To carry out their activities they interested and involved five other teachers ("Synapse Effect") quite early in the school year.

Under the guidance of the Industrial Arts teacher students elected to form a company specializing in making products of the communication industry. The students planned the company, organized themselves for role playing positions in board of directors, management, staff production and distribution. (See figure 1) Stocks were sold to students within the school and the "Memorandum Pad Company" began to initiate its production phase. The print shop in the school became the center for activities, however by the nature of the activity the English, art, typing, home economics, guidance and other teachers and students became involved. Students interviewed their counterparts in industry,
FIGURE I
STUDENT ORGANIZATIONAL CHART ROLE PLAYING
Junior High School A

BOARD OF DIRECTORS
1. R.Mc.
2. K.S.
3. J.A.
4. K.S.

GENERAL MANAGER - G.R.

PLANT MANAGER - D.R.

PUBLIC RELATIONS DIRECTOR - P.D.
PERSONNEL DIRECTOR - A.R.

PRODUCTION MGR. & IND. ENGINEER - K.W.
QUALITY CONTROL ENGINEER - I.S.

COMPTROLLER - W.G.
LEGAL COUNSELOR - A.T.

MARKETING DIR. - M.W.
RESEARCH ED. & TRNG. DIR. - D.R.

PROCUREMENT DIR. - K.C.
SAFETY DIR. - K.C.

DESIGN ENGINEER - P.D.
MAINT. DIR. - K.W.

MINE SUPERVISOR - G.R.

UNION STEWARD - D.D.
PRODUCTION WORKERS - D.D.
reported back to the class and company of their findings. Guest speakers and field trips were used to obtain a further understanding of the work activities within a printing firm. The students manufactured memo pads using the mass production technique which they planned and implemented. The profits of the project from sales were distributed to the stockholders and the remains were used to purchase a new piece of equipment for the shop.

Under the guidance of the home economics teacher the girls planned, organized and implemented a boutique company manufacturing neck and waist accessories by mass production methods. They played all the roles necessary in management, production and sales. The production was later diversified when a local manufacturer of children's toys requested information about children's preferences in toys. To determine these preferences the girls of the home economics class began a product research experiment. Head start children were used as experimental and control groups. This led to the study of another dimension of careers, namely child care.

The guidance counselor provided supportive services to the project. The setup role playing experiences for employee-employer relationships, recorded these and provided analysis of and information for improved behaviors. She initiated and maintained a continuous flow of living witnesses from the community who reported and discussed the world of work.

Software

Slides were made of the boys and girls in performance of the various activities of the Junior High Component. Sound tapes were made which contain informative material for role playing as a
person seeking employment and an employer. The teacher provided taped analysis of the words used, expressions made and appearances.

Instruction sheets, job sheets, outlines of units of study, tests developed for internal evaluation records, printed forms produced by the students will all expedite the expansion of activities and program replications. No system has been arranged to reproduce or make these available for dissemination.
**Evaluation School A.**

At the beginning of the school year the evaluator set out to obtain a base line of information relevant to the understandings and attitudes of children at school A. By rather informal discussion of randomly selected students in the program data such as presented below were recorded.

<table>
<thead>
<tr>
<th>Question</th>
<th>Would you eventually like to work in the printing industry?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Answer</td>
<td>I don't know.</td>
</tr>
</tbody>
</table>

Q: Why did you take this course in print shop?  
A: My friends told me it is different and pretty good.

Q: Do you know how a book is made?  
A: Yes — No, not how a book is made.

Q: Can you operate or do you know what these machines do? (Lead cutter & binding press)  
A: No.

Q: Do they use this kind of equipment in industry?  
A: I don't know but maybe they do.

Q: Do you know anyone or did you ever speak to someone who works in the printing industry?  
A: No.
The program was monitored at various intervals. However, near the end of the school year the same student was asked questions similar to those at the beginning of the year. The student said that on the basis of his experiences he would not like to do some of the jobs he experienced and saw performed in the printing plants visited. He said his experiences were very interesting and that he thinks he would like to be a salesman of printed products. His role in the company was in production and sales but he felt he would be happier with the latter. He displayed a great knowledge and skill relevant to the machines he was questioned about. Other students interviewed reacted variously. Some thought that they would go into the printing industry to earn some money to go to college. A student reported that he would enter the printing industry if he finds college not to his expectations or abilities. Another said that his experience as the personnel director was to his liking and that he would be, with the proper education, employable by many industries.

On the basis of such information and observations the evaluators of the project report that the objectives set forth have been variously attained.

Using non-obstrusive tactics such as informal conversations with teachers befriended and the role of the project evaluator concealed it was found that further work must be done with the faculty at large to promote an understanding of the project. Some only heard of the project at the beginning assembly but never were involved further or learned about the specifics. This was taken to indicate that what this team did with involving other teachers was good but that there remains a lot of work ahead.
COMPOSITE EVALUATION FORM

SCHOOL A

INITIAL EVALUATION

FINAL EVALUATION

<table>
<thead>
<tr>
<th>Inadequate</th>
<th>Weak</th>
<th>Minimal</th>
<th>Average</th>
<th>Good</th>
<th>Excellent</th>
<th>Superior</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1</td>
<td>2</td>
<td>2.5</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

Team Interaction
Planning Stages

Ability Developing
Program alternatives compatible
with goals

Serendipity, on the
spot innovations
meeting goals

Flexibility to adjust
when discrepancies
identified

Internal Evaluation
by Component Teachers
"Synapse Effect"
extending out to
other subject areas
and teachers

Pupil Acceptance

Parent and Community
Involvement

Local Administrative
Support

Adequacy of funds and
materials

ERIC

Product generated
program software
Recommendations:

For the purposes of further refinement of the project it is recommended that:

1. Next year's efforts should incorporate students of lower academic standing, and those with academic difficulties.
2. Objectives of a multidimensional nature such as the self concept, self perception and other self constructs should be defined.
3. Objectives should be refined, the use of immediate and intermediate objectives leading to ultimate objectives, or some other hierarchical scheme should be attempted.
4. The team develop cognitive, effective and motor test items to move evaluation from the formative to the summative type.
5. Administrators within schools revitalize their supportive role and explore the possibilities of obtaining financial support.
6. An organized effort be made to refine the program software for the utilization by other teachers and schools.
School B Demography

This junior high school is in a suburban setting where the working parent(s) are away from home most of the day. The population was estimated at 5000. It is composed of ninety-eight percent white, one percent black and one percent other. The average salary was reported to be $20,000 per annum. The occupations were categorized as 50% government, 25% professional and 25% business entrepreneurs.

The estimated number of students who go through this school and ultimately enroll into college was 87 percent. The total curriculum is college preparatory. There are no vocational offerings. Home Economics and industrial arts are offered on a limited scale.
School B, Randomly Selected Activities

The school team consisted of a Guidance Counselor, Home Economics teacher and an Industrial Arts teacher with the counselor serving as coordinator for the team. The team undertook a number of projects and the team rated (on an evaluation report) teacher interest in the project varying from nominal to excellent. The team did not expand its membership during the first year. Administrative support was rated very high by the team, but they noted a decreasing enthusiasm about the venture because of some difficulties related to the local administration of funds for the project.

The Guidance Counselor initiated a careers exploration project seventh graders and eighth graders. Students, sometimes working in pairs or small groups, selected an occupation to study. They researched the area in depth using available literary sources, site visitation to near-by facilities and an interview with persons in the field selected for study.

A published occupational study form (bibliographical data unavailable, but in workshop archives) was used as a guide for personal contacts, and students photographed their interviewee and aspects of his work and the job setting. Later the pictures in the form of slides were arranged in sequence and a narrative script was composed and taped by the students to form a slide-tape presentation. The slide-tape project was presented to the class by the individuals and groups responsible for each and a class interaction between class members and presenters was led.
by the counselor. The evaluation team witnessed such a presenta-
tion and discussion period. They found the class highly motivat-
ed by the experience and noted a high level of involvement
through questions asked and in depth discussions of the prese-
tation.

A number of slide-tape presentations depicting a variety of
career opportunities were developed and the products remain on
file in the school counselor's office for later use by classes
or individuals on request. The counselor's supervision of the
project with assistance from the Home Economics teacher resulted
in a wide representation of career possibilities.
COMPOSITE EVALUATION FORM
SCHOOL B
INITIAL EVALUATION  ---  FINAL EVALUATION

<table>
<thead>
<tr>
<th></th>
<th>Inadequate</th>
<th>Weak</th>
<th>Minimal</th>
<th>Average</th>
<th>Good</th>
<th>Excellent</th>
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<td>2</td>
<td>2.5</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

Team Interaction
Planning Stages

Ability Developing
Program alternatives compatible with goals

Serendipity, on the spot innovations meeting goals

Flexibility to adjust when discrepancies identified

Artificial Evaluation by Component Teachers
"Synapse Effect" extending out to other subject areas and teachers

Pupil Acceptance

Parent and Community Involvement

Local Administrative Support

Adequacy of funds and materials

Products generated program software
School C Demography

The enrollment of this junior high school was 1100; this included students in grades six through nine. The population of the community was approximately 4000, where 85 percent were white and 15 percent black and other. The enrollment mix was about the same. The geographic setting enables one to classify the community as being a satellite suburb of the Nation's Capital.

Forty-five percent of the working people are with the government, thirty-five percent are in the broad categories of industrial-technical and business and where twenty percent have professional occupations. The average salary was $18,000 per annum.

It was reported that ultimately eighty percent of the students enter into college. The programs offered in this school are college preparatory and general education. There are no courses in vocational education; however, there are minimal offerings in industrial arts, business courses and home economics.
School C Randomly Selected Activities

On their return from the summer workshop team members introduced the career program to students in a series of counselor led meetings with small groups. The team plan was discussed with teachers by grade level team leaders. These activities were followed by a survey of student knowledge of their parents' occupations and students' interests. Team planning characterized the early school session. A variety of projects was discussed and evaluated at this time.

This school team generated a variety of projects. The involved the use of 8th and 9th graders who served as academic tutors for students in nearby elementary schools. The counselor organized the program with the assistance of community agencies and arranged for bus transportation for the tutors from their junior high school to the feeder elementary schools. The school librarian and one of the reading teachers acted as consultants and several persons from community agencies assisted the student tutors on occasions. Regular weekly meetings of the tutors were conducted for planning and evaluative purposes. The project permitted experience in teaching and social assistance activities to use as a touchstone for their own expressed interests. Both boys and girls were involved as tutors.
COMPOSITE EVALUATION FORM
SCHOOL C
INITIAL EVALUATION
FINAL EVALUATION

<table>
<thead>
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<th>Inadequate</th>
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<th>Minimal</th>
<th>Average</th>
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<th>Superior</th>
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<tbody>
<tr>
<td>0</td>
<td>1</td>
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<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

Team Interaction
Planning Stages

Ability Developing
Program alternatives compatible
with goals

Serendipity, on the
spot innovations
meeting goals

Flexibility to adjust
when discrepancies
identified

In-ternal Evaluation
by Component Teachers
"Synapse Effect"
extending out to
other subject areas
and teachers

Pupil Acceptance

Parent and Community
Involvement

Local Administrative
Support

Adequacy of funds and
materials

Products generated
program software
School D Demography

This is one of the two junior high schools included in this project with a rural setting. The population of the community was 7500 whereas the enrollment of the school was 1050.

Forty-six percent of the population is white and fifty-four percent are black and other. The average salary of the working group is $6500. Some earn as low as $3000; some as high as $20,000. Employment is in boat building, fishing, foods, agriculture and labor in small industries.

Twenty percent of the students eventually enter into college. The curriculum is mainly general education with token courses in home economics and industrial arts. Placement into vocational technical education at the ninth grade is attempted.
School D Randomly Selected Activities

This team generated a variety of projects throughout the school year. Their efforts stimulated the enthusiasm and participation of a large number of teachers in their activities. The original team consisted of the Guidance Counselor, Home Economics teacher and two Industrial Arts teachers.

In one project involving 120 eighth graders, boys and girls organized a fictional company which developed a product utilizing an assembly line approach. Both boys and girls researched worker personality characteristics and job hierarchies within several job areas (manufacturing, construction, food services and textiles), before deciding to study in depth the manufacturing industry.

After studying the organizational structure of the industry, they role played on an alternating basis the various positions from the board of directors to laborers. They experienced the actual work processes through simulation and hands-on experience in the production of a single product.

The Industrial Arts teachers guided this project through all its stages, utilizing at-hand resources, including films, current pamphlets and books. Guest speakers from the community visited the school and pupils made visits to local facilities, including the regional Vocational Technical Center.

Another project involved nine teachers from the faculty, a local 4-H representative and supervisors from the central school
office. Utilizing the products created in the regular Home Economics classes, students organized a fashion display during the early part of the school year. The school team guided the project through its stages of planning, study, organization, implementation and evaluation with the cooperation of the administration and many school departments. Many of the boys and girls engaged in this project were not initially involved in the item production. Girls entered the school's industrial arts facilities on a voluntary basis for assistance and instruction in working with materials and equipment. On a self-evaluating form the team rated faculty and parental response to the project activities as a four on a continuum scale from one through five. A summary evaluation form generated by the evaluators follows.
<table>
<thead>
<tr>
<th>Category</th>
<th>Evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Team Interaction Planning Stages</td>
<td></td>
</tr>
<tr>
<td>Ability Developing Program alternatives, compatible with goals</td>
<td></td>
</tr>
<tr>
<td>Serendipity, on the spot innovations meeting goals</td>
<td></td>
</tr>
<tr>
<td>Flexibility to adjust when discrepancies identified</td>
<td></td>
</tr>
<tr>
<td>Initial Facilitation by component teachers, &quot;sympo effect&quot; extending out to other subject areas and teachers</td>
<td></td>
</tr>
<tr>
<td>Pupil Acceptance</td>
<td></td>
</tr>
<tr>
<td>Parent and Community Involvement</td>
<td></td>
</tr>
<tr>
<td>Local Administrative Support</td>
<td></td>
</tr>
<tr>
<td>Adequacy of funds and materials</td>
<td></td>
</tr>
<tr>
<td>Products generated program software</td>
<td></td>
</tr>
</tbody>
</table>

Evaluation Scale:
- Inadequate: 0
- Weak: 1
- Minimal: 2
- Average: 2.5
- Good: 3
- Excellent: 4
- Superior: 5
School E Demography

In a rural setting this high school includes junior high and senior high classes. The total enrollment is near 600. The population of the town is 1800. The main curriculum is general education. There are two home economics teachers and two industrial arts teachers. One course in vocational education is offered.

The major industry is agriculture with some emphasis on fruits. Three months out of the year there is an influx of migrant workers. No industries are in or within the town limits. Serious limitations for grounding career explorations in reality are present.

It was reported that fifty-six of the graduates ultimately enroll into college.
School E, Randomly Selected Activities

The three member team consisted of the school Guidance Counselor, Home Economics teacher and the Industrial Arts teacher. The project conducted was selected and organized by the Home Economics teacher and was a replication of experiences gained at the summer workshop.

Students from an eighth grade class formed a baking company and produced a bakery product by line production techniques. Research was done by the boys and girls comprising this Home Economics class; students role played the upper echelons of the industry, sold stock in their company to finance the venture, produced and packaged the product and sold it to students and teachers. Dividends were issued to stockholders and the company was dissolved.

Students were involved in research, mainly through the use of reference materials available in the school library and counselor's office. Some interviews were conducted outside the school but these were limited by virtue of the small community. Input from the industrial arts teacher was minimal, thereby preventing replication of the strategies which were designed to implement the objectives. The recommendations provided should be seriously considered by the Advisory Council and staff to realign this situation.
## COMPOSITE EVALUATION FORM

**SCHOOL E**

**FIRST EVALUATION**

**SECOND EVALUATION**

<table>
<thead>
<tr>
<th>Inadequate</th>
<th>Weak</th>
<th>Minimal</th>
<th>Average</th>
<th>Good</th>
<th>Excellent</th>
<th>Superior</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1</td>
<td>2</td>
<td>2.5</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Team Interaction Planning Stages</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Ability Developing Program alternatives compatible with goals</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Serendipity, on the spot innovations meeting goals</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Flexibility to adjust when discrepancies identified</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>External Evaluation by Component Teachers</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>&quot;Snapco Project&quot; extending out to other subject areas and teachers</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Pupil Acceptance</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Parent and Community Involvement</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>LOCAL Administrative Support</th>
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</thead>
</table>

<table>
<thead>
<tr>
<th>Adequacy of funds and materials</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Products generated from software</th>
</tr>
</thead>
</table>
School P - Demography

This junior high school is located on the periphery of the nation's capital. It is a satellite suburb where the working parent(s) commute to the city. Within the geographic limits live 15,000 people. The range of income is $10,000 to $25,000. Seventy percent of the parents are government or government related employees. Five percent are in varied commercial offices, five percent in their own business and twenty percent in varied industrial roles. Ninety-eight percent of the population is white, two percent is black.

The curriculum is mainly college preparatory with minimal offerings in industrial arts, home economics and vocational education. It was reported that 83% of the students enter college. Presently the enrollment is 1000 students.
School F, Randomly Selected Activities

Students in Home Economics classes studied careers in the food services area and selected ways to develop a project that would generate both specialized and wide student appeal. A chef's club was organized for boys only with the purpose of interesting boys in the food services industry. The club accepted members from all grade levels. Related to this project as a spin-off activity was the construction of a cookbook. This project drew on members of the Mathematics, English and Science departments as consultants. Field trips were conducted to hotels, motels and wholesale and retail outlets for food products.

The integrated approach to a project including the combined team lagged. Long term absences by one of the team members for reason of illness prevented progress towards the realization of the goals. The team lacked leadership and the insight for developing alternative strategies.

The school programs are conducted on a modular schedule system. Team members reported to the evaluator that this prevented joint activities. One team member will not return to perform professional duties in 1971. Special attention and effort from the assistant project director is needed to direct the remaining team members and training of a new one.
<table>
<thead>
<tr>
<th>Inadequate</th>
<th>Weak</th>
<th>Minimal</th>
<th>Average</th>
<th>Good</th>
<th>Excellent</th>
<th>Superior</th>
</tr>
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<tbody>
<tr>
<td>0</td>
<td>1</td>
<td>2</td>
<td>2.5</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

- **Team Interaction Planning Stages**
- **Ability Developing Program alternatives compatible with goals**
- **Serendipity, on the spot innovations meeting goals**
- **Ability to adjust when discrepancies identified**
  - Focused attention
  - Agreement Teachers
  - Improved effects extending out to other subject areas and teachers
- **Pupil Acceptance**
- **Parent and Community Involvement**
- **Local Administrative Support**
- **Adequacy of funds and materials**
- **Notes generated as needed**
Recommendations General

1. The vast array of materials required for implementing the projects require resourcefulness in procurement. Leadership was needed to help identify new resources when teams exhausted their budgets.

2. Teams such as A and B should be considered for the possibility of assuming leadership roles in various school. Acting as cadre for blocks of time they can become catalysts to overcome inertia. Infusion of ideas that call for change may be done more effectively by "outside" teachers. It is expected that four team leaders will not be with the project.

3. The possibilities of establishing a "within the state student exchange program" should be explored. The geographic location and limited socio-economic nature of some school communities provide little if any possibility for grounding the career studies in reality.

4. Broad base career exploration strategies should be worked out which include the Cluster Concept Approach to studying related occupations within a career area. Of special value would be the specific objectives, task analysis and analysis of tasks into human requirements.

5. The standards, goals objectives need to be made more specific. Stated in behavioral terms these specifics can serve as standards to evaluate the program performance more effectively. The program staff needs to review priorities for next year with a consideration of
student needs. The program teams should provide the
evaluation team with objective test items measuring the
expected behaviors, e.g., to form a test bank with a wide
range of multiple choice items. Much work needs to be
done on redefining objectives purporting to be concerned
with the self-concept.

6. New strategies (activities) and clearly stated content,
along with those attempted this year, need be evolved for
improving congruence with stated objectives. The best
innovations should be evolved in a precise language and
be "packaged" for purposes of being replicated.
Statement

The Career Exploration Project activities were deemed to have the potential of becoming vigorous catalysts for promoting relevance to academic subjects. It was concluded that the third party evaluation team observed changes of behavior of the students, teachers and administrators of the project. Student changes of behavior of cognitive abilities, of broadened interests and performance skills were observed. The leadership from the state level provided continuous guidance with increasing effectiveness.

The inadequacies and inability to fully resolve some of the existing problems or to fully achieve all objectives should not in any measure be taken as reasons to remove the program from a school but rather that which is known to be sound and effective should be retained and that which was found faulty provide a further challenge to the formative process.
Projected Plans

Prior to the termination of the spring school term of 1971, the project director and the specialist in pre-vocational education made plans and proceeded through all appropriate channels for implementing a second workshop experience in career exploration.

The description of the plans presented below, is extracted from the bulletin issued over the signature of the State Superintendent of Schools, James Sensenbaugh. The bulletin was mailed to all superintendents within the state.

"The purpose of the workshops is to provide a team of five faculty members with the skills, opportunity, and motivation to develop a career exploration plan for their school. It is hoped that these plans will then be implemented, evaluated, and, if effective, incorporated into your total educational program. These workshops expand last summer's team membership of a counselor, a home economics teacher and an industrial arts teacher to include two new members: the mathematics teacher and a newly elected fifth content area representative:"

"Please have your supervisors of home economics, industrial arts, guidance, mathematics and curriculum and/or instruction nominate teams of five from those junior high schools considered representative of the schools in your county. Each workshop is limited to five teams and will be operated on this team basis to more effectively relate workshop product to later assessment."
CRITERIA FOR SELECTIONS:

1. Participants must apply as a team of five from a given school, (i.e. counselor, industrial arts teacher, home economics teacher, mathematics teacher and a school-elected fifth team member.)

2. Participants applying from outside the 50-mile radius must do so with the knowledge that they will be assigned to a double room on campus.

3. Participants will be selected to obtain broad geographical sampling, socio-economic variations within districts, and rural-urban balance.

COURSE DESCRIPTION:

Weeks One and Two: Teams of consultants will present theoretical rationale and operational models appropriate to the maturational level of the student population which will be served. Participants will move in an action setting which will involve them in role-playing and work simulation experiences designed to incorporate inception, process, decision, and product. Participants of each discipline will assume and research roles and experiences in which his colleagues and advisors have provided expertise. Community and industry will be engaged and involved in order to provide a fuller dimension of exploration.

Week Three: Participants will create a plan which can be applied in their own school districts. This process will be built, step by step, on the foundations of workshop experience, subject matter proficiency of team members, and the teams' assessment of realistic goals. The product is seen as a written plan which is immediately operational and provides for ongoing evaluation in the school setting.

After all the candidates were selected, the first three week session was composed of five teams. The second session had four teams. There was no duplication of trainees from any county. The nine teams all came from nine different counties. Combining last years teams thirteen different counties and Baltimore have been involved. The diffusion or synapse effect was well planned.

A 1971 Career Exploration Workshop report will be forthcoming after the completion of the two-three week workshops. It
is expected that by contrast there will be strong evidence to the formative process of the project.
Elementary School Career
Exploration Component

Overview - A resource person with experience and training in the field of elementary school teaching worked with five elementary schools in the Baltimore city school system to assist individual teachers in making school instruction more relevant to the exploration of future careers. This resource person was available on a full time basis to act as a consultant to teachers, to survey the community to develop and catalogue resources available to them and children, to introduce teachers to some techniques of presenting programs, materials and ideas, and to help evaluate the organized programs ultimately selected by those teachers for use in their schools. In a statement of philosophy and purpose, Mrs. A., the resource person for this project, included the following statements.

Philosophy and Goals

"The purpose of public education may be stated broadly as twofold: (1) to assist the individual learner to achieve his greatest self-development in order to enhance his own life; and (2) to further the good society by promoting the established and tested values of the culture in a framework which allows for change.

Observing that our society is in process of technological and sociological evolution, we must recognize that we are operating at the interface of change. We must, therefore, provide the best of our heritage of the past and anticipate the possible futures that the rising vectors of change will produce and which our young people must soon face."

In order to provide these learnings it was deemed necessary to provide a program that would reach all children on a continuous basis, beginning at the earliest level (kindergarten) and continuing through their entire school career. Such a program would
focus on the different developmental needs of children at the various school levels and provide learning experiences congruent with their needs and abilities at each of these.

The objectives of this component were stated as follows:

1. To develop positive attitudes toward work, specifically,
   a. the need to work
   b. the dignity of all work
   c. the need to derive a sense of satisfaction from work
   d. the inter-relationship of jobs and interdependence of workers

2. To provide students with information about a variety of occupations;

3. To assist students to better understand themselves;

4. To provide students with a more realistic view of the world of work;

5. To assist students to understand the decision making process and provide training and experience in decision making.

Background

A cursory survey conducted by the elementary resource personnel of existing practices in the elementary schools of this geographic area revealed that career information was greatly fragmented throughout the curriculum and most often taught in isolation from potentially relevant instructional areas. Further, attention to career development, the world of work and the real world relevance of school subjects was seen as primarily dependent upon the enlightenment and motivation of individual teachers. No planned, coordinated and articulated program throughout the grades was discernable in practice. Sources of information and resources, where located, were usually scattered and only partially accessible.
Compounding this difficulty was the average teacher's limited background in the world of work. Frequently teachers, particularly elementary school teachers who have evolved through the educational system, have been systematically cloistered within academia and only peripherally in contact with the outside working world. Thus, even incidental learning about the world of work that might otherwise be gained by students tends to be inhibited through this educational encapsulation of the teacher.

There were 50 elementary school counselors in the 164 elementary schools of the city who were available to work with elementary school youngsters. These counselors placed their greatest programatic interest primarily on the 6th graders preparing for the junior high schools. There are undoubtedly exceptions to this observation and no systematic evaluation of elementary school guidance practices has been attempted in connection with this component. Some traditional practices bearing on career development may be observed. Field trips are a standby practice contributing to the child's first-hand understanding of the world. To derive the greatest benefit from such experiences, however, pre- and post-trip activities are necessary. Observations suggest that these are rarely conducted systematically.

These observations are not to disparage the many caring teachers who carry on with minimum assistance or direction in those areas. But with the burden of an expanding curriculum, additional new projects and the need to keep abreast of new teaching trends and systems it seems virtually impossible for them to realize a uniform and systematic set of purposes without
direction and assistance. This project was envisioned as a means to provide and evaluate a structure realizing a career exploration program at the elementary school level. Further, it was determined that the experimental schools would not have the services of a counselor.
Objectives

The broad objectives of this component were coordinated with the objectives of the larger Career Development Project and are stated in several sources. They are:

1. Helping youngsters to learn more about themselves and to see themselves positively; and

2. Helping youngsters learn about the world of work and to relate this knowledge to their work in school.

This first year was considered exploratory and developmental. A greater knowledge of children, their interests and capabilities as well as a deeper understanding of teachers' interests and involvements was being learned. Hopefully, this will yield feedback into a reconstruction of program objectives which will be more comprehensive for the second program year.

The elementary school consultant derived the following as tentative objectives for the first year. They are not specified by grade but by general level (primary grades, intermediate grades), and they are stated in performance terms.
Primary Grade Objectives

After one year of exploratory activity, the primary age student will be able to:

1. name and describe the work his mother/father/or "significant other", does
2. express reasons why he would or would not choose to perform that work someday
3. list 5 indoor occupations, 5 outdoor occupations, and tell whether these occupations deal with people, ideas or things
4. know the meaning of job family, be able to construct a job family
5. be able to identify at least 3 workers by their tools, clothing and be able to describe his work

Intermediate Grade Objectives

After one year of exploratory activity, the intermediate age child will be able to:

1. name and describe the work his mother/father/or "other" does and express reasons why he would or would not choose that type of work one day
2. list five indoor occupations, five outdoor occupations and five service occupations
3. identify an interest, attitude and ability and relate it to a job family in the future
4. identify one job that has changed because of technology
Planning the Program

The elementary consultant began her activities in September, 1970. Based in the Baltimore City Division of Guidance and Placement she was given relative freedom to select specific objectives for the program, and to plan the actual activities. Her plans were reviewed by the state specialist in Pre-Vocational Education, the director of evaluation, and the city's director of guidance.

The 5 schools selected as pilots were representative of the system at large, yet none were served by a counselor. All five administrators agreed to participate in the project. Next followed a systematic program to orient the faculties of the various schools to the program. An identical schedule was followed at each school, as indicated below in sample log entries by the consultant:

1. Met individually with each Principal to explain the component and to obtain support and reactions, and

2. Met with each faculty as a group and explained the proposed program and requested teacher volunteers for participation, and

3. Met with each P. T. 4, explained purpose of program and elicited assistance from people of various occupations and professions.

Finally, the consultant met with a number of key resource persons within the system to determine what resources were available and how they might be utilized. A partial list of consultants included the following:
Coordinator of Economic Education
Area Supt. for Vocational Education
Director of Curriculum Development
Director of Project-KAPS (Keep a Pupil in School)
Specialist in Instructional Materials
Itinerate radio and television instructor
Supervisor of early childhood education
Specialist in Instructional Material Research

During this planning period, which continued into December, 1970, the consultant conducted a variety of activities which included the following:

1. Served on the "Social Studies-Book Review Committee" in order to be in a position to review and recommend books and filmstrips which would help promote career exploration;

2. Visited the instructional materials center, made an inventory of films that might be used by teachers in this area, catalogued them and made them available to teachers;

3. Surveyed the immediate geographic area to determine what businesses were located near the schools and to assess the possibility of school visits to those businesses;

4. Contacted a number of Commercial producers for materials to be used on a preview basis;

5. Contacted various school systems throughout the country who are operating experimental programs in this area of
career exploration. Among those contacted were:

State of New Jersey Department of Education
School #149, New York City, New York
Division of Vocational Education, Georgia State Department of Education
Seattle Schools
Nova Schools, Ft. Lauderdale, Florida
Division of Vocational Education, North Carolina Department of Public Instruction
Daan F. Talagan, Chief of Occupational Education, Wyoming State Department, Cheyenne, Wyoming
Teacher Reactions. After conferences with local administrators, school faculty meetings were conducted where the consultant explained and discussed the aims, possible activities and possible outcomes of the program. The response of teachers volunteering to participate in the experimental program ranged from an estimated 50-75% at each school. This was taken as an indication of a satisfactory level of interest. It was evident that teachers have not been coerced into participation in the program.

Administrative Procedures. The consultant would be responsible to both the building principal and the Director of Guidance for the school system. All activities were reported to the Assistant Project Director and evaluation team.

Scope of the Programs. The five schools represented a total student population of 4,149, and a teacher population of 134. A breakdown of these totals is indicated in the following chart:

<table>
<thead>
<tr>
<th>School</th>
<th>No. of students</th>
<th>No. of teachers</th>
<th>No. of aids</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>930</td>
<td>28</td>
<td>16</td>
</tr>
<tr>
<td>2</td>
<td>1019</td>
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<tr>
<td>3</td>
<td>700</td>
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<td>4</td>
<td>700</td>
<td>27</td>
<td>21</td>
</tr>
<tr>
<td>5</td>
<td>Totals</td>
<td>800</td>
<td>134</td>
</tr>
</tbody>
</table>

Note: It was not feasible to involve entire schools in this component at this time. Extent of participation appears in the next table.
Every grade from kindergarten to six including special classes (I.Q. range between 50-79), was represented in the program in order to allow for experimentation at all grade levels. The following table indicates the various levels represented along with the number of teachers and pupils actually involved in the project.

Grades, Teachers and Pupils in Experimental Program

<table>
<thead>
<tr>
<th>Grades</th>
<th>No of grades</th>
<th>No. of pupils</th>
<th>No. of teachers</th>
</tr>
</thead>
<tbody>
<tr>
<td>K</td>
<td>2</td>
<td>100</td>
<td>2</td>
</tr>
<tr>
<td>1</td>
<td>7</td>
<td>245</td>
<td>5**</td>
</tr>
<tr>
<td>2</td>
<td>7</td>
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</tr>
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<td>3</td>
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<td>70</td>
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<td>4</td>
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<td>5</td>
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<td>6</td>
<td>10</td>
<td>350</td>
<td>7**</td>
</tr>
<tr>
<td>Special</td>
<td></td>
<td>60</td>
<td>3</td>
</tr>
<tr>
<td>Totals</td>
<td></td>
<td>1350</td>
<td>34</td>
</tr>
</tbody>
</table>

* One teacher taught 3 sections of Social Studies.

** One teacher taught 4 sections of Social Studies.

During the planning phase from September to December, 1970, the consultant met with each teacher selected to participate in the program an average of two times. The purpose of these meetings was to determine the pupil needs and the needs of each teacher, to begin listing teaching objectives and to plan activities. These meetings provided directions for the consultant's research and for the development of activities and programs to suggest to teachers. Teachers were to be presented with a variety of...
suggestions, activities, programs and materials from which they
could select for classroom implementation. They were free to
plan their activities independently as well. The consultant
was to be a true resource person and not a director or master
teacher. Teacher reaction to this approach was found to be
favorable. They tended to prefer help and support rather than
rigid or authoritative direction.

Implementation

School Visits. The consultant worked with each of the 34 teach-
ers once each week from January through May on the following
schedule:

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>School #2</td>
<td>2</td>
<td>1</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

The average visit lasted from 20 to 30 minutes depending
principally on the number of teachers per school (School #2 has
9 teachers and school #5 has only 4 teachers). Some visits were
much longer.

The major purpose of the visit was to plan and evaluate
possible class activities, suggest media and resources, discuss
needs and problems, and to follow up activities.

School visits occasioned regular meetings with building
administrators to keep them apprised of the progress of the pro-
gram. Principals' evaluations of consultant effectiveness was
generally favorable and is treated elsewhere in this report.

Other Duties. The consultant spent considerable time working
with community and school resources, researching and making ar-
rangements for many special activities. This kind of support
permitted a wider range of teacher and classroom activities because of the consultant's personal presence. Committee work with the "Social Studies Book Selection Committee" and the "Social Studies Advisory Committee" of the school system, close working contact with the vocational specialists of the Maryland Dept. of Education and other administrative duties comprised the balance of the consultant's time.

Typical Activities. Program Activities varied greatly and ranged from classroom activities conducted by teachers or individual pupils exclusively, through several group diversified activities, to extra school individual projects and large group field trips. Appendix C provides examples of activities developed by the consultant and is representative of the types of activities routinely carried on by individual classes.

Specific examples taken from both the primary grades and the intermediate grades might prove helpful. They are presented below.

Primary. Grade one was treating the family; discussion notions of the interdependence of family members, responsibilities of family members and their contributions to the home and community. Nearly every child agreed to discuss his parents' job in the working world, to make a study of it, and to make a contribution to the class about their parents' contribution to the world of work. It was decided that a camera would be rotated to each child's parents who would photograph various aspects of their job showing their own responsibilities and some of their co-worker's duties.
Slides were made of the film by the system's Media Center and scripts were prepared by parents, child and teacher working together. Each child participating then made a presentation to the class. Many parents and in some cases, others (relatives, co-workers), agreed to visit the class to discuss their work and to answer children's questions. One parent, for instance, was a fireman. Pictures of him in action, taken by co-workers made a fascinating presentation which was followed by a school visit by the fireman.

Intermediate: One Social Studies class was studying immigrants to this country, investigating ways they learned to cope economically and how many family businesses were formed. Several children had parents who owned their own businesses, including one child who actually worked in that business. Field trips were made to community small business firms, slides were prepared for future study, and research was conducted by class members.

The child who worked in a family business discussed its operation, brought forms and accounting procedures to class, and discussed how it felt to be a worker in a family business.

A local businessman spoke to the class about his business, answered children's questions, and probed in depth many economic, civic, and social implications of owning a business. Children later discussed why they would or would not like to own this type or any type of small business enterprise. This presentation by the local businessman coincided with a monitoring visit by a member of the third party evaluation team. The businessman was deeply impressed with the children's sophistication and depth of
understanding of legal and economic aspects of operating a small business.

Later these learnings were related to instruction in mathematics, developing some of the relevancy of this branch of study.

Materials Produced.

The following materials were developed by the consultant for use by teachers. Samples of these materials are provided in appendices. The complete collection is stored in the project archives and is available from the project assistant director on request.

The study and activity forms were developed after contact with teachers and administrators as an attempt to meet expressed teacher needs.

Study Guides and Activity Plans for Teachers. (Appendix C)

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<tr>
<th>Grade</th>
<th>Resource Guide</th>
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<td>general</td>
<td>Parents' Occupations</td>
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<td>Relationships of School and the World of Work</td>
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<td>Job Aspirations</td>
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<td>Objectives</td>
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Resource Guide

Intermediate: The Police Dept.

3-4: Understanding's
6: Awareness of Occupations and Job Families

Objectives
6: Leisure Time Activities
5: Leisure Time
3: Job Families
5: Government Jobs
6: Motivation
6: The World of Work
6: Kinds of Jobs

Goals

Questionnaires and forms for students' use. (Appendix D)

Grade Resource

K-6 School (Letter to Parents)
3-6 Questionnaire
3-6 Pre-exposure data on teacher and pupil views on the world of work
3-6 Student Information
6 Class Interview Guide
5-6 Interview form
4-6 Classroom Questionnaire
4-6 Reasons for Accepting Influence
4-6 What Decisions do you make?
Evaluation Although there was no attempt to survey large groups of students by objective instruments to determine if the objectives of the project were being achieved, monitoring of classroom activities, teacher reports, and the elementary consultant's self reports provided a number of findings:

1. Program activities addressed themselves to program objectives.

2. Many students were discussing and questioning many aspects of jobs and the world of work.

3. Teachers were encouraged about pupil interest in, and their explorations of, the world of work.

4. Many students were learning more about their own parents jobs.

Growth in self understanding and improvement of decision making processes and skills is necessarily difficult to assess. It is in these areas that increased development should occur. Newly generated activities should concentrate in these areas.

In terms of process, the consultant did adjust her activities to correspond to expressed needs of teachers. Her decision to spend a considerable amount of time during the early phase of the program in developing resources and researching and preparing guides for teachers was well justified and reasonably productive. Teachers' reports indicated they developed and increased confidence in their experimental undertaking and attempted a variety of novel activities related to program objectives which they might otherwise have never attempted.

A synapse effect was observed in which a number of other teachers expressed interest in inclusion in the program. Con-
being contemplated which should lead to a larger teacher and pupil project involvement in succeeding years.

The extension of interest to other principals and administrators has not been assessed at this time. There is some evidence that the existence of the elementary component has not been widely communicated throughout the city school system.

Local School Evaluation. School administrators were asked to rate the consultant on a seven item form. Responses were received from 4 of the 5 administrators. These responses indicated the consultant was involving an increasing number of teachers in the development of their skills in career exploration activities in three of the four responding schools. One school did not respond to this item.

Three of the four principals thought that the consultant was providing their school with materials, time and personal assistance on an equal basis with the other schools.

All four responding principals agreed that the human and material resources provided by the consultant were interesting, applicable and flexible.

Two principals believed that their schools were not utilizing the services of the consultant to the fullest possible extent. Two schools did not respond to this item.

Three principals felt that the consultant was demonstrating her effectiveness by "providing new approaches to curriculum for teachers", and two principals, through "increased numbers of field trips."
consultant, only one principal felt such changes were occurring, two disagreed and one did not respond.

Only one principal responded that the consultant was "spending one full working day per week", at their school, while three claimed she was not. (This item is possibly misleading; as it was earlier noted, varying numbers of teachers participating in the project require varying lengths of time to service in a given school).

Additional comments suggested that the consultant's services are a "great impetus" to the school program; that "she has introduced new resources to the school", and that "teachers have taken many of her suggestions and used her resources".

Results of the survey of principals' reactions to the services of the consultants is presented in tabular form elsewhere in this section.

Teachers' Opinions. A number of teachers rated the consultant's services highly. Verbal responses abundantly indicated that teachers have learned a great deal about the interests, knowledge and aspirations of children that was formerly unrecognized. A number have stated that they provided experiences for children that they would not otherwise have had developed.
Survey of Principals' Reactions to Consultant's Services:

School No. | 1 | 2 | 3 | 4 | 5
---|---|---|---|---|---
Yes | No | Yes | No | Yes | No | Yes | No | Yes | No
---|---|---|---|---|---|---|---|---|---
x | x | x | x

The consultant has spent at least one full working day per week in this school, this community, as with associated adult groups.

The consultant has involved a visibly increasing number of teachers in this school in the development of their own skills in career exploration activities.

The consultant has made herself available to members of my staff with resource materials, time and personal assistance on an equal basis with the other 4 schools.

The quality of both human and material resources which the consultant has provided has been interesting, applicable and flexible.

Although the consultant has made herself available to us, we have not utilized her assistance to the greatest possible extent.

The effectiveness of the consultant's services have been demonstrated through an increased number of field trips, visits to school by working parents and other businessmen, formation of community groups, new approaches to curriculum by teachers.

We have observed an increased enthusiasm and a corresponding change in attitude toward school and work by those children whose teachers have worked with the consultant.

Note: -- indicates no response to item.
Recommendations. In view of the interest expressed by a number of teachers not currently in the project the consultant should consider increasing her involvement to a greater number of teachers next year. This will necessitate a more economical usage of time and possibly less individual teacher contact. The consultant's increased work with groups of teachers and production and dissemination of resource materials both at hand and newly developed by teachers this past year, should be begun earlier in the second year followed by summative type evaluation procedures. The development of a model of the self concept as it relates to program objectives would be helpful both in developing program activities and in conducting evaluation. Such a model should include the discrete dimensions of the positive self concept.

Further, program activities which develop decision making skills might be encouraged if an anatomy of the decision making process were provided to teachers in the project. Such a model, again, should include the specific skills involved in and the dimensions of the process.

Dissemination of information about the entire component should receive greater emphasis within the school system to encourage replication of the successful activities.
Computerized Placement Information System Component

Overview. This component of the project was an attempt to determine the usefulness of a computer system in providing information to senior high school pupils in the areas of: college data, vocational technical school offerings, scholastic and financial aid, general and specific occupational data for a limited geographic area. Information is to be stored in a central computer information bank which is accessible through a tele-processing mode from a remote terminal installed in a senior high school in a large city school system. Staff and students are to be trained in the possible uses of the system and proper operation of the equipment. Experimental use of the equipment with selected pupils and staff occurred in the Spring of 1971. Full implementation of the system is currently planned to begin in the fall of 1971.

Objectives. The purpose of this project component was several-fold: (1) to provide to senior high students a bulk of current information about a variety of career development areas (past high school training, for vocations, college data, financial aid for education, entry level job data) to aid student career and educational decision making and (2) to provide yearly current data about job characteristics in the greater Baltimore area.

Background. The city of Baltimore was selected as the site of the model operation because of its long history of vocational guidance and job placement dating from 1928. The city school system operates an essentially decentralized placement program such that
The 12 comprehensive high schools and two senior vocational-technical high schools operate Employment Centers staffed by two coordinators each. The major thrust of the placement centers has been to bridge the gap between school and work by locating employment openings for the youth of the Baltimore City school system. This program defines 6 aspects of job placement: 1/ permanent 2/ part-time 3/ temporary 4/ summer 5/ NYC 6/ cooperative training programs.

In addition, the city has appointed a coordinator to serve as liaison between the Job Bank of the Maryland State Employment Service (MSES) and the placement service of the city schools. (The Job Bank of MSES maintains daily current data on job openings in the Baltimore area, assembles job orders by data processing procedures into book form to provide employment interviewers with information about all job orders on a daily basis. The main purpose of this order-taking and referral procedure is to control employer visitations made by various agencies who solicit job openings and to control the number of referrals made to employers daily).

Broader aspects of the Baltimore City vocational guidance program include school career assemblies, visitations for direct observations, use of news media, T.V. instruction, programmed instructional materials, and input from the Advisory Council of business and education leaders.

Planning. Interactive Learning Systems, Inc. (ILS, Inc.) entered into a contractual agreement with the Baltimore City Schools to provide supportive vocational guidance services to students in one
remote teletypewriting terminal with input to a central data bank. The possibilities of input from the WISES Job Bank would be explored for possible inclusion in the service at a later date.

One of the earliest priorities established by ILS, Inc. was the need to establish clearly the kinds of information students want and need in order to distinguish among prospective employers.

In March of 1971, representatives of ILS, Inc. visited with various Baltimore agencies for planning purposes. These agencies included the Baltimore Metropolitan Area Career Conference, the Baltimore Advisory Council on Vocational Education, Baltimore Chamber of Commerce, the Baltimore Placement staff of the city school system, the participating high school, Department of Employment Security and the University of Maryland Industrial Education Department.

In keeping with the established (planning) priorities ILS, Inc. developed a working form for the compiling of comprehensive data on employer characteristics for use within the system. With this model form it was next decided to identify an appropriate source of employer data to be used for demonstration purposes. Several sources were already available and these were considered for appropriateness of input. The sources were the Baltimore Placement Service with information about 22,000 metropolitan employers; the Department of Employment Security with information about every employer in Maryland with over 25 employees; the Maryland Department of Economic Development with limited information on approximately 3,500 Maryland manufacturers.

ILS, Inc., decided to survey the community and identify 100
characteristic list" (Appendix E) in order to assemble a job population for demonstration purposes. The Baltimore Placement Service agreed to conduct this survey and provide the necessary data for development of a data prototype system by late June, 1971.

A terminal was installed in the aforementioned senior high school and training of staff and students in the use of the equipment commenced in April, 1971, using information of national significance, as the demonstration data population.

Installation and Operation. A teletypewriter remote terminal was installed in the cited senior high school in Baltimore on April 8, 1971. An overview of the machine and its uses and minimal operating instructions were provided by a representative of ILS. Training and/or instruction was provided for the entire school's counseling staff, the job coordinators, the principal and a retired placement counselor who may be employed later as a para-professional in this component.

The school was closed the week after the demonstration for the Spring vacation period. The following week one of the counselors began to arrange for use of the machine by a sample of the student population for orientation and experimentation with operating procedures. The counselor reported that the pupils seemed to grasp the concept of the system readily. They requested information stored in the data bank with little difficulty. Much of the information pertained to college information, financial aid for further education and career information.

At about this time ILS, Inc. had developed the "employer characteristic list" and submitted it to a committee of job placement
modification. The committee evaluated the form and returned it to ILS, Inc., with their suggested modifications. The experimental forms were then reproduced in a small booklet form (Appendix E) and returned to the committee who had agreed to complete the forms for 100 firms in the Baltimore area. June 18 was set as the deadline for submission of the completed forms to ILS. Approximately 75 forms were completed as of that date.

**Products.** The employer characteristic form (experimental form) is being used to compile data on 100 entry level jobs in the Baltimore area that recent high school graduates have entered at the present time. This form lists jobs coded and grouped by D.O.T. number. It further provides a careful geographic subdivision of jobs in the Baltimore area into eight regions.

This geographic subdivision was deemed useful because the experience of the placement service has shown that pupils are likely to choose a work setting not only on the basis of occupational interest but also on the nature of the employer's services or products. For example, a pupil might decide he wants to work at Johns Hopkins Medical Center and look for an opening there, rather than first deciding he wants to be a hospital orderly and then looking for employers who are hiring orderlies.

The form was designed to be used to collect data about every potential employer in the Baltimore area. If the prototype system proves valuable in the experimental phase it will be adapted as the standard information gathering vehicle of the program.

For the pupil interested in exploring among various employers in the Baltimore area as opposed to available openings (that
information is available on a day-by-day basis from the Job Bank), characteristics can be cross-referenced to produce job profiles that yield highly personalized pupil interests. For example, a pupil could identify all employers in (1) Northwest Baltimore, (2) that provide a four-day work week, (3) in a non-union setting, (4) that provide on-the-job training, (5) for laboratory technicians, (6) where the average age of employees is below 25, (7) where car pools are organized within the company, and (8) have employee athletic facilities available.

If data collection in this exploratory phase proves successful, efforts will be made to prepare the data for permanent entry into the computer data bank. ILS, Inc., estimates that the next six months will probably be devoted almost entirely to taxonomic improvement and the development of adequate data collection procedures.

Evaluation. Planning for this project proceeded logically. A thorough form for analyzing job characteristics that would relate to students' needs and interests was developed and employed on a reasonable trial term basis. The decision to experiment with a limited data population by selected students in order to determine the relevancy of data and facility of are students were within the parameters of legitimate experimental development.

Some technical difficulty with experiment usage was observed on monitoring visits. Telephone line access to the central data bank was impossible to achieve at times. This difficulty must be related to the program to gain access. Such difficulties are to be expected in the use of sophisticated technology.
however, too frequent malfunction of the system will likely engender unfavorable reaction from student users.

There are school systems in the area already employing computerized techniques in dispensing vocational and career exploratory information. However, no evidence exists that indicates that the planners of this component coordinated with these other agencies in the development of their program.

Program development was sufficiently flexible to allow for the expansion of objectives. The opportunity to receive data input on currently available jobs through the USES job bank will be evaluated for inclusion in the program. This would result in a widening of program objectives.
Work-Oriented (Cooperative) Component

Overview. A program for junior high aged youth which combines a half day of school with a half day of work under close school and work supervision in school-neighborhood small businesses (under 10 employees), was initiated in the Spring of 1971. Twenty-one high risk youngsters from the 7th grade, between the ages of 14 and 16, from a Baltimore City junior high school were selected to participate. The program is continuing in a modified form throughout the summer.

This program constitutes a major modification of the component originally envisioned by the Maryland State Department of Education and mentioned in their proposal as the "Skill Training and Placement Component". In April, 1970, E. Niel Carey, Director of the Maryland Career Development Project, requested and received permission from USOE to alter the program. Accordingly, the program in its present form was initiated during the last quarter of the 1970-71 school year.

While it is too early to fully evaluate this component with empirical data some evidence was available from which to draw early inferences relative to the developmental process and the probability of success the program will have in achieving its objectives.

Conclusion. We can acquire the objectives of this program from a source: E. Niel Carey's letter to Dr. S. Rich (Chief, Exemplary Program Branch, Bureau of Vocational-Technical Education) USOE (April 10, 1970) and a May communique from the Maryland State
Department of Education entitled "work-Oriented (cooperative) curriculum Component" (The Maryland Career Development Project).

The objectives may be stated as follows:

1. To acquaint pupils with employment opportunities at a job entry level within their local environment (often overlooked by pupils).

2. To utilize the small businessman as an advocate for the student-worker - to teach that student employability skills and attitudes bearing on that relationship.

3. To utilize the small businessman as a resource to the school - to assist the school staff to understand employer's needs so that instruction might become more relevant.

4. To help students to relate school experiences to productive work.

5. To provide a means of retaining these highly drop-out prone students within the formal educational establishment.

The Program. In April, 1971, a group of students were identified as potential drop-outs from the school program. These pupils were 7th graders ranging in age from 14 to 16 years. Their school achievement was low and school attendance concurrently poor. The school attendance of this group varied from about 50% to 30% attendance for the present school year. The traditional school program had failed to challenge them and in all likelihood most of them would soon be dropouts because of this institutional failure.

By April 19, a group of 21 were selected for voluntary participation in the program. Letters of approval were received from their parents or guardians and they began their orientation to the
program under the guidance of a project-appointed coordinator whose unique qualifications are described under "Instructor".

Meanwhile, a list of about 25 local businessmen had been contacted by 2 of the city school system's work-study coordinators and had agreed to accept one or more of these students into their business as part time employees (working 3 hours per day).

The students were then assigned as a group to a special instructional track of their own under the supervision of Mr. J. B., who was to serve both as their instructor in the mornings and as their work coordinator and advocate in the afternoons. Their program called for academic and job related classroom instruction from 8:30-12 noon, and work experience from 12:15 or 12:30 to 3:15 or 3:30.

Mr. B. first arranged for each student to acquire a social security card and a work permit from the State of Maryland. This procedure was personally executed by each student, both to save time and to begin their exposure to real world working conditions of job placement.

The Classroom. Mr. B. was permitted great flexibility within his classroom by the school administrator in order to meet the unusual needs of these students. Instead, Mr. B. chose to combine field trips to local work sites and in-school visits by local resource people with a great deal of class discussion and emphasis on the work application of academic subject areas. The subject areas of greatest concentration were reading and mathematics. Reading consisted of a great deal of phonics and an individualized inspirational reading program emphasizing success stories in literature.
Class discussions varied a great deal and were often directed by students' perceived needs. Much of the dialogue was concerned with job related activities and concerns. Safety, punctuality, politeness, neatness, perseverance, and a variety of basic but important personal characteristics were treated. On one occasion, the vice president of a local bank spoke to the class on the value of saving a portion of each paycheck. A lively discussion followed this presentation, apparently revealing the novelty of this notion to many of the students.

Home Visits. In an attempt to become better acquainted with each child, Mr. B. has visited the homes of nearly all his pupils and met with their families. This has given him and the school deeper insights into the influences in the home life of each child and how they affect his career identifications and aspirations. During those visits the program was explained to each family as well as the things they could do to contribute to the child's success in school and work. Sometimes emergencies could arise and such family contacts helped insure the retention of these children in the program. During the summer months, Mr. B. will visit with each family at home to continue discussions and plans for these young people.

The Instructor. From observations it was evident to the evaluator that Mr. B. was qualified for his position by temperament, training and experience. His experiences include 31 years as an employee with Bethlehem Steel Corp. during which time (1951) he received a B.S. in engineering, and progressed from an apprentice level job as a machinist through a variety of foremanships in different aspects of the business. He is now retired from
Bethlehem and is working at night on a master's degree in the field of Education.

Mr. B. is a high energy individual who does everything with great enthusiasm, becoming absorbed in whatever enterprise he finds himself. His genuine affection and concern for his students is evidenced by his imaginative and energetic conception of his job. He accompanied this writer on a visit to a number of the small businesses in which his students are placed where he had immediate access to all of the owners, whom he knew on a first name basis. They easily exchanged ideas about, and comments on, the students and the jobs they were doing.

Job Placement. There were a total of 21 students enrolled in the program and placed in small businesses as of June 1971. Between April and June there has been a turnover of 9 students for the following reasons:

3 involuntarily dropped from the program (2 refused to report for work; one was unsatisfactory)
3 moved from the area
3 voluntarily dropped from the program (they became disinterested in the program)
9 total

All of the students were placed in jobs that were a few minutes walking distance from the school. Most of these were located in an urban area congested with small businesses. Students held entry level positions which they could learn with a minimum of employer training. Certain of the students were tried in several jobs before they felt suited to the employment. For instance, one boy became bored with his job in a shoe store because there was not enough work to keep busy. Subsequently, he adapted very well to a supermarket where he was almost constantly
in motion.

A sample of the types of businesses in which the students are located includes:
- Wholesale distributor
- Furniture department store
- Shoe repair and sales store
- Dry goods store
- Beauty parlor
- Food market
- Florist
- Small department store

Job Visits. The writer randomly selected and monitored 3 employment situations and interviewed students and business owners. Such questions were asked of students as, "Do you like this kind of work?" "Is this a good job?" "Why?" "What can you learn working here?" "What have you learned here?" "What do you think about school?" Under such interview conditions it is unwise to expect original and forthright responses. Students generally provided the anticipated positive answers they no doubt thought were expected of them. To the observer, their behavior indicated that they were performing tasks related to the objectives of this component.

A majority of the employers responded to this interviewer in a positive manner and communicated enthusiasm about and commitment to the program. Three employers volunteered that they thought they helped the students by keeping them "off the streets", which two said was a real problem environment for youngsters in the city. They felt that the students were developing proper attitudes toward productive work and that this enhanced the development of good citizenship.

To the question "Would you hire this boy after the program?", two replied "Yes", they would. One employer, the owner of a
furniture store, felt that the several boys he employed did not make an adequate contribution to the firm, but he felt a responsibility to do something to help them. To the question, "Are the students punctual?" responses were favorable. Mr. B. reported that several students frequently arrived at work early "to get off to a good start that day."

**EVALUATION.** By being actually employed and on the job daily, each student involved in this project gains work experience while he is able to internalize these, and those of other pupils, during the daily school class periods. Since a diversity of jobs are represented, the raw material for relatively broad ranging experiencesharing is apparent. Class discussion enhances the probability that students will learn to appreciate the job opportunities of the immediate environment. The first stated objective of this component has been readily achieved through initial implementation.

Through monitoring class instruction and field visits which included interviews with both employers and students we can see that students do acquire some employability skills. Probably the greatest gain is being made in terms of attitude modification. From attitude surveys conducted prior to program implementation, we judge from conversation with principal and instructors as well as school records, that characteristics of this group included poor attitudes toward punctuality, attentiveness, cooperation, low motivation to assigned tasks, regular attendance and other traits necessary for success either at school or work. A complete survey of pupils will be required to make judgments about the attainment of employable work skills.
The school has not yet utilized the participating small businessmen in any way sufficient to realize objective three. This process should begin as soon as feasible during the second year of operation. Possibly the late start of the project made such activities impracticable at this time.

A closer inspection and analysis of classroom activities is suggested in order to determine the most appropriate and efficient use of this dimension. The experimental nature of the program and lack of school teacher experience of the instructor dictated that this would be a period of tentativeness. After the instructor has gotten his sea legs and established rapport with his pupils—a crucial first phase—full attention can be devoted to the academic structure of the classroom.

Student attendance both at school and on the job is encouraging. Except for the 6 pupils of the original 21, students have been more punctual and more regular in attendance than previously.

**RECOMMENDATIONS.** A careful study and analysis of students’ cumulative records to determine individual pupil achievement profiles should yield clues to possible individualized compensatory educational programs. The design of additional subject matter input could enhance achievement gains. Greater program flexibility for pupils could result in a wider range of educational choices. Local consultants and central office personnel should be available for such services.

This type of program (the work advocate program) is easily misunderstood. Attention should be given to proper dissemination of program activities and goals, particularly to faculty and parents.
Such information might yield more input from the school's total faculty.

**RECORDS** A great deal of informal observation is a necessary and useful part of student evaluation in this type of program. These observations will yield useful data about students if they are recorded and systematised. Anecdotal records, inventories or surveys of self concepts, interests, aspirations and other objective data collected early and continuously throughout the program, (and readily accessible to the instructor), will aid evaluation efforts and provide input for program development. A file compiled by the instructor, kept separate from and later assumed into the cumulative record, would enhance study and observation of individual pupils.
Instructional Television Series

Overview: A series of television programs were planned to blanket the state of Maryland for viewing by adults and a school population of grades 4 through 8. The programs will provide information about the range of opportunities available in nine career areas each of which subsume a variety of jobs and careers defined by the Dictionary of Occupational Titles and considered appropriate as they have significance for this geographic region (the state of Maryland).

Fifteen programs of 20 minute duration each will be filmed for showing beginning in January, 1972. Software will be developed and distributed to teachers in the viewing area and will provide pre and post program planning ideas, discussions and activity suggestions which teachers may incorporate into learning units or into a variety of curricular areas.

The Division of Instructional Television of the Maryland State Department of Education will film and produce the programs based on content verification and development of the professional and lay members of a project appointed committee. Many of the facilities and resources of the Maryland Commission of Public Broadcasting are available to the program producers.

Objectives: Emphasis will be given to the fact that one's career will increasingly consist of a lifelong process of education, training and work experience which, along with one's leisure time, will provide for human needs in a changing society (proposal for Exemplary Project in Vocational Education).

The specific target audience is primarily 6th graders but programs are expected to show peripheral value to the range earlier cited.
Each T.V. episode written with specific objectives, including terminal behavioral outcomes for given specific programs.

Superceding information about job opportunities and the range of opportunities in nine career areas the program will be primarily concerned with the development of positive and specified attitudes towards work and leisure and the promotion of decision making skills.

The planning committee, after extensive discussion and study, writing and revision, derived the following goals for the television series:

Through the medium of television it is hoped that children will...

1. recognize that all legitimate occupations are necessary and worthwhile by observing the interdependence of people and tasks upon one another.

2. be able to identify the sequential steps in decision making: motivation, exploration of tentative and alternate choices, decision upon a course of action, acceptance of responsibility for consequence, and evaluation of choice. by seeing examples of this process linked to activities they know.

3. learn that work habits developed now are likely to carry over into job performance.

4. witness the importance of cooperative group effort in achieving common goals.

5. observe ways in which extracurricular and recreational activities may be connected to future occupational choice.

6. recognize the correlation between school subjects and various occupations.

7. understand that one's first career choice need not be one to which he is restricted for the rest of his life.

8. understand that work provides satisfaction in its own right by observing the pride and pleasure which are visible components of job performance.

9. observe various work settings and the people in them in terms of likes, dislikes, and beliefs.
10. develop an appreciation for and understanding of all fields of work and the contribution that each makes to society.

11. become more cognizant of the career possibilities and influences with their immediate communities.

12. recognize the differing patterns of men's and women's vocational participation and the determinants of these patterns.

13. witness how the uniqueness of each person can contribute to others, as well as to his own fulfillment, through creativity within a task.

14. learn about several broad career areas and the many opportunities contained within these areas.

Planning: The development of this project arose, in part, from information gathered from a long term I.T.V. project undertaken by Washington County, Maryland, schools. This project was originated by a Ford foundation grant 14 years ago which continued for several years under finance of Ford and which was assumed by the county. A great deal of information was available prior to the beginning of the Maryland Career Development project series.

Planning Committees: A planning committee was appointed in the fall of 1970. The following persons constituted that committee:

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This planning committee was responsible primarily for setting the objectives for the program, establishment of timetables and the appointment of subcommittees which would be given specific tasks in the project. The third party evaluation team members served as ex officio members of this committee and attended most of the committee meetings. The committee met on a bi-monthly basis. From time to time expert consultants met with the committee for planning and evaluation input.

T
ting One subcommittee conducted extensive testing of adults and of a large available sample of students from 4th to 8th grade (Appendix H) to determine their attitudes and cognitive knowledge of the world of work. After analysis and study of these test results, the planning committee refined its program objectives,
narrowed its field of concentration to a 6th grade target audience, developed a program and assigned specific program development packages members.

IMPLEMENTATION Bi-monthly meetings of the planning committee will continue and special sub-committee meetings will continue. Individual members will research and develop script ideas for their designated programs and develop program ideas for the production team (Appendix I) Members of the planning committee did not write the television program scripts. It was their assignment to develop program ideas and specify objectives for given programs. A script development sub-committee was formed and its membership was constituted of the following persons:

Career Development Project Assistant Director, the Television Program Producer, the Script Writer, the Planning Committee member assigned the specific program, member of the third party evaluation team and sometimes additional members.

The function of this committee was to discuss program content and various methods of presenting the program to sixth graders. Following this meeting the television producer and script writer held a series of meetings in order to develop the program format and the television script itself. Concurrent with and subsequent to the development of the television script a professional writer hired for the purpose developed software to accompany the program. This software would take the form of pre and post program suggestions for teachers which would be contained in a guide to be distributed to teachers prior to program showing. A sub-committee of the program planning committee would evaluate the work of the software author.
Student Actors A sample of students were identified as potential actors for the television series. The students were auditioned with a drama workshop teacher in the hope of selecting a smaller number of students who would work as actors in the television program. The students were asked to respond spontaneously to problems of space, imagination, future identity and hopes through a no costume, no props, role playing scheme. A special sub-committee evaluated student responses and selected students as actors for future program filming. The planning committee reviewed video-tapes of student performances and approved selection of student actors. A shooting script of one television block was presented and approved by March 10th. Corrections and refinements were made in the original script. By the end of March a short (2 1/2 to 3 minute) segment of the first television program was recorded on video tape and served as a pilot for the project. Two versions of the pilot were made from separate scripts. Each of the pilots was shown to a sample of teachers and pupils for reactions. Films were taken of the students viewing each pilot and post tests were administered to the pupils to test their cognitive learning. The films of the students viewing the pilots were studied and together with the test results, used as a guide for the selection of one of the pilots as a working unit of the first program. Results of this filming was shown to the planning committee and to a number of sixth grade teachers in order to obtain their reactions. Several of these sixth grade teachers were then recruited to serve as advisors to the planning committee for future television programs. Their function would be to view completed programs and provide evaluative input from a practitioner’s point of view. By mid-summer one episode - a program concerned with
the communications industry - was filmed in its entirety. This program was auditioned by several committees and found to have a number of serious shortcomings. The script was subsequentially rewritten and the program refilmed. This program was acceptable and the lessons learned from the previous experience proved to be a valuable experience for the entire project. Meanwhile several consultants met with the planning committee and provided valuable input to the planning. These consultants included Dr. Don Ferrin, an experienced television producer and Dr. Thelma Baldwin, a researcher and evaluation specialist.

Production of this series is continuing with the production of scripts (Appendix K) keeping slightly ahead of the filming of programs. Several programs are scheduled to be filmed by the end of the summer and several additional scripts will be completed by that time. The manual is still in the process of being written and is keeping pace with the production of television programs.

Evaluation The planning committee was observed to function in a careful, orderly and purposeful fashion by the evaluation team through attendance at both planning committee meetings and special sub-committee meetings. The committee developed their goals and objectives for the series and then revised them several times to adjust to new ideas and survey findings. Their approach was pragmatic and practical. When faced with questions about what children knew, they surveyed teachers and children themselves. When forced to reduce thousands of job categories to a manageable number for program showing they divided the world of work into 9 categories and proceeded to develop programs about this structure.
A number of meetings were held to evaluate a short pilot segment, to discuss script dialogue, setting and comprehensiveness of content. Two versions of the pilot segment were made and auditioned by a sample of students to obtain their reactions. Additional meetings were then conducted before the first film was produced. The production team accepted a substantial body of criticism about the film and elected to remake (rewrite and refilm) nearly the entire first program. When a panel of teachers advising the planning committee made additional criticism for omissions in the program, the committee decided again to revise the program. The committee and production team revealed themselves as capable of self-criticism and of receiving outside evaluation, adjusting their efforts to pragmatic findings.

Consultants of high professional standing were invited to several meetings. Their criticisms and suggestions were often incorporated in committee planning.

The Assistant Director of the Career Development Project kept all committee members and others informed of committee meeting results through a timely preparation of meeting minutes, which served as policy statements for the work of the committee.

Guides were developed to assist committee members in their work of program construction. Committee members were assigned the task of preparing program material sheets from which the producer and script writer would develop scripts. (Appendix K)

Work schedules were adjusted several times in order to conduct comprehensive studies or select talent for episodes and for other reasons. The project remains on schedule, and continues to adjust goals and activities as feedback indicates the necessity of such change.
Career Development Notebook

Overview - A five section notebook is to be developed and distributed to Maryland elementary, secondary, higher education, and continuing education personnel to introduce current ideas of the importance of the concept of career development in the lives of people and to suggest methods of developing and implementing educational programs in this area. The project was begun in the fall of 1970 and was developed by a number of professional personnel, committees, and agencies.

A first draft is planned for distribution on a limited basis in the fall of 1971. Evaluation of this resource will be conducted by reader surveys and the third party evaluation. A first revision will then be prepared for distribution on a broader scale to public educators at all levels throughout the state of Maryland.

Objectives - The objectives as stated in a mimeo report of the notebook writing committee are:

1. To provide educators with a meaningful concept of career development as envisioned by the Maryland State Department of Education and to suggest some implications for the development of educational programs.

2. To provide operational models, planning models, resources and information to educators and others interested in planning career development programs and activities.

Planning and Development - The writing committee of the Maryland State Department of Education began in September, 1970, to review the work of various other agencies throughout Maryland that had done pioneer work in the area of career development. A few counties had
developed conceptual models and had begun to implement programs of their own in this area. Members of the committee visited existing programs throughout Maryland and interviewed many of those who had developed models and programs. Committee members also monitored some of the working programs.

Baltimore County contributed a well developed career development model which served as one impetus for the Notebook's formation. In addition, two members of the Interdivisional Task Force on Career Development, produced a theoretical model of career development from early childhood through adulthood. (Appendix F)

Baltimore County's model encompassed the grades from kindergarten through 12. A committee from Maryland State community colleges developed the post-secondary plan and the Adult Education Section of the Maryland State Department of Education developed the adult model.

**Products:** In addition to the models of career development cited above which are both theoretical and practical models, four action models were developed and are included in the notebook. (See Appendix F for sample)

The four action models are from four counties (Baltimore, Garret, Anne Arundel, Worcester) which have operational plans at school levels. Their plans give concrete suggestions and examples for implementation of programs at the county level. (Appendix G)

The Maryland State Department of Education Model included an illustrated chart of the dimensions of human growth and development correlated with theoretical career development concepts.

The Baltimore County plan consists of a practical guide to implementation of career development concepts, containing principles,
objectives, suggested procedures, and suggested evaluations for all grades, Kindergarten through 12.

Several committees are currently at work developing various phases of the notebook. Changes or modifications are likely to develop while the work is in progress, though the outline provided below serves as a guide to planning and development.

Suggested Outline - Maryland Career Development Notebook

I - Introduction

A. The Concept of Career Development
B. The Interdivisional Task Force on Career Development and the Maryland Career Development Project

II - Planning and Program Development Strategies - Some Action Models

A. Baltimore County
B. Garrett County
C. Anne Arundel County
D. Worcester County
(Brief descriptions of the strategies that several different counties have used in planning and implementing Career Development programs.)

III - A Career Development (Kindergarten-Adult) model - Goals, Objectives and Activities (Basically, this section would consist of the specific model developed in Baltimore County)

- Implementing the Career Development Concept - Current Operational Programs (This section would include brief descriptions of programs or activities designed to facilitate career development at various levels. Such programs could include Project GO (Baltimore City), the Career Exploration Workshop held at the University of Maryland last summer, a description of Baltimore City's system of placement work study coordinators or Harford Junior College's Comprehensive system of student personnel services.)

V - Resources
(This section would include a compilation of available resources - consultants, printed materials, audio-visual materials, and community resources.)

These could be organized in several ways. This is one suggestion:

A. General or overall
B. Elementary level
C. Junior high or middle school  
D. Senior high school  
E. Post-secondary  
F. Adult

The notebook is as yet incomplete. Several sections are still under development.

Evaluation. Though the notebook is somewhat behind schedule in development, it has been improved and enlarged from its original conception. Due to input from evaluators, when complete it will be more comprehensive than originally planned.

Committee work is necessarily limiting in some aspects but the committees assigned to the various sections were observed to be operating smoothly and efficiently. The evaluation team visited with one of the writing committees during the final phase of its editing work and noted that project work had been completed on schedule. Planning activities adjusted to, time schedules were realistically established and adhered to.

The later inclusion of several (community college and adult) committees seem appropriate and within the bounds established in the original proposal. Current plans would indicate that a loose leaf draft for limited distribution for the purpose of field evaluation is realistically scheduled.

Specimens of Notebook products are included in Appendix G.
Dissemination Practices

The Assistant Project Director was responsible for a working system for disseminating information to all participants and staff. Minutes of meetings and decisions made were adequately disseminated. The minutes and bulletins which are located in the archives of the project provide evidence of the developmental process and flow of the project.

Other forms of dissemination included on site demonstrations for interested personnel as well as for the State Advisory Council on Vocational Education and the U. S. Office of Education. Local community, county agencies institutions from higher education through the elementary school were provided various forms of information. On the national level two papers were presented at the AFGA Convention, April, 1971, in Atlantic City by two of the administrators of this project and one at the AVA Convention, December, 1970, in New Orleans.

Press releases were made to numerous media. To date they appeared in the following newspapers.

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At large dissemination of selected data and materials on request were provided. The names of requesting individuals or agencies appear in Appendix L. This is only a partial list as clerical staff was not available to make a search in the many files.
APPENDIX

Due to the large quantity of appendices materials and the cost of reproduction a limited quantity of these were made. In the event a special need for these occurs they may be obtained from the director of the project.