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ABSTRACT

Prepared for use with the Research for Better Schools experience-based career education model, this handbook is designed to assist school personnel to formulate concrete and flexible responses to the challenges of developing exploration programs in collaboration with personnel from community resource sites. The handbook is divided into five chapters. Presenting an overview of exploration program development, the first chapter describes pre-operational tasks and operational tasks that must be performed by school personnel when planning and implementing career exploration programs. Chapter 2 discusses four target areas in which teaching efforts have focused in successful exploration programs: (1) employer and community contexts, (2) careers, (3) practical career information, and (4) use of facts, observation, and experience in personal decision making. The third chapter presents guidelines for conducting a site analysis with site personnel. Chapter 4 presents guidelines for selecting and sequencing learning activities. Also presented is an outline showing the continuum of learning activities, showing each variation and illustrating its use with an example from actual program experience. The final section provides a method for monitoring and documenting program learning activities. Sample plans for implementing exploration programs are appended. (LRA)

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HANDBOOK FOR CAREER EXPLORATION

PROGRAM DEVELOPMENT

(2nd edition)

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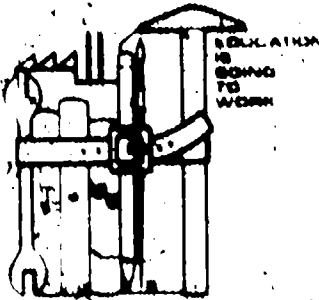
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

August 1977



Experience Based Career Education

RESEARCH FOR BETTER SCHOOLS, INC.  
1700 Market Street, Philadelphia, Pennsylvania 19103



**RBS EXPERIENCE BASED CAREER EDUCATION**  
has been developed and field tested by

Research for Better Schools, Inc.  
1700 Market Street, Suite 1700  
Philadelphia, Pennsylvania 19103

Robert G. Scanlon  
Executive Director

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MEMORANDUM

TO: Career Exploration Program Staff

FROM: Carmen McLeod  
Technical Assistance and Training Specialist

SUBJECT: HANDBOOK FOR CAREER EXPLORATION PROGRAM DEVELOPMENT

DATE: August 1977

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The Handbook for Career Exploration Program Development has been written specifically for those of you who are responsible for developing career exploration programs within the RBS Experience Based Career Education model.

Because of your important role in implementing the RBS model, we want you to have some information in addition to the Career Development materials available in the RBS Career Education Information Series. This Handbook includes a description of your role and responsibilities, together with a process and sample program plans you can use in your career exploration program.

During the year, please let us know if you have any questions or ideas concerning this material. We are interested in your comments because you will be utilizing the Handbook, and therefore, your comments will enable us to provide a more useful and valuable tool for developing career exploration programs.

Whenever you want to contact us for consultation, to discuss problems you may encounter, or to exchange ideas on the Handbook, please refer to the Technical Assistance and Training Directory on the next page.

CMcL/Is

## INTRODUCTION

Career exploration programs, when a representative sampling of community resource sites is used, offer high school students opportunities to experience the real world of career possibilities in a broad and orderly way. Students approach the promise of such career exploration with remarkably high expectations, excitement and genuine curiosity. Employers await the arrival of the students with interest, goodwill and the most useful career information available on the professions to be examined. What happens, in the way of education when these expectant and well-intentioned people meet wholly depends on the quality of the learning experiences which have been planned. The character and sequence of the learning activities at each site provide the experience base for Experienced-Based Career Education (EBCE).

The most significant force in formulating this experience is exerted by the school staff members who are assigned major responsibility for planning the program and developing learning activities at each site. Although employers act as co-planners and co-developers of the career exploration program as well as providing information on the many resources of their organizations, school personnel will take the lead in every critical developmental task: Initiating and scheduling planning sessions, outlining basic program objectives, and providing the curriculum expertise needed to organize the resources of each program site. Once the program is in operation, school staff members play an important role in monitoring the effectiveness of program

activities and influencing the successful revision and improvement of program learning activities.

School staff members face a challenge of many dimensions:

1. Leading the cooperative effort of program development and revision
2. Working in new and constantly changing program locations
3. Planning programs in a relatively short period of time
4. Scheduling meetings with employers when the time available for such meetings may be limited by the business schedule of the employer resource coordinator and/or by the classroom or counseling commitments of school personnel

In order to meet the substantial demands of program development, school personnel will need an economical and rational planning strategy as well as developmental know-how.

Most employers will request and appreciate firm direction by school personnel. These employers may be Directors of Personnel, Assistant District Attorneys, or Bank Managers who might find it difficult to imagine themselves working with high school students. They tend to recognize that their professional frames of reference differ markedly from that of the classroom, nor are they familiar with needs and expectations. They usually demonstrate, however, high enthusiasm and personal commitment to the idea of career exploration, often citing their own lack of preparation for choosing a career and their children's need for such a program.

Employer personnel will be equipped and willing to explain the nature of their organization and the careers which are pursued in its operation. They will know which of their colleagues might qualify as program participants and which facilities might be available for program use. They will also be able to provide crucial planning information regarding the feasibility of proposed learning activities.

Most employers will ask two significant questions: What do you want me to do for your students? and How am I supposed to do it?

These two questions define the responsibility of school personnel in very simple and direct terms. At the heart of the first question is the need to understand both the broad goals of EBCE and the specific objectives of career exploration program activities. The second question invites the guidance and direction of school personnel in developing actual program activities.

This Handbook is designed to assist school personnel to formulate concrete and flexible responses to the many challenges of developing exploration programs in collaboration with personnel from community resource sites. The process of exploration program development outlined here begins with establishing program objectives and terminates with suggestions for monitoring the program in order to revise and improve it.

This Handbook does not provide any philosophical background or broad conceptual overviews of career education, nor does it deal

directly with administrative concerns, e.g., transportation, record-keeping, or budgeting. For information on such matters, readers are referred to the career development elements in the RBS Career Education Library.

The central objective of this Handbook is to present a practical development process and samples of program materials to illustrate the development of exploration programs within an actual employer site. The text is specifically addressed to school personnel who have done at least minimal preparatory work and are ready to begin performing the tasks of program development with participating employer sites.

Chapter 1 provides an overview of the developmental process. Each successive chapter provides greater detail on one or more specific tasks. Sample program materials based on those developed by experienced school personnel from the Research for Better Schools, Inc.'s pilot and demonstration sites are provided in the appendix.

The "art" of program development for experienced based career exploration is still very much in its infancy. As yet, there are no full-fledged experts in the field. The procedures and materials of those currently working in career education are undergoing constant revision in response to new information and the need for alternative strategies to accommodate localities with varied socio-economic and educational characteristics. While much of the developmental ground is new or only tentatively charted, the people participating in career



exploration programs must be prepared to adapt such programs to their particular objectives and needs.

The users of this Handbook should, furthermore, be willing to trust their own imaginations and to use their own ingenuity. No exploration program can be developed by grinding resources through a "production line" of educational processes or by shuffling what may appear to be interchangeable parts. Individual school staff members and employers can contribute unique strengths and visions in their collaborative development efforts. They should not feel that the "facts" about an exploration program exist somewhere beyond their reach or beyond their own capacities. The best solutions to the problems of program development will be found during the course of their shared development efforts and in the enormous learning potential of the organized linkage of school and community resources for career education. Developing an exploration program broadens the personal career development of school and employer personnel as well as student career development. It is hoped that the practical development process and sample program materials presented here will confirm the value of what is already known and strengthen the confidence of school personnel by providing them with a field-tested process which can be followed in developing their own career exploration program.

PLANNING SCHEDULE FOR EXPLORATION PROGRAM DEVELOPMENT	
"School-side" Planning Tasks: Developmental Preparation by School Personnel	"Field-side" Planning Tasks: Planning Meetings with the Employer
I Establishing Program Objectives ● EBCE Objectives ● Career Exploration Objectives	
	II Goal Presentation, Session #1 ● Clarifying Goals ● Discussing Summary Data Sheet ● Background Information
	III Site Analysis, Session #2 ● Completing Worksheets ● Touring Site Facilities ● Discussing Program Ideas
IV Developing the Exploration Program ● Selecting and Sequencing Learning Activities	
	V Presenting the Program Draft Session #3 ● Assessing Program Draft ● Revising Program Draft
VI Preparing Students for Program Participation	VII Implementing the Program Day #1 ● Trouble-Shooting ● Observing Program Activities
	VIII Monitoring Exploration Program ● Observing Program Activities
IX Documenting Monitoring Visits ● Summarizing Observations ● Assessing Learning Activities ● Identifying Revisions	
	X Program Revision, Session #4 ● Presenting Monitoring Data ● Discussing ERC's Assessment ● Revising the Exploration Program

PRE-OPERATIONAL TASKS

OPERATIONAL TASKS

(Figure 1)

CHAPTER I

AN OVERVIEW OF EXPLORATION PROGRAM DEVELOPMENT

## CHAPTER 1 - AN OVERVIEW OF EXPLORATION PROGRAM DEVELOPMENT

When an employer has agreed to participate in the career exploration component of a career education program, school personnel may begin planning the instructional curriculum to be implemented at the site. Developmental tasks can be separated into two distinct categories: (1) Pre-Operational Tasks and (2) Operational Tasks.

During the first phase of program development, the employer works with school personnel to define a series of learning activities designed to utilize the best site resources available to achieve program objectives. In the second phase, which begins on the first day of the program operation, both planning roles and responsibilities must be significantly altered. At this point, the employers begin to teach, taking control of the learning process and responding to student interests, needs and reactions to program activities---while school personnel who, formerly directed program planning and development, assume lower profiles as observers/evaluators of program learning activities. Although monitoring the program is less demanding in terms of time and energy required, it is very important for further program development. Judicious and thorough program monitoring will have a profound impact on both program maintenance and revision.

During these two planning phases, school personnel must perform a series of extremely important tasks. The following list indicates both the scope and sequence of these tasks.

## PROCEDURES FOR PROGRAM DEVELOPMENT

PRE-OPERATIONAL TASKS

1. ESTABLISHING PROGRAM OBJECTIVES: Establishing objectives for (a) the overall EBCE program, (b) the career exploration program, and (c) specific learning activities. A summary of these objectives should be prepared for the use of school personnel and employer resource coordinators.
2. SITE ANALYSIS: Conducting a thorough survey of each participating employer site in terms of (a) the organizational context, (b) all careers being pursued, (c) specific careers to be included in the program, and (d) practical career information.
3. DEVELOPING THE PROGRAM: Using program objectives and information collected through site analysis to (a) select learning activities and (b) sequence learning activities.
4. ASSESSING AND REVISING PROGRAM PLANS: Working with the employer resource coordinator to assess and revise the draft program and prepare a detailed schedule of activities for each projected program day.
5. PREPARING STUDENTS FOR PROGRAM PARTICIPATION: Orienting students to EBCE and career exploration objectives and procedures.

OPERATIONAL TASKS

6. IMPLEMENTING THE PROGRAM: Operating the program by having the students take part in the learning activities selected for each program day.
7. MONITORING AND DOCUMENTING PROGRAM ACTIVITIES: Devising a process to monitor program activities and document the findings.
8. REVISING THE PROGRAM: Discussing the program strengths and weaknesses identified on the Exploration Program Observation Record with the employer resource coordinator in order to revise and improve the program.

A. PRE-OPERATIONAL TASKS

During the pre-operational phase of program development, school staff will be involved both in the world of school (and its responsibilities) and the many different worlds of individual community resource sites. Much of the most creative part of exploration program development will occur in still a third area -- their imaginations, before, during and after their meetings with participating employers.\*

Employer contact time should be formally scheduled and used to accomplish the specific tasks which are absolutely essential for effective program development. At the outset, school staff should explain the planning process to the employer and clarify the planning objectives of each meeting. If a meeting calls for preparation by the employer's representative, the homework required should be spelled out in detail. Business personnel are familiar with concrete specifications and meeting agendas. If any written material is required, the employer should receive it well in advance of the scheduled meeting.

One of the easiest and most productive ways to economize in expenditures of time and energy is through the use of written materials. Employers invariably request literature on the school's EBCE program although they seldom have enough time to read and digest lengthy manuals or other training materials prepared for teachers and other school staff.

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\*Due to the challenging scope of program development and the many conflicting demands which school personnel will have to deal with, it is important for school personnel to simplify and streamline their field activities as much as possible.



During the pre-implementation phase of program development, school personnel who are involved in field activities or in related counseling components may want to prepare a brochure containing information specifically written for prospective employers. Having standard program information readily available will enable individual school staff members to avoid the time-consuming exercise of presenting basic program data at every introductory meeting with a representative of a potential program participant.

If a brochure or handbook on the program is not available, school staff members may want to prepare concise data sheets to supplement their own presentations at each task-oriented planning meeting. Such data sheets could be mailed to the employer before a scheduled meeting or presented at the beginning of the meeting. After each session, the employer may use the data sheet to orient colleagues who will act as learning supervisors.

The precious hours spent in field meetings with employers should be used for the highest order of developmental business -- the sharing of professional expertise in order to develop effective student learning activities. Matters of logistics, for example, may be dispensed with quickly and efficiently, preferably by telephone or by letter.

The list of major exploration program development tasks presented in Figure 1 on page 6 of the Introduction shows a sequential schedule of planning tasks which has been widely used by pilot site personnel. The illustration is divided vertically to show which tasks school personnel will perform alone (or in the school) and which will be performed at the employer site in formal meetings with the employer resource coordinator. Roman numerals indicate the order in which

these tasks should be performed. The time required for the total developmental effort will vary from school to school, depending on lead-time and staff allocations. A program at an exploration site could be developed in two weeks, if school staff have the time for concentrated field work. If, on the other hand, several sites are being developed simultaneously by a single school staff member, the developmental tasks required may take several months to perform.

The schedule illustrated in Figure 1 is used as a reference point throughout the following discussions of specific tasks; it provides a concise and concrete summary of the sequence, content, and focus of essential developmental tasks.

## B. PRE-OPERATIONAL TASKS

### 1. Establishing Program Objectives:

(Establishing objectives for the overall EBCE program and clarifying objectives for the exploration program and specific learning activities.)

The best foundation school staff can have for exploration program development is a clear and comprehensive understanding of the major objectives of EBCE program. All school personnel associated with the new career education program should participate in a serious dialogue designed to establish a set of guiding program objectives. School planners/implementers should begin at a general level, by first considering the broad aims of the EBCE program as an integrated system of component parts. Once these broad aims have been identified and specified, participants may proceed to narrow the focus of their discussions by concentrating on the specific content objectives of the various program components, e.g., the career exploration program.



In this endeavor, the quantity of possible objectives usually mitigates against quality and specificity. School personnel should attempt to isolate and define those learning outcomes which are most significant and unique to each program component, e.g., guidance functions, exploration programs. Official goal statements should be limited to the major objectives of the overall EBCE curriculum, although intended program side effects and spin-offs certainly warrant some attention.

For school personnel who are about to conduct their first planning sessions with employer resource coordinators, a firm grasp of the EBCE hierarchy of goals will provide the most meaningful preparation. The broadest goals of EBCE programs are located at the top of the hierarchy, while the more specific goals of the career exploration program and the still more specific content objectives of site activities, which are located farther down in the hierarchy of goals, will receive the most attention during meetings with employer resource coordinators. If a written summary of the school's hierarchy of goals is prepared, school personnel can use that summary to collect and order the most important goals or objectives associated with the exploration program. A copy of this summary should also be provided to the employer resource coordinator for his/her reference and for probable use in orienting site staff to the program.

Although a clear understanding of program and learning activity objectives will give the employer resource coordinator a great deal of direction in performing developmental tasks, school personnel should also be prepared to supply factual background information. Most participating employers will request information on the students they will be working with, the roles and responsibilities of all program participants, the other components of

the EBCE program and, finally, the other community resource sites taking part in the career exploration program. The broader perspective that such information provides will keep site personnel from feeling isolated from the educational process and may supply ideas which the employer can use to give more personalized and effective attention to the students.

The following outline itemizes the kinds of issues and questions which employers often ask and which should be dealt with during the course of the first planning session:

- (A) What kinds of students participate in this program?
- a. Age ranges
  - b. Ability levels
  - c. Career interests
  - d. Reasons for choosing this particular site
  - e. Expectations for this site
- (B) What is my role?
- a. Should I be a school teacher?
  - b. Should I be an employer supervising (student) workers?
  - c. Should I be a host entertaining visitors?
- (C) What is your role (the school staff) in terms of operating this program?
- a. Will you handle disciplinary matters?
  - b. Who will handle the bookkeeping chores, e.g., keeping grade and attendance records?
  - c. Should I feel free to initiate program changes?
- (D) How should the students view themselves while at my site?
- a. Are the students on a field trip?
  - b. Are they workers on a job?
  - c. Are they special guests of our firm?
- (E) What are the students doing in school as a part of the EBCE program?
- a. Are they learning basic skills?
  - b. How will they use the information they receive here?

(F) What other firms or organizations are taking part in the EDGE program?

- a. What other employers are included in this career cluster?
- b. What kind of programs do they plan to offer?
- c. How does my organization fit into your program plan?

2. Site Analysis:

(Conducting a thorough survey of each participating site in terms of (a) the organizational context, (b) all careers being pursued, (c) specific careers to be included in the program, and (d) practical career information.)

The exploration site may be as new and, perhaps, as formidable to the school staff member as it will later be for the students. The second session with the employer resource coordinator will, in effect, be career exploration by the school staff member since he or she will have to learn a great deal about the site in order to plan authentic and effective learning activities. In most cases, the quality of the learning activities at a given site will be directly dependent on both the depth and breadth of the school staff member's knowledge of the organization's mission and structure, the range of careers being pursued, and its material and human resources. The site analysis process presented here can be followed to develop the knowledge base upon which the exploration program will be constructed. Because of the vast amount of new ground to be surveyed and information to be recorded, the task of site analysis will require the longest and most structured planning session.

School personnel can follow the site analysis process to gather and organize information on the site and its resources. Worksheet 1 can be completed to profile the site in terms of organizational goals, structure, and operations. Worksheet 2, when completed, provides a detailed inventory

of the careers being pursued at the site. In completing Worksheet 3, the careers selected for intensive treatment are analyzed in terms of major tasks, observable outcomes, equipment used, training materials, and related information. The final form, Worksheet 4, suggests typical sources for supplementary career information.

School personnel will, of course, become increasingly familiar with all aspects of a specific site during the course of their monitoring activities. Initially, however, they will find that relatively sound, introductory information on the site is absolutely essential for the purpose of developing the program. School personnel may augment the information collected in the site analysis process by requesting a comprehensive tour of the site and by studying copies of any available literature.

The information gathered during a tour of site facilities, coupled with the information detailed on the site analysis worksheets, will provide the school staff member with many ideas on potential program resources. During the site analysis session, the employer resource coordinator and the school staff member will probably discuss many possible program activities. After the session, the employer should approach any site personnel pursuing the specific careers to be included in the program to solicit their cooperation and to obtain clearance to use any equipment and materials which have been identified for use in program activities.

### 3. Developing the Program:

(Using program objectives and information collected through site analysis to (a) select learning activities and (b) sequence learning activities.)

The task of school personnel during this phase of program development requires above all creative imagination. The information collected on the site analysis worksheets must be used to select and sequence learning activities for each program day. Although the scheduled student-employer contacts should provide sufficient latitude for spontaneous discussion and improvisation, it is wise to begin operation of the program using a high degree of both structure and specificity. Agendas which spell out the approximate time required for each activity, the topical content, and the materials and equipment required will save the employer instructors from needless anxiety and confusion and minimize the loss of valuable program time by the students.

The Appendix provides a number of sample program materials based on the learning activities scheduled at actual employer sites.

### 4. Assessing and Revising Program Plans:

(Working with the employer resource coordinator to assess and revise the draft program and prepare a detailed schedule of activities for each program day.)

When a draft of the program plan has been prepared, the school staff member should meet with the employer resource coordinator for the final pre-operational planning session. At this point, the employer resource coordinator's expertise will be especially valuable in assessing the feasibility and sequencing of specific learning activities as well as

the overall structure of the program. Since the preceding planning session, the employer resource coordinator will have had an opportunity to obtain information on the availability of site personnel and equipment. Furthermore, his or her knowledge of the organization and day-to-day functioning of the site will serve to correct any obvious impracticalities in the time, location or sequencing of the activities planned.

Usually any substitutions or rearrangements in the program plan which are necessary can be made at this session, so that further planning sessions will not be required prior to program implementation. This planning session also can be used to solve any logistical problems related to student lunches, transportation, an appropriate meeting place, and the like. The employer resource coordinator should be given a copy of the program agenda, with all revisions noted, so that it can be duplicated for distribution to all participating site personnel. Further questions regarding arrangements for program implementation can be handled most practically by telephone.

##### 5. Preparing Students for Program Participation:

At the employer site, students will encounter situations and experiences which will cause them to examine the world of work and re-appraise their potential for entering this world, on a continuing basis.

Orientation sessions should be held before the students are scheduled to go to a new site. The primary purpose of these sessions is to brief them on what they will be doing and what they should expect to learn from their experiences.

One successful way to ensure that students receive maximum benefit from the explorations, is to prepare them on how to ask questions and what kinds of questions should be asked.

A brief outline of sample questions is listed on the following page.

SOME QUESTIONS STUDENTS SHOULD BE PREPARED TO ASK

Employment Opportunities

Which careers are likely to grow rapidly, which slowly, and which not at all?

Where will that growth occur, in my community, or elsewhere?

How much competition will I have?

What will be my chances of job security and advancement?

Where will I live depending on the choices I make?

How many jobs are there now in this field?

Job Search Techniques

What are the access routes into the desired career?

What are the prerequisites?

How can employers be approached?

How can employers be sufficiently impressed to offer the job?

How can I prepare for the job interview?

Labor Market Intermediaries

What organizations and institutions operate between employers and employees to facilitate the process of matching people and jobs?

Career and Occupational Characteristics

What would be my primary duties to be performed?

Do I need special abilities?

What employee benefits are available?

What are the entry requirements?

C. OPERATIONAL TASKS

6. Implementing the Program:

(Operating the program by having the students take part in the learning activities scheduled for each program day.)

When the program begins, on Day #1 and later as needed, the school staff member will act as a trouble-shooter, a source of emotional support for both students and the employer and, perhaps, as a facilitator in handling student questions. No matter how carefully and thoroughly the program has been planned, a certain number of problems can be expected to occur; for example, the students may be reticent, the learning supervisors may be somewhat tense, or there may be problems in coordinating program activities. In situations like this, the only person who is acquainted with both the students and the employer is the school staff member; therefore, he or she will have to act as a general facilitator in order to provide a supportive connection between the students and employer site personnel.

The extent to which school personnel are needed will depend on the confidence and ability of learning supervisors and on the quality of the program activities scheduled. As learning activities and personal interactions get under way, school personnel will want to assume a lower profile. The students will have to relate directly to the employer instructors whose expertise will define their instructional authority.\*

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\*Although school personnel (since they will not be teaching at the site) may be tempted to leave site personnel holding the instructional bag at this point, site personnel should feel free to contact school staff on any questions and/or problems.



Once the employer has established an effective degree of rapport with the students, the school staff member will visit the site as an observer to monitor program activities and document his or her findings for the future revision and improvement of the program.

7. Monitoring and Documenting Program Activities: )

(Devising a process to monitor program activities and document the findings.)

When implementation of an exploration program begins, the school staff member should attempt to cover the entire scope of scheduled activities. Complete information on what is really happening on site is needed in order to compare what is really happening to the intended learning outcomes of the program's "paper plans."

The results of such a comparison can be useful in several ways. Spontaneous interaction and improvisation by program participants may be discovered to be more effective and more interesting than the program activities initially scheduled. Such unscheduled activities should be carefully documented so that they can be integrated into the revised program plan. Or, participating employers may be found to have an incomplete or faulty sense of what they should be doing. In a case like this, the school observer should note the nature of the problem for later discussion with the employer. In other cases, the employer may be implementing an activity exactly as it was planned but with little or no success. In a case like this, the substitution of other activities may be needed.

Often a single school staff member will not have enough time to give a specific site the kind of concentrated and continuous coverage which is needed if the program is to evolve in a positive way. In some pilot sites

field responsibility has been divided between two or more program monitors. Although one school staff member retains chief responsibility, for keeping track of program activities at a specific site, other interested staff members (either counselors or teachers) make two to four brief monitoring visits each month to that site. They report their observations to the responsible school staff member who enters their comments on an Exploration Program Observation Record form.

Since monitoring provides the information needed for revising and improving the program, each monitoring visit should be documented in a consistent manner. Pilot sites have developed various forms for use in recording the findings of monitoring activities. Although these forms vary from school to school, our experience suggests that a useful form provides space for several kinds of information. Observers should provide a concise and relatively objective description of specific learning activities as they actually occur. Each activity must, at some point, be evaluated in terms of its effectiveness in achieving exploration program objectives. Specific recommendations for change should also be included. The Exploration Program Observation Record provided here can be used to document the findings of program monitoring activities.\*

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\*After a program has been implemented the first time, complete monitoring is neither necessary nor advisable. The initial set of program activities will have been revised and the learning supervisors will have developed greater confidence and instructional skill. They will have to deal with participating students on their own terms, without the continuing presence of a school "chaperone." As the program continues, the school staff member should visit the site only to gather ideas for program revision monitoring only new activities or those of special interest.

**8. Revising the Program:**

(Discussing the program strengths and weaknesses identified on the Exploration Program Observation Record with the employer resource coordinator in order to revise and improve the program.)

After the first implementation of a program (its first cycle), the school staff member will want to meet with the employer resource coordinator (and other site instructional staff, if possible) to assess the effectiveness of program activities. If monitoring has been comprehensive and well documented, each learning activity can be assessed in a detailed and meaningful way. The employer resource coordinator will be interested in the objective view of the program provided on the Observation Record and will be able to contribute the very different and useful ideas of a program insider. Working together, the people who planned the program initially will attempt to develop new activities to replace any obvious failures, to expand successful activities, to introduce any experimental activities which may have been suggested by student interests and needs and, perhaps, to alter the sequence of program activities. The work done in this planning session may be the most important effort in exploration program development. While pre-operational planning is tentative, although characterized by many good (if abstract) intentions, the work done in this session is based on actual program operation. Many exploration programs have been successfully and extensively revised at this point. Although subsequent program revision is usually less dramatic, planning sessions to discuss possible program revisions should be scheduled at the end of each exploration program cycle.

CHAPTER II

ESTABLISHING PROGRAM OBJECTIVES

## CHAPTER 2 - CAREER EXPLORATION PROGRAM OBJECTIVES

A. EBCE OBJECTIVES

The vast majority of high school students, irrespective of family background or academic achievement, have had no effective opportunity to assess their own interests, temperaments, or abilities in terms of the demands and rewards of real work. In other words, these students tend to define themselves solely in terms of peer and parental behavioral norms, without any real understanding of how their lives might be expanded and their abilities meaningfully applied in the special contexts of work and the community. The decisions students make regarding their place in these contexts will shape their life-styles and identities profoundly---yet, more often than not, they will "select" or drift into a career without any true understanding of the political, social, and professional realities of the working world.

In addition to these understandable limitations of self-definition and career information, students tend to have a largely unrealistic or limited view of the nature and range of possible careers. Students have a vague idea of what their parents do to pay the bills; they have a limited view of what their teachers do, and they hear, from time to time, promotions on specific careers---usually presented by someone with a vested interest of some sort in promoting interest in specific jobs.

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Generally, students are not aware of a large number of other career possibilities except as they are presented by the mass media: glamorous, amorous doctors and nurses hurrying through hospital corridors to triumph over a series of medical catastrophes; rookie policemen "proving" themselves in repeated shoot-outs; and defense attorneys winning one case after another for the good guys. These unrealistic career portrayals may be supplemented in the student's awareness of career possibilities by a few heroic sports figures, some public figures in powerful positions, entertainment figures, journalists, and their counterparts in the media. This kind of career information does not provide a factual or personalized basis for career choice and preparation.

Thus an effective career education program should be designed to fulfill very specific student needs for:

1. A sharper and broader definition of each student's interests, skills, abilities, and temperament.
2. A more extensive and accurate picture of the range of possible careers and the demands and satisfactions of those careers.
3. An improved ability to process both new self-awareness and career information for use in career decision-making and taking the purposeful action those decisions require.

This is a very large order, indeed. For any one individual, the accomplishment of these goals usually involves a long, developmental process which, under the best of circumstances, may take years and many people. Much of this arduous growth process occurs after high school

and is the result of an accumulation of formative experiences well beyond anything that the richest career education program could provide.

Such programs, therefore, cannot reasonably be expected to enable students to reach an end-point or culmination of career development. Better objectives, or at least more realistic ones, are relatively more modest in scope: broader self-definition by students, more rational student decision-making and action, and expanded student awareness of career possibilities.

Experience-based exploration programs contribute most directly to the last of these three objectives. They are designed to give students a more extensive and accurate picture of the range of possible careers by expanding available learning contexts as well as student awareness of career possibilities. Although an exploration program does, of course, provide experiences useful for both broader self-definition and decision-making practice, the development of these complex skills will remain the primary mission of counseling and teaching personnel associated with the Career Education Program.

B. CAREER EXPLORATION PROGRAM OBJECTIVES

In order to accomplish the broad objective of expanding student awareness of career possibilities, career exploration programs must meet very specific objectives. In successful exploration programs using the RBS model, teaching efforts have been focused on four target areas. These areas have not and should not be isolated for independent

treatment, but all of them have been included in career exploration programs. Learning activities typically are directed to one or more of these areas to justify their expense in terms of time and staff involvement. The four major objectives for students in an exploration program are:

1. Understanding the context of the employer or community resource setting.
2. Getting a feel for the range of activities in several specific careers.
3. Learning and remembering practical facts about successful employment.
4. Learning how to use facts, observation, and experience in personal decision-making.

Each of these objective areas suggests many program activities. More detail is provided on tables 1A and 1B at the end of this chapter and in the discussion below:

With the possible exception of highly subjective and private pursuits such as creative writing or the graphic and performing arts, most careers are defined, and to a large extent controlled, by the goals, values, and management structure of an "organization." The complex political, social, and occupational influences within an organization create a context which a worker needs to understand if he or she is to use and relate to it successfully. Identifying and explaining the nature and influence of the career context is extremely important in career exploration. Beyond the very direct impact of the organizational context lies the following teaching truism: Students learn more



and feel more comfortable on new ground if they have a sense of the "big picture." A working knowledge of the organizational context will provide them with a frame of reference which they can use to integrate isolated facts, observation, and experience.

Although insights about the organizational context are necessary for the purposes of orientation and will later add to student understanding of individual careers, the careers themselves must receive the most concentrated attention during the course of the program. The most valuable and lasting learning outcomes for Career Education are those gained by direct exposure to the performance of specific career tasks in typical settings.

A large and significant body of career information may not be readily evident to students as they focus on the organizational context and on the activities of specific workers. This information includes both factual and procedural data related to job training, acquisition, advancement, and material benefits.

Objectives in the first three areas (Context, Careers, and Practical Career Information) center upon the learning potential inherent in the composition and resources of a specific site. In the fourth area of program objectives, the focus is upon the students---as individuals and as people who will react to the employer setting. They will need and appreciate active assistance from employer staff participants and school staff in order to operate effectively within a new environment and to process the barrage of new experience and information encountered.

there. Careful planning will bring the best of the site within their reach. Making the learning potential of the site useful for the students is the fourth program objective: Processing Program Information and Experiences.

Students arrive at an employer site with many unexplored apprehensions, expectations, interests, and outlooks. It is important to determine what their initial frames of reference are, in order to make them feel like real participants and communicators in subsequent program activities. By understanding where the students stand at the outset, program coordinators will be better able to correct misinformation and to tailor program activities to the specific learning needs of the students.

As they move through a strange and seemingly complicated environment, students may have many questions and comments which will remain undefined or unarticulated unless participating staff members create a congenial and effective forum for questions and answers. The students will also need help in organizing and integrating the enormous amount of raw information and experience included in program activities. Finally, they must be aided in applying what they have learned to their own career interests and future plans; old career outlooks must be defined and redefined in terms of the new outlooks provided by the program.

Figure 3 itemizes the kinds of circumstances and teaching interventions which facilitate student integration and use of program information and experience.

Exploring careers in an employer site is an enormously concrete and complicated learning experience. It is not by nature or intent, an academic exercise, the foregoing discussion of program objectives does not, in itself, indicate the actual structure of an exploration program; it merely provides some guidelines which can be used to identify in a comprehensive and orderly way the most important objectives of such a program. In effect, it should help program personnel to answer the first question in program planning: "What information and experience do we want to emphasize?"

Once the career exploration objectives for your program have been established, a summary of those objectives and the objectives of specific learning activities should be prepared for presentation to all participating employers.

## CAREER EXPLORATION PROGRAM OBJECTIVES

- I. Context: Identifying the Character and Mission of an Organization
  - A. Major product and service goals
  - B. Organizational structure
  - C. Essential resources: materials, facilities, expertise
  - D. Special problems and other issues unique to operations
  - E. Management biases, priorities, and expectations
  - F. Organizational influence and interaction in the community
  - G. Consumer access to and use of the organization
  
- II. Careers: Defining the Characteristics of the Worker and the Scope of Work
  - A. Major career tasks and responsibilities
  - B. Work outcomes in products, services, and performance
  - C. Requisite abilities, skills, and temperamental traits
  - D. Necessary tools, equipment, and environmental conditions
  - E. Outstanding satisfactions and drawbacks of the job
  - F. Relation of a specific job to the work of the organization
  - G. Worker's feelings about the job and the organizational context
  
- III. Practical Career Information: Facts, Expectations, Procedures
  - A. Job-Specific Information
    1. Requisite training, experience, and ability
    2. Training programs available and opportunities for apprenticeships or other preparation
    3. Salary ranges, fringe benefits, and prerequisites
    4. Ladders of advancement and criteria for promotion
    5. Applicability of specific careers in other work settings
    6. Current employment outlook for specific jobs
  
  - B. Standard Employment Practices and Materials
    1. Application forms and procedures
    2. Entrance level testing and evaluation
    3. Interview forms and related employer expectations
    4. Performance evaluation criteria and practices
  
  - C. "Invisible Forces and Unwritten Laws"
    1. Notable "don'ts" of job acquisition and maintenance
    2. Employer expectations regarding the personal style and presentation of employees and applicants
    3. Management attitudes on hiring women and members of minority groups
    4. Union organization and influence
    5. The character and effects of the dominant management style

CAREER EXPLORATION PROGRAM OBJECTIVES  
(continued)

IV. Program Information and Experience

A. Establishing a Climate for Student-Employer Cooperation and Communication

1. Appropriating a physical space where relaxed and congenial discussion can take place throughout the program
2. Conducting a thorough orientation which:
  - a. Personally introduces the employer instructor to the students
  - b. Introduces the students to the employer in terms of:
    - (1) Their career interests
    - (2) Their career background and experience
    - (3) Their particular skills and abilities
    - (4) Their program expectations
    - (5) Their apprehensions and other initial feelings
  - c. Provides roles for student participation at the site
  - d. Defines student learning needs and interests
  - e. Outlines prospective program activities

B. Monitoring Student Response to Program Activities

1. Testing and strengthening the students' intellectual grasp of basic facts, concepts, and principles
2. Eliciting personal impressions and reactions
3. Encouraging questions and responding appropriately

C. Helping Students Integrate Learning

1. Reviewing critical facts, concepts, and principles
2. Illuminating relationships between experiences and ideas
3. Assessing old goals and plans in terms of new career information and experience

D. Helping Individual Students Use the Exploration In:

1. Defining new career directions
2. Selecting avenues of future exploration and action
3. Evaluating program activities
4. Utilizing the site as citizens and private individuals

CHAPTER III

SITE ANALYSIS

## CHAPTER III SITE ANALYSIS

RATIONALE AND PROCEDURE

After the objectives of a career exploration program have been determined and clarified, school staff members will initiate the site analysis process with site personnel. During a planning session, they will survey site resources and list those with the best potential in terms of program objectives. Since site analysis is a big job and the time available is generally limited, site personnel have developed the standard information-gathering process outlined here. This process is recommended since it can be used in a wide variety of employer settings and because it conforms to the major program objectives of career exploration. The following discussion explains how this process is implemented.

This procedure is specifically tailored to the needs of school personnel who are developing career exploration programs for groups of students who have had little or no exposure to the business world. The worksheets, therefore, are based on the assumption that general, introductory information is required which will have to be gathered in a single session, supplemented by a tour of the physical facilities.

The completed worksheets will provide information in three distinct categories which are directly related to the program objectives discussed in Chapter II. Worksheet I is used by school staff to identify the character and mission of the employer organization. The answers provided on this worksheet, together supply a general idea of the ~~CONTEXT~~ in which program activities will take place. Information from the employer in answer to these six questions will tell school staff what the organization

does, how it is structured, and which units and services might be available for program use. This information may also suggest facts, concepts, and topical issues for inclusion in presentations orienting the students to the organization.

Worksheets 2 and 3 concentrate the attention of school personnel on the most important learning resources for any career exploration program-- the actual CAREERS being pursued at the site. Worksheet 2 provides enough space for a complete list of jobs (by career area or department) throughout the entire organization. After a complete list of jobs has been developed, school staff members and site personnel should select a limited number of specific jobs to emphasize during implementation. The selection of these jobs can largely be carried out through a process of elimination. The five broad guidelines listed below can be followed to arrive at a manageable number of significant jobs:

- (1) Any careers or career areas which are treated in a substantive way by other employer programs in this cluster or in other clusters can be eliminated.
- (2) Any careers which are common to any business or institution can be eliminated. Clerical, maintenance, and other support jobs are usually eliminated.
- (3) If site personnel are convinced that certain careers will be completely off-limits for students due to security, union, or safety prohibitions, they need not be analyzed on Worksheet 3.
- (4) School and site personnel should then decide which of the remaining careers are most unique or most characteristic of a specific site and list those careers to receive special attention in the program.
- (5) Finally, the school and site personnel should review the program objectives and determine which of the careers can best be used to achieve those objectives.



Once the guidelines listed on the previous page have been followed, program personnel should have a list of careers which are excellent prospects for inclusion at a given time. In order to design learning activities to illustrate what these careers actually involve, program developers will have to examine each career in more detail. Worksheet 3 can be used to unearth and organize the topics and materials which will be most useful in planning learning activities for each career exposure. Remember, you are not preparing a definitive job description for use in the Dictionary of Occupational Titles; rather, you are analyzing each job in terms of student needs and possible learning activities. For each analysis, the official job title (and the related career area or department) should be entered in the lefthand margin of the form.

Learning activities which "teach" students about specific careers are usually based upon major career tasks. These tasks become the foci for both discussion and hands-on involvement. The first column of this worksheet, therefore, provides space for a list of tasks (and related settings). The four remaining columns can be used for information on observable products/services, equipment, training materials, and any available displays, collections, or demonstration which instructors and students might use in exploring these tasks. As this worksheet is completed, possible learning activities will begin to come into focus.

Worksheet 4 can be used by school staff to gather information related to the program objective entitled PRACTICAL CAREER INFORMATION. Although a great deal of this information is provided on Worksheet 3 (under Training Materials, Audio-visual Aids), a great deal of job-specific and

organization-specific information can be gathered from site personnel in several typical support services. At the left-hand margin of this form four major facilities or support services are listed which usually have a great deal of concentrated, official information. Some of the resources available from these sources are detailed across the top of the form. To complete this worksheet move from left to right, asking the kinds of questions listed below:

Which of your Public Information Officers could speak to our students about your organization's services?

Does the Public Relations Office have company literature or other materials for student use?

What audio-visual materials and equipment might we use?

Does the Public Information Office have standard programs or demonstrations which we might see?

Frequently, the resources listed on Worksheet 4 will be used in orientation activities or in special program segments which deal with the organizational context or practical career information. In some cases (especially through personnel services), job-specific information may be integrated into the activities related to specific CAREERS. A copy of Worksheet 4 has been completed to suggest the kinds of information program personnel may collect and find useful in planning program learning activities.

WORKSHEET 1 - CONTEXT: DEFINING THE ORGANIZATION

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1. What are the major goals of your organization in terms of: (a) the production of goods and materials, (b) performance of commercial and social services, (c) community involvement, and (d) other possible priorities?
  
  
  
  
  
  
  
  
  
  
2. What are the major departments or divisions of your organization, and what is the primary function of each?
  
  
  
  
  
  
  
  
  
  
3. How are these departments or divisions related to each other in normal operations?
  
  
  
  
  
  
  
  
  
  
4. Does your organization have external operations, branch offices, auxiliary services, or affiliates which might be included in the exploration program?
  
  
  
  
  
  
  
  
  
  
5. What facts, concepts, and topical issues should be presented to students so that they will understand the work of your organization?
  
  
  
  
  
  
  
  
  
  
6. What descriptive literature and audio-visual aids are available for use in orienting students to your organization?

WORKSHEET 2 - CAREERS: JOB CATEGORIES WITHIN THE ORGANIZATION

DEPARTMENT OR CAREER AREA: \_\_\_\_\_

JOB TITLE: \_\_\_\_\_ MIN. ED. REQ.: \_\_\_\_\_

(Function) \_\_\_\_\_

JOB TITLE: \_\_\_\_\_

JOB TITLE: \_\_\_\_\_

JOB TITLE: \_\_\_\_\_

DEPARTMENT OR CAREER AREA: \_\_\_\_\_

JOB TITLE: \_\_\_\_\_

JOB TITLE: \_\_\_\_\_

JOB TITLE: \_\_\_\_\_

JOB TITLE: \_\_\_\_\_

DEPARTMENT OR CAREER AREA: \_\_\_\_\_

JOB TITLE: \_\_\_\_\_

JOB TITLE: \_\_\_\_\_

JOB TITLE: \_\_\_\_\_

JOB TITLE: \_\_\_\_\_

WORKSHEET 3 - CAREERS: ANALYSES OF SPECIFIC JOBS

	MAJOR TASKS IN THEIR SETTINGS	OBSERVABLE OUTCOMES (PRODUCTS/SERVICES)	EQUIPMENT, FACILITIES OR SYSTEMS	TRAINING MATERIALS, AUDIO-VISUAL AIDS	AVAILABLE DISPLAYS, COLLECTIONS, DEMONSTRATIONS
DEPT.:  JOB TITLE:					
DEPT.:  JOB TITLE:					

TYPICAL CAREER INFORMATION RESOURCES: PEOPLE, MATERIALS, AND PROGRAMS

STANDARD CAREER INFORMATION SUPPORT SERVICES

	POSSIBLE SITE SPECIALISTS	WRITTEN MATERIALS	AUDIO-VISUAL MATERIALS & EQUIPMENT	PROGRAMS, DEMONSTRATIONS & TOURS
PUBLIC INFORMATION & P.R. SERVICES				
PERSONNEL PRACTICES & SERVICES				
EDUCATION/TRAINING FACILITIES				
COLLECTIONS, FACILITIES				

TYPICAL CAREER INFORMATION RESOURCES: PEOPLE, MATERIALS, AND PROGRAMS

STANDARD CAREER INFORMATION SUPPORT SERVICES

PUBLIC INFORMATION & P.R. SERVICES	POSSIBLE SITE SPECIALISTS	WRITTEN MATERIALS	AUDIO-VISUAL MATERIALS & EQUIPMENT	PROGRAMS, DEMONSTRATIONS & TOURS
	Community Affairs Officers Public Relations or Public Information Officers	Brochures News releases Clipping file Trade periodicals	Descriptive and promotional films and slides Documentary films of community services	Orientation programs Programs for public groups e.g., speech at the Rotary Club
PERSONNEL PRACTICES & SERVICES	Personnel Officers Writers	Job descriptions Job application forms Resume formats Sample tests Personnel folders Salary & benefit data Performance/review forms	Orientation films Training films	Standard interviewing procedures Standard selection process Performance review criteria Seminar materials
EDUCATION/TRAINING FACILITIES	Vocational Teachers In-House Professionals	Training manuals Simulation aids Sample tools Evaluation forms	Training films and slides	Teaching demonstrations Training classes
SPECIAL COLLECTIONS, FACILITIES	Librarians Archivists Researchers Curators Display Artists	In-House Library Historical documents Current and past studies Museum collections Special displays	Film collections Slides Graphs and charts Standing exhibits Topical displays	Tours and projects

CHAPTER IV

DEVELOPING EXPLORATION PROGRAMS



## CHAPTER IV - DEVELOPING EXPLORATION PROGRAMS

A. SELECTING LEARNING ACTIVITIES

Perhaps the most difficult part of the program development is the selection by school staff members of specific activities to give career exploration both form and substance. Demonstration and pilot site personnel have discovered roughly thirty-three types of instructional activities which are especially effective. These activities can naturally be ranged along a continuum of eight clearly definable levels, with each level representing a different teaching method and serving a different function. Moreover, each level involves learning experiences which are progressively more closely related to real work activities and which provide ever-increasing opportunities for student involvement.

As a whole, this continuum includes the broadest possible spectrum of methods and purposes. At one end of the spectrum we find the rather commonplace approach whereby a teacher provides information in a lecture. At the opposite end lies the most effective method of career exploration: student involvement in hands-on experience with real work tasks. Each level with its associated variations has an appropriate function in career exploration; each has strengths and limitations and each can make a unique contribution.

The following outline presents the continuum of learning activities, showing each variation and illustrating its use with an example from actual program experience. A close examination of the whole continuum is absolutely essential, since the activities and examples it contains will be major reference points in subsequent sections of this chapter.

All of these learning activities and their associated variations have significant value. Each fulfills a given content goal more effectively and economically than another, but each has definite limitations which must be recognized. One of the central challenges of program planning lies in clearly identifying the program objective of the moment and selecting the most powerful learning activity for its accomplishment. If goals and activities are well matched, desired learning outcomes follow naturally.

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## 1. LECTURE PRESENTATION OF FACTS, CONCEPTS, AND PRINCIPLES (UNAIDED)

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**Purpose:**

To deliver basic factual information to assist students in understanding and integrating their observations and experience at the employer site.

**Probable Use:**

In a class or conference room setting: during initial orientation, as preparation for active participation, or as a summary exercise aimed at integrating what students have seen, heard, and done during their exploration activities.

**Possible Content:**

- Simple definitions of an organization's goals, processes, and products;

An insurance company performs X processes and procedures in order to provide Y services.

- Complex overviews of organizational structure and processes: The community bank is divided into six major departments which have distinctly different functions: ....

- Explanations of major work-related issues and concerns:

Safety practices, office practice and procedures, the training requirements and benefits of a specific job.

- A presentation by a panel of workers representing several different jobs in a single employer site:

A social worker, a psychologist, and an aide discuss various interrelated social services provided by the community agency where they work.

## 2. AUDIO-VISUAL PRESENTATION WITH COMMENTS BY A LECTURER

### Purpose:

To deliver necessary facts, concepts, and principles using high interest media which illustrate abstract information in a concrete, immediate manner.

### Probable Use:

In a class or conference room setting: during initial orientation, as preparation for active participation, or as a summary exercise aimed at integrating what students have seen, heard, and done during their exploration activities.

### Advantages

Can be used most effectively to convey very basic introductory information in a highly-controlled setting away from possible distractions and to prepare students for more complex learning activities, e.g., to describe a production process they are going to observe, to present the legal issues in a trial they are going to attend, or to present the rules of a management game they are going to play.

### Possible Content:

The same types of information provided in Learning Activity 1:

- Using maps, charts, graphs, or simple descriptive literature.
- Using slides, tapes, photo-exhibits, etc.
- Using short films about the organization, chief concerns, or activities of a specific employer site.

### Cautions

Although students will pay careful attention to audio-visual materials (if reasonably interesting and current), they quickly lose interest in unaided lecture presentations.

Lectures cannot communicate the actual experience of work.

### 3. DIRECT STUDENT OBSERVATION OF REAL OR SIMULATED WORK ACTIVITIES

#### Purpose:

To move students beyond the abstractions of factual information into the actual work environment; to provide them with high impact demonstrations of job duties, equipment, and processes.

#### Probable Use:

In appropriate work settings and/or in a classroom area where simulations, supplementary lectures or discussions can be held.

#### Possible Content:

- A "walk and talk, once-over-lightly" tour of the whole operation: Students move rather quickly through six departments of a community bank after a brief lecture-orientation.
- A "try it, you'll like it" intensive tour of a few selected areas, with planned opportunities for:
  - The examination and handling of equipment
  - Demonstrations by site personnel
  - Casual student-worker conversation
  - Simple task trials by each student
- Structured teaching demonstrations whereby workers show the students where they work, their equipment, and major work activities:
  - An X-ray technician takes, develops, and reads a chest X-ray, commenting on the process as he or she goes along.
- Students observe employer job-training classes and participate where possible:
  - Students observe an introductory class for trainees and participate in discussion periods at the invitation of the instructor.
  - Employees simulate a round-table decision-making meeting which is typical of their work:
    - Social workers review the file of a fictitious client and decide on an appropriate course of action, possibly with student participation.
- Students observe a real occupational activity and participate in a follow-up discussion:
  - Students observe a criminal or civil trial, a veterinary examination, a surgical procedure, the taping of a TV or radio show.

#### Advantages

Provides a good "overlooking" technique with increased student activity and mobility, greater stimulation, and more student involvement questioning, touching, examining, and observing which makes the program content more concrete.

The variations listed for this learning activity extend student understanding by providing progressively broader opportunities for student participation in real and simulated work activities.

Demonstrations can be used to teach basic occupational skills if the students are given an opportunity to apply what they have learned immediately.

#### Cautions

Although tours do not result in specific skills or far-reaching learning outcomes, demonstrations can be used to illustrate step-by-step activities and processes.

Simulations require a great deal of preparation, interpretation, and explanation.

## 4. SUBSTANTIVE DISCUSSION BETWEEN LEARNING SUPERVISORS AND STUDENTS

### Purpose:

To give students an opportunity to shape, articulate, and integrate significant exploration information and experience.

### Probable Use:

In a class or conference room setting before and/or after such activities as tours, films, simulations, hands-on participation, etc.

### Possible Content:

- Exchanges of facts, opinions and expectations: Learning supervisor asks each student to comment on his or her career exploration activities.
- Structured question and answer sessions geared to reviewing activities or to establishing critical facts, concepts, or principles: Identify three jobs you observed today and tell us the major responsibilities of each job.
- Guided questioning to determine student reactions to their observations and experience in the employer site: Would you like to be a bank teller, a data processor? (Why? Why not?)
- Systematic discussion designed to enable students to assess, summarize, and integrate their impressions and experience: Think for a few minutes about all the jobs you have seen here and then tell us which of them are most closely related to your interests and abilities.
- Oral presentations by students featuring their assessments of work-related activities and/or problems: Each student is asked to give a two-minute presentation evaluating the effectiveness of program activities.

### Advantages

Encourages oral participation as well as the more intellectually demanding processing of information and experience by students.

Group discussion is the most powerful method of helping students to understand, remember, integrate, and personalize what they have learned.

Discussions can be tailored to specific topics and may last anywhere from a few minutes to an hour depending on the topic.

### Cautions

Initially, students may need to be encouraged to take part in discussions guided by the learning supervisor; as the students become more experienced, their confidence will grow and they will become increasingly willing and able to make meaningful contributions.

5. BASIC SKILLS DEVELOPMENT PROJECTS USING SITE RESOURCES

Purpose:

To teach specific basic skills and demonstrate how they are related to specific work activities at the employer site.

Probable Use:

In the employer site, as employer-assigned homework to be discussed on site, or in a classroom to follow up exploration activities.

Possible Content:

- Students use employer equipment to solve math problems: Employer helps students to calculate the quantity of sulphur by-products found in anti-pollution equipment.
- Students use simple research methods to explore questions which arise on site: Employer helps students prepare a simple questionnaire to be administered to their peers and analyzed during a subsequent program day.
- A social studies teacher or guidance counselor assists students in researching and reporting their findings on a site-related topic: How has the union movement influenced personnel practices in the skilled trades?

Advantages

Enables students to become "workers" in terms of exploration activities which are related to career performance but which do not require job training, the use of expensive equipment, or a great deal of staff time and energy.

Career exploration activities cover many topics that can be used by students in assignments for other classes, e.g., as the subject of a paper for an English class.

Cautions

Although many careers require extremely high levels of technical and analytical skills, projects can be used to introduce them to the kinds of skills needed for specific careers.

4-8

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## 6. ROLE-PLAYING AND PROBLEM-SOLVING GAMES AND PROJECTS

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### Purpose:

To allow students to participate in highly imaginative, personalized exploration of worker roles and major organizational issues, such as human relations, budgeting, management strategies, etc.

### Probable Use:

In seminar or classroom, following such instructional activities as lectures, discussions, or demonstrations.

### Possible Content:

- Students select and work out a typical personnel problem or potential conflict which has been stated hypothetically: Union spokesmen, management representatives, and an arbiter negotiate the terms of a new contract.
- Students work as a group to draft a personnel policy designed to establish fair criteria for promotion in a specific job category.
- Students draw up a hypothetical budget for a specific site and then check their guesses against the actual figures.
- Each student creates a simple product which might be used to advertise one aspect of the site which he or she considers particularly striking: With the help of a public relations specialist, each student writes a news release describing a favorite zoo animal.

### Advantages

These action-oriented activities are both convenient and practical since they require no specialized setting, training, or equipment.

Can be used to acquaint students with site and/or job-specific tasks, problems, and processes (e.g., decision making) and move students closer to real work experiences.

### Cautions

Games should be designed to hold student interest and to provide students with an opportunity to apply the information they already have on specific jobs or sites.



## 7. SIMULATION OF REAL WORK ACTIVITIES

### Purpose:

To allow students to apply their knowledge and experience to tasks which approximate the challenge and satisfaction of real work.

### Probable Use:

In a staged or real work setting -  
- after receiving information and following observational activities, using minimal props.

### Possible Content:

- Students take turns performing one simple task with minimal equipment: Use the Geiger counter to locate two sources of radiation in the supply room.

- Students perform a logical sequence of tasks which represents several major duties of a given job: using a small conference room supplied with a selection of food samples, a microscope, and one reference text, an F.B.I. entomologist supervises the students as they prepare slides, tentatively identify contaminants, and check their findings.

- Students prepare and enact a significant occupational activity which involves the imaginary mastery of several interrelated jobs or procedures: Using actual case histories, students script, cast, and conduct a mock criminal trial (to be video-taped and critiqued by an attorney or a paralegal specialist).

To get concrete information on hiring procedures and job requirements, students take a sample employment test, fill out a real job application, and participate in interviewing a "potential employee," with the assistance of a personnel specialist.

- Students participate in "interlocking" simulations which show how many jobs are involved in a firm's production process. Students use their own visit to a local newspaper as the basis for a feature story which they write, edit, set, and "help" to publish.

### Advantages

Can provide students with opportunities to carry out tasks using real equipment, with real product or service outcomes.

Although they are still not "the real thing," these activities enable students to experience a very close approximation of some jobs without interrupting organizational processes and without being exposed to potential safety hazards or legal infractions.

### Cautions

In sites where dangerous, complex, or high-security operations are carried out, simulations may be the only kind of hands-on experience that can be provided in a career exploration program.

## 8. PERFORMANCE OF REAL WORK TASKS WITH REAL WORK OUTCOMES

### Purpose:

To give students firsthand experience with the demands and satisfactions of real work.

### Probable Use:

In a program site, after considerable orientation, observation, and supervised practice activities.

### Possible Content:

- Students provide assistance or support in observer/apprentice relationships with employees: Typical duties might include typing, filing, cleaning equipment, recording data, and answering the telephone.
- Students assume full responsibility for handling one important duty of the employees they work with: One student handles counter sales in a small retail store.
- Students render a full range of services under the supervision of professional workers: One student studies models, gathers materials, and designs a display window for use in a clothing store's fall sales campaign.

### Advantages

These are the most effective learning activities and have the greatest, most lasting impact on subsequent career decisions.

### Cautions

In some sites, the performance of real work tasks by students may be extremely difficult to arrange.

The foregoing outline was presented to identify the nature and range of purposes of each type of learning activity. This outline also suggests, implicitly, how these activities may be linked to reinforce each other most effectively. The following discussion provides more explicit information on how the various learning activities can be used most effectively to reinforce each other.

### B. SEQUENCING LEARNING ACTIVITIES

Establishing meaningful activity sequences is generally one of the last steps in pre-operational program development. If this important step is neglected, students may view site exploration as a loose assemblage of seemingly unrelated activities. For example, courtroom observation is always popular, since trials inevitably involve interesting human interactions. Students may not, however, associate their observation of such real-life dramas with the roles of participating legal personnel or with the process and machinery of the criminal justice system.

Since site instructional staff may be intimately familiar with their individual responsibilities alone, they may not be able to assist students in understanding these connections; therefore, such connections should be stressed in the design of the program. The careful sequencing of activities should minimize omissions of this type while intensifying the impact of specific activities. The relatively simple and widely applicable rationale for sequencing presented here suggests a reasonable way of both providing a "super-structure" for the exploration program and scheduling the various activities included in each segment of the program.

The sequencing of program activities presented here is based upon the four phases of learning discussed below.

Phase I. Students arriving at a site encounter a strange environment and a number of new people whose responses and activities seldom conform to their expectations. Beyond that "strangeness" lies an apparent gulf between student knowledge and experience and the intellectual and practical concerns of site personnel. Some students may, in fact, have a great deal of personal interest and knowledge which will be useful in their exploration activities, but they may not realize this and they may not have decided how much of an investment they can or want to make in the exploration program. The first responsibility of site personnel is to HELP STUDENTS FIND A PERSONAL CONNECTION between themselves and the site personnel and their chosen careers. Effective employee instructors, in their initial encounters with students, help the students to relate their own knowledge, interests, and values to the teaching focus of the site.

A few basic questions which lead to group discussion may provide students with the personal connection required to make their site activities more meaningful.

Site staff may also use audio-visual aids or demonstrations to help the students develop a stronger personal connection to, or interest in, site activities by appealing to the needs, feelings, and interests of the students. In other words, the instructors must begin their work by encouraging the students to establish a personal connection between themselves and the program.

Phase II. Before proceeding with scheduled program activities, the instructor must also deliver a body of essential facts and concepts provide students with a shared background of information for use in their subsequent activities, i.e., the instructor must help the students to ESTABLISH A KNOWLEDGE BASE as a basis for program experience and involvement.

Generally speaking, the first two types of learning activities -- lectures and audio-visual presentations -- are the most economical ways of helping students to establish a KNOWLEDGE BASE. These activities can be supplemented and extended by directed discussions.

Phase III. Although abstract definitions of facts, concepts, and principles are necessary points of departure in developing understanding, students may need to have such abstractions illustrated in concrete ways. The third step in structuring an exploration program involves the demonstration of such abstractions. The many options outlined under Learning Activity 3 -- tours, demonstrations, observations, and simulations -- provide many opportunities for the CONCRETE ILLUSTRATION OF ABSTRACT ELEMENTS IN THE KNOWLEDGE BASE.

Phase IV. After making a personal connection to the program and developing a knowledge base for which abstract concepts have been concretely illustrated, students will be both ready and eager to APPLY WHAT THEY HAVE LEARNED. The "heavy end of the activity continuum," Learning Activities 4 to 8, offers approximately 15 activity options of varying complexity which are progressively more closely related to real work tasks. All of these activities provide students with opportunities to apply and practice what they have learned.

These four phases of learning are clearly related to the continuum of learning activities: from lecture to work tasks, from abstract concepts to application, from ideas about work to work itself. The following outline shows the four phases of the learning sequence, listing under each descriptive heading the learning activities which are most likely to be useful during that learning phase.

**PHASE I - HELPING STUDENTS ESTABLISH A PERSONAL CONNECTION TO THE SITE**

Learning Activity 3 - Direct Student Observation

Learning Activity 4 - Substantive Discussion

**PHASE II - ESTABLISHING A KNOWLEDGE BASE**

Learning Activity 1 - Lecture Presentation

Learning Activity 2 - Audio-Visual Presentation

Learning Activity 4 - Substantive Discussion

**PHASE III - ILLUSTRATING ABSTRACT ELEMENTS**

Learning Activity 3 - Direct Student Observation

Learning Activity 4 - Substantive Discussion

**PHASE IV - APPLYING WHAT HAS BEEN LEARNED**

Learning Activity 5 - Basic Skills Development

Learning Activity 6 - Role-Playing and Problem-Solving

Learning Activity 7 - Simulation of Real Work Activities

Learning Activity 8 - Performance of Real Work Tasks

Learning Activity 4 - Substantive Discussion

This presentation is, of course, a rather radical simplification of the complex and spontaneous learning process which occurs in effective programs. It should be used as a general guideline and not as a format.

which must be exactly followed. The Appendix in this Handbook contains sample program plans from the pilot sites and demonstration site. All of these programs have been in existence for a year or more and, therefore, have been continuously monitored and evaluated. These programs were not worked out in their final form in the initial pre-operational planning sessions; rather, careful observation and evaluation by school personnel made it possible for the final programs to be developed in such a way that they now provide effective career exploration experience for students.

CHAPTER V

MONITORING EXPLORATION PROGRAMS



## CHAPTER V - MONITORING EXPLORATION PROGRAMS

MONITORING AND DOCUMENTING PROGRAM LEARNING ACTIVITIES

Much of the substantive improvement of an exploration program will result from monitoring the program. This chapter presents a process that can be used to organize the observations and recommendations made by program staff who monitor the program. Their impressions and recommendations will later provide the major basis for program revision.

A successful exploration program requires continuing observation, evaluation, and revision. Counselors and teachers, with specific knowledge of student needs and experience in curriculum development, can provide valuable assessments and recommendations for program revision, based on direct observation of program activities. The Exploration Program Observation Record provides one method which could be used to collect first-hand information to be used in evaluating the effectiveness of current program activities and determining what changes should be made in those activities.

In Part I of this form, observers can record objective descriptions of program activities and their associated learning objectives. Part II provides a list of evaluative criteria and a section where each activity can be rated in terms of each criterion. A simple average rating can then be calculated for each activity and entered in the designated column in Part I of the form. If all program observers employ the evaluation criteria in the same general way, the resulting average rating will provide a very useful method for comparing the effectiveness of various learning activities from one site or cluster to another.

Part III of the form can be used to list the outstanding strengths and weaknesses of the current program and make recommendations for revisions. This section, completed during or soon after actual program observation, may later be used as a basis for discussion when school and employer representatives meet to evaluate and modify the exploration program. The final section of the form (PART IV) can be used to record the assessment of program strengths and weaknesses by employer personnel and to document proposed changes in program activities.

No matter how thoroughly a program has been planned before actual implementation begins, its effectiveness can be judged only when the students and employers actually interact. The scope of future program activities will depend almost entirely on the quality of their mutual efforts and the judicious reports of relatively objective observers. The Observation Record can be used to support a strategy designed to focus and organize information and recommendations for positive change.

EXPLORATION PROGRAM OBSERVATION RECORD

SITE: \_\_\_\_\_  
 CLUSTER COURSE: \_\_\_\_\_

OBSERVER'S NAME: \_\_\_\_\_  
 DATE OF OBSERVATION: \_\_\_\_\_ TIME BEGAN: \_\_\_\_\_  
 TIME ENDED: \_\_\_\_\_

DESCRIPTION OF ACTIVITIES OBSERVED

DESCRIPTION OF ACTIVITIES OBSERVED

FIRST ACTIVITY

THIRD ACTIVITY

SECOND ACTIVITY

FOURTH ACTIVITY

5-3

To be completed before site visit	CRITERIA FOR RATING ACTIVITIES	1st Activity	2nd Activity	3rd Activity	4th Activity
	Relevancy to Pre-established Learning Objectives				
Richness in Facts, Concepts, Principles					
Richness in Interest Level					
Quality of Student Preparation					
Student Verbal Responsiveness					
Student Non-Verbal Responsiveness					
Degree of Hands-on Experience					
Employer Motivation-Responsiveness					
Effectiveness of Employer Performances					
SCALE	1. None 2. Minimal 3. Somewhat 4. Considerable 5. Superior	(1) Total	(2) No. of criteria rated	(1) + (2) = Average Rating	

70



**III. OBSERVATION ASSESSMENT AND RECOMMENDATIONS**

(A) Strengths of Current Program:

(B) Weaknesses of Current Program:

(C) Recommended Extensions of Current Activities:

(D) Recommended Deletions from Current Activities:

(E) Recommended Additions to Current Activities:

**IV. RECORD OF PROGRAM REVISION MEETING**

(A) Employer's Assessment of Program Strengths:

(B) Employer's Assessment of Program Weaknesses:

(C) Proposed Extensions of Current Activities:

(D) Proposed Deletions from Current Activities:

(E) Proposed Additions to Current Activities:

5-4

APPENDIX

PLANS FOR IMPLEMENTING EXPLORATION PROGRAMS

# SAMPLE

## CAREER EXPLORATION AT THE FOOD AND DRUG ADMINISTRATION

(GOVERNMENT SERVICE CLUSTER)

### DAY #1

#### Orientation Lecture: Defining the Goals, Structure, and Processes of the F.D.A.

9:00 A.M. -  
9:30 A.M.

- Role of F.D.A. as a Law Enforcement Agency
- Organization of the F.D.A. (using chart)
- History and Development of the F.D.A.
- The "Project System" and "Regulatory Programs"

#### Question and Answer Session on Lecture Presentation

9:30 A.M. -  
10:00 A.M.

#### Career Exposures: Investigator, Inspector

10:00 A.M. -  
noon

##### A. Lecture on their

Daily Tasks and Activities

Responsibilities

Authority

##### B. Film - "How to do a Bakery Inspection"

##### C. Demonstration of Typical Uses of Equipment and Materials

Polaroid SX 70 and Close-up Lenses

Professional Diaries, Notices of Inspection, Forms

##### D. Practical Exercise for Students

Students take inspection snapshots of sample display materials

##### E. Lecture-Demonstration on Sample Collecting

F. Practical Exercise for Students

Students use available display materials as official samples and complete the appropriate forms.

Lecture Preparation for Simulated Bakery Inspection by Students

1:00 P.M. -  
2:45 P.M.

Purpose, Scope, Authority of Investigation

Checklist for Investigation

Related Written Reports

Students Divided Into Two Competing Teams

Students Inspect Simulated Bakery Establishment

3:00 P.M. -  
4:00 P.M.

Role-play Introduction to Owners (played by F.D.A. Investigators)

Identify Contaminants

Collect and Prepare Samples for Laboratory Analysis

Complete Official Forms

Document Inspection Investigation with Polaroid SX 70 Snapshots

DAY #2

Formal Preparation of Samples Collected from Simulated Bakery Inspection

9:00 A.M. -  
9:30 A.M.

Container Placement  
Official Identification

Simulated Drug Warehouse Inspection9:30 A.M. -  
noon

- A. Lecture Presentation on Possible Violations
- B. Discussion of Drug Inspection Techniques
- C. Slide Demonstration of Field Drug Inspection
- D. Film - "Safe and Effective Pharmaceutical Manufacturing"
- E. Practical Exercise: Students participate in a training simulation (designed for F.D.A. inspectors/investigators) by listing violations apparent in the film "No Margin for Error, Part I" and then check their responses against the correct findings presented in Part II of the film.

Films on Hazards of Drug Abuse1:00 P.M. -  
2:30 P.M.

"Quakery"

"Mind-Benders"

Discussions of FilmsParaprofessional Investigation/Inspection Careers2:30 P.M. -  
4:30 P.M.

Sample Custodian

Import Technician

Supply Clerk

Representatives from each of these career areas discuss their work with the students.

DAY #3Careers in the Laboratory Sciences: Chemist, Entomologist9:00 A.M. -  
noon

- A. Tour of F.D.A. Scientific Laboratories
- B. Lecture-Discussion on:

Purpose of Laboratory Science in the Work of the F.D.A.



Laboratory Processes Used to Analyze Samples  
Collected in Field Investigations

How to Write up a Laboratory Worksheet

C. Practical Exercise:

1:00 P.M. -  
2:00 P.M.

Students complete laboratory worksheets for their samples

Students isolate insect parts from their contaminated samples and prepare microscope slides

They examine the slides under a microscope to identify contaminants using a reference book key

They continue their use of microscopes, using human and animal hair samples

Slide Presentation: "Insects as Food Contaminators."

2:00 P.M. -  
2:30 P.M.

Lecture-Discussion - How the biology of insects determines the laboratory tests used to isolate and identify food contaminants

Practical Exercise: Students write up their microscopic study findings and prepare a report to be given to the Compliance Officers on the next program day

2:30 P.M. -  
4:00 P.M.

DAY #4

Lecture-Discussion on the Work of Compliance Officers

9:00 A.M. -  
10:30 A.M.

Review of Compliance Activities

Definitions of "Seizures," "Warrants," and "Prosecution"

Possible Regulatory Actions

Practical Exercise: Students prepare their simulated bakery inspection for regulatory action

Lecture on the Work of Public Affairs Officers in the F.D.A.

10:30 A.M. -  
noon

Duties and responsibilities

Relationship to other F.D.A. branches

Film from the Public Affairs Office - "Read the Label, Get a Better Table"

Careers in Radiological Health

1:00 P.M. -  
2:00 P.M.

- A. Lecture on "The Nature of Radioactivity"
- B. Microwave Oven Demonstration (Illustrating different types of radiation)
- C. Simulation-Students learn how to use simple Geiger Counters and are asked to discover hidden sources of radiation

Lecture Presentation - Information about Civil Service Employment

2:00 P.M. -  
3:00 P.M.

G.S. Ratings

Salaries and Benefits

Training and Experience Requirements for Careers Explored at the F.D.A.

Wind-up Question and Answer Session

3:00 P.M. -  
4:00 P.M.

## SAMPLE

CAREER EXPLORATION AT THE PHILADELPHIA FREE LIBRARY

## (COMMUNICATIONS AND MEDIA CLUSTER)

DAY #1

Personalized Tour: One or two students accompany a single site instructor through different sections of the library. The instructors get to know the students and assess their interests and needs. At the end of the tour, the guide allows the students to choose one or two paperback books which will be used in a book display project on Day #4.

9:00 A.M. -  
noon

Lunch: Students eat lunch with their guides, discussing what they have seen during the morning and the next activity scheduled.

noon -  
1:00 P.M.

Students Become Film Reviewers: The instructors explain the goals and techniques of film reviewing and hand out review sheets for each student to use in writing critiques of several short films. After reviewing and commenting on each, the instructors guide the students in a casual discussion of the films, focusing on the critical question librarians must answer, "Should the library purchase this film?"

1:00 P.M. -  
4:00 P.M.DAY #2

Students are divided into two groups which alternate between two special projects: "Using Newspapers as References" and "Interviewing for Career Information."

Using Newspapers as Reference Sources: A librarian explains and demonstrates the use of microfilm readers to search for information. Students are then asked to find out what was happening in Philadelphia on the day of their birth. (A sample student response form follows the program plan.)

9:00 A.M. -  
11:30 A.M.

Interviewing for Career Information: Students develop an interview form and select two library departments in which to search for answers to their questions. Each student then approaches one worker in each of the two departments. A student or a librarian takes Polaroid snapshots to document the interviews.

12:30 P.M. -  
3:00 P.M.

A Visit to the Stations Department: Students visit the mobile library equipment which services hospitals, prisons, and other public institutions. An orientation to the Free Library as an organization is provided here.

3:00 P.M. -  
4:00 P.M.

DAY #3

"Reference-Run-Around Game": Librarian instructors place many common reference books on several tables and divide the students into competing teams. Throughout the morning, students are supplied with reference questions and attempt to answer as many as possible -- in writing. The librarians move about the room, helping the students to identify appropriate reference sources and checking their answers. (A list of some of the reference books supplied follows this program plan.)

9:00 A.M. -  
noon

Visit to the Law Library: A librarian explains the specialized function of the law library and helps the students to formulate questions of personal interest, e.g., "How fast can you drive legally in Nevada?" The students then use library resources to find the answers to their questions.

1:00 P.M. -  
4:00 P.M.

DAY #4

Students are again divided into two groups which take turns working on two new projects, "Developing a Slide Show and Narrative on Their Library Experience" and "Creating a Book Display" for the paperback books they collected during the morning of the first program day.

Developing a Slide Show and Narrative on Their Library Experience: Using the pictures taken during their interviews and other portions of the program, students create an audio-visual narrative based on their impressions of the exploration program.

9:00 A.M. -  
11:30 A.M.

Creating a Book Display: Using pictures and written statements, each student creates a promotion to show other students why the book he or she selected is worth reading.

12:30 P.M. -  
3:00 P.M.

Wind-Up Session: The two groups of students join to show each other what each group has done on the two projects.

3:00 P.M. -  
4:00 P.M.

SAMPLE

NEWSPAPER PROJECT SHEET

(PHILADELPHIA FREE LIBRARY)

Check any Philadelphia newspaper that appeared on the day you were born.  
Fill in your name as well as the name and date of the newspaper; then  
answer the following questions:

Nicholas Borachasky  
Name

The Philadelphia  
Inquirer  
Newspaper

Sept. 16, 1959  
Date

What was playing at a local movie theatre?

- South Pacific

How much did a pair of shoes cost?

- \$7.99

What was the headline of the day?

- President Eisenhower meets Soviet Premier Nikita S. Khrushchev.

What was the major sports headline?

- Giants Blast Reds 13-6 and hold on to N.L. Lead.

What was the weather like?

- Cloudy; Low of 58, High of 79.

## SAMPLE

THE FREE LIBRARY OF PHILADELPHIA - "REFERENCE RUNAROUND"YELLOW PAGES:

A classified telephone directory which lists companies, products, and services alphabetically by type of business. An index in the back lists the headings used in the directory.

BULLETIN ALMANAC:

Provides current information about the Greater Philadelphia area on a wide range of topics; an index is provided.

FAMOUS FACTS:

Records first happenings, inventions, and discoveries in the U.S.; indexes are arranged by year, day of the month, and personal name.

WORLD BOOK:

Provides brief articles on a wide variety of topics arranged alphabetically; many of the articles are supplemented by graphs and/or illustrations.

GUINNESS BOOK OF WORLD RECORDS:

Gives facts and figures on the longest, largest, oldest, greatest... in sports, science, business, the arts...

ENCYCLOPEDIA OF WITCHCRAFT:

Contains articles arranged alphabetically on the subject of witchcraft as practised in many countries between 1450 and 1750.

THE WAY THINGS WORK:

Illustrated encyclopedia of technology which provides diagrams and short explanations of machines and gadgets, scientific principles, and industrial processes; an index is provided.

GROVES DICTIONARY OF MUSIC:

Alphabetically arranged entries on rock music and musicians provide short biographies of personalities, information on styles, instruments, group members, albums and/or singles. The appendix lists top-selling singles and albums by year.

NEW PICTORIAL HISTORY OF THE TALKIES:

Pictorial history of motion pictures since the invention of the sound track. Pictures are arranged chronologically and the highlights of each year are noted; an index is provided.

MENKE'S ENCYCLOPEDIA OF SPORTS:

Contains information on the history, rules, and champions of nearly 80 different sports in addition to a tabulation of current records and statistics for these sports. An index is provided.

FACT BOOK:

Current alphabetically arranged information on some 150 foreign countries and territories with a map for each country.

CURRENT BIOGRAPHY:

Published monthly with a bound annual volume. Contemporary biographical essays on people of varied nationalities in different fields. Each monthly issue contains a cumulative index for the current year, and each bound volume includes an index for the preceding 10 years.

WEBSTER'S BIOGRAPHICAL DICTIONARY:

Brief biographical information on more than 40,000 famous men and women from every historical period, nation, race, and occupation; entries are alphabetically arranged.

## SAMPLE

## "REFERENCE RUNAROUND" QUESTIONS -- TO BE TYPED ON CARDS

1. Who invented the saxophone and when was it first patented?
2. Find an illustration of the musical instrument called the hurdy-gurdy.  
When was it invented?
3. What types of drums are frequently used in an orchestra?
4. Where can you find a short discussion of folk music in the U.S.A.?
5. Find a description of how the lute is played.
6. When was the film "Planet of the Apes" released? Who directed it?
7. Find a picture of Boris Karloff in costume as the monster "Frankenstein."
8. In which album by Sly and the Family Stone did the number "I Want to Take you Higher" appear?
9. Who sang lead vocal with Big Brother and the Holding Company?
10. Who played drums and bass with Jimi Hendrix?
11. In Norway, what percentage of the population is Lutheran?
12. What is the capital city of the country of Muscat and Oman?
13. In Poland, what percentage of the population is Roman Catholic?
14. Where can I find an explanation of how a calculating machine works?
15. Where can I find an explanation of how a speedometer works?
16. Where can you find an article on exorcism?
17. What were the names of the three men who were called the "Werewolves of Poligny"?
18. Who is the only sausage casing dealer in Philadelphia?
19. How many stores sell life preservers in Philadelphia?
20. What are the phone numbers for the police and fire departments in Philadelphia?
21. When was the first football game shown on TV?
22. When was the first Easter Egg Roll held?



23. What's a schnauzer?
24. Is fumarole a kind of Italian pasta?
25. What was the Yazoo Fraud?
26. What is a troglodyte?
27. What's another name for lumpy jaw?
28. What's a punkie?
29. Which baseball team does Joe Pepitone play for?
30. In what town does Phil Esposito live?
31. In what year was Diana Ross born?
32. Which country was Johann Bach's home?
33. When is the Strawberry Mansion open to visitors?
34. Who was the first Pennsylvania governor?
35. Who invented basketball?

## SAMPLE

EXPLORATION AT THE HOSPITAL OF THE MEDICAL COLLEGE OF PENNSYLVANIA(MEDICAL SERVICES CLUSTER)

Comprehensive Orientation: Students meet with the Director of Volunteer Services for an orientation to the organization and to the rules of site participation. Orientation activities are listed below.

Oral Presentation: Students receive handouts explaining the rules and regulations covering hospital volunteers. They also receive official badges and uniforms.

Film Presentation -- "The Healer": Students view a graphic illustration of hospital services as seen from the point of view of an emergency patient. The movement of the patient through the admissions and treatment services demonstrates the organization of the hospital as well as the medical careers available at the site.

Slide Presentation: To supplement the students' knowledge of representative hospital careers, the Director of Volunteer Services presents a slide show to illustrate some of the careers which a student might explore.

Discussion: Students participate in a guided discussion of their career interests in terms of the audio-visual presentation. The site instructor then hands out the rotation schedule which provides an agenda for each student.

Tour of Program Service Areas: As a group the students are taken on a comprehensive tour of the four rotation services and several other departments which might be selected for their final rotation.

Rotation Begins: Students begin to follow their individual agendas on the afternoon of the first program day. The standard rotation areas are listed below:

- (1) Inhalation Therapy
- (2) Physiotherapy
- (3) Operating Room
- (4) Dietary

On the final day of rotation students may select one of the following service areas:

- |                    |                      |
|--------------------|----------------------|
| (1) Morgue         | (4) X-ray Services   |
| (2) Emergency Room | (5) Pediatrics       |
| (3) Nursing        | (6) Hospital Library |

NOTE: Although the learning activities vary from one rotation to another, the sequence of events planned by the Dietary Department is typical.

- (1) Student accompanies a dietician on patient interview rounds. As the dietician questions each patient, the student observes the process of assessment and menu establishment.
- (2) Students assist food service personnel in the preparation of simple foods.
- (3) Students assist paraprofessional personnel as they handle simple equipment and maintain standard records.

## SAMPLE

MEDICAL SERVICES CLUSTER - WORKSHEET #1MEDICAL COLLEGE OF PA.

1. List at least four different medical careers that were discussed in the film.
2. What do the people in each job that you listed actually do?
3. What is nuclear medicine?
4. What does an "audiologist" do?
5. Describe what a speech therapist does.
6. What is an "EKG"?
7. What kind of work could an "artist" do in a hospital?
8. Why is the Medical Librarian's job important?
9. Describe the types of tasks a medical assistant is expected to do.
10. Why are Medical Social Workers needed?

Please write your answers on a separate sheet of paper. Be sure to include your NAME and BOOK NUMBER.

## SAMPLE

MEDICAL SERVICES CLUSTER - WORKSHEET #2MEDICAL COLLEGE OF PA.

1. What is meant by paramedical?
2. List three advantages in selecting a paramedical career rather than going to medical school.
3. What is an "EEG" machine? (Include its purpose and the way it is operated in your answer.)
4. Where can you be trained to operate an "EEG" machine?
5. Two types of nurses, other than Registered Nurse (R.N.), are LVN and LPN. What are the proper titles which these letters represent?
6. List at least four (4) of a surgical technician's tasks.
7. What is another name for a histology technician?
8. How is a "microtome" machine used?
9. List three places you may find information on paramedical careers.

Please write your answers on a separate sheet of paper. Be sure to include your NAME AND BOOK NUMBER.

## SAMPLE

MEDICAL SERVICES CLUSTER - WORKSHEETS #3, #4, #5MEDICAL COLLEGE OF PA.

1. In which of the following departments did you work this week?
  - a. Physiotherapy
  - b. Inhalation Therapy
  - c. Emergency Medicine
  - d. Dietary
  - e. Clinical Lab
  - f. Medical Records
  - g. Surgery
2. In paragraph form, describe that department briefly (include the purpose of the department, the kinds of jobs you observed, the general environment).
3. Select one job that you observed, and explain how that particular job is related to helping patients.
4. In the jobs that you observed, what types of machines were being used? List the machines, indicating who was operating each machine and the purpose of each machine.

Please write your answers on a separate sheet of paper. Be sure to include your NAME and BOOK NUMBER.

## SAMPLE

MEDICAL SERVICES CLUSTER - WORKSHEET #6MEDICAL COLLEGE OF PA.

Using interview techniques, select someone you have come in contact with and fill out the attached worksheet.\* You may want to use some of the following references to check or substantiate your information:

- a. Another hospital employee
- b. The Hospital Personnel Office (ask for Mrs. Burke)
- c. The Occupational Outlook Handbook (in my office during school hours)
- d. Any other resources available to you

---

\*When collecting this information, remember to be polite and courteous, explaining who you are, where you are from, and why you need this information.

Please write your answers on a separate sheet of paper. Be sure to include your NAME and BOOK NUMBER.

## SAMPLE

MEDICAL SERVICES CLUSTER - WORKSHEET #6MEDICAL COLLEGE OF PA.

Using interview techniques, select someone who works in the hospital you have come in contact with and fill out the attached worksheet\*. You may want to use some of the following references to check or substantiate your information:

- a. Another hospital employee
- b. The Hospital Personnel Office (ask for Mrs. Burke)
- c. The Occupational Outlook Handbook (in my office during school hours)
- d. Any other resources available to you

\*When collecting this information, remember to be polite and courteous, explaining who you are, where you are from, and why you need this information.

Please write your answers on a separate sheet of paper. Be sure to

include your NAME and BOOK NUMBER..



SAMPLE

MEDICAL SERVICES CLUSTER  
ATTACHMENT TO WORKSHEET #6

MEDICAL COLLEGE OF PA.

STUDENT'S NAME:

\_\_\_\_\_

EMPLOYEE'S NAME:

\_\_\_\_\_

DEPARTMENT:

\_\_\_\_\_

JOB TITLE/POSITION

\_\_\_\_\_

EDUCATION (NUMBER OF YEARS REQUIRED):

High School \_\_\_\_\_

College \_\_\_\_\_

Other \_\_\_\_\_

NATURE OF WORK (includes job functions, physical requirements of the job, hours, etc.):

\_\_\_\_\_  
\_\_\_\_\_

PAY SCALE:

Minimum (starting salary) \_\_\_\_\_

Maximum \_\_\_\_\_

BENEFITS (Insurance, hospitalization, etc.):

\_\_\_\_\_  
\_\_\_\_\_

SUMMARY: Give your personal reactions to the information above, i.e., is the work difficult, strenuous; is the pay adequate; are the hours demanding?

\_\_\_\_\_  
\_\_\_\_\_

MEDICAL COLLEGE OF PENNSYLVANIA

2ND QUARTER - TUESDAYS 8:00 A.M. to 1:00 P.M.

ROTATION AGENDA FOR ACADEMY OF CAREER EDUCATION

1975 - 1976

STUDENT	Dec. 9	Dec. 16	Dec. 23	Jan. 6	Jan. 13	Jan. 20
Cousar, R. Dunn, L. Graff, D.	ORIENTATION	INHALATION THERAPY	DIETARY	OPERATING ROOM	PHYSIO- THERAPY	ONE AREA TO BE CHOSEN & SIGNED FOR BY 1:00 P.M. JAN. 13
James, L. Landon, M. Maddox, L. McMillian, O.	"	PHYSIO- THERAPY	INHALATION THERAPY	DIETARY	OPERATING ROOM	"
Nagle, G. Payne, M. Pomfret, D.	"	OPERATING ROOM	PHYSIO- THERAPY	INHALATION THERAPY	DIETARY	"
Radzibaba, S. Reynolds, S. Richards, T.	"	DIETARY	OPERATING ROOM	PHYSIO- THERAPY	INHALATION THERAPY	"

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## SAMPLE

CAREER EXPLORATION AT THE SOUTHEASTERN PENNSYLVANIA  
TRANSPORTATION AUTHORITY (SEPTA)  
 (TRANSPORTATION CLUSTER)

DAY #1Reception and Introductions9:00 A.M.-  
noon

Lecture, Discussion and Slide Presentation: The employer instructor presents program objectives and provides a general orientation to the organization which involves an explanation of SEPTA's departmental organization, its historical development from private to public agency, growth trends, and future plans.

Practical Career Information: Recruiters from both professional and "hourly employment" divisions discuss career opportunities, entry level training requirements, and benefits. Students then fill out sample job applications and take part in simulated interviews.

Comprehensive Tour: Students tour the major departments from which they will eventually choose their "internships" for Days 2 to 4. Students are expected to take notes on what they hear and observe for use in selecting the departments they want to work in during the next three days.

1:00 P.M.-  
3:00 P.M.

Discussion: Students exchange impressions based on their experiences and fill out log sheets. The major topic of discussion is selection of a department for subsequent program activities. The employer instructor informally interviews individual students to assess their specific career interests. By the end of the discussion period, each student will have selected the departments where he or she will spend each of the remaining program days.

3:00 P.M.-  
4:00 P.M.

DAYS #2, #3 and #4

Students Report to Assigned Areas: Although the activities in the different departments will vary widely, the Customer Service Department provides a fairly typical example of the kinds of student experiences possible during the course of each "Internship."

- (a) Students use a special "Jack" phone to listen to agents handling in-coming calls requesting SEPTA travel information.
- (b) Students discuss transportation routes with supervising agents.
- (c) Students use SEPTA timetables and routing charts to answer actual customer calls.

Wind-up Discussion: The employer instructor guides students in sharing their Internship experiences. Special speakers are often featured, as are supplementary field trips and audio-visual presentations. The students must also complete a daily log and have their written responses to questions critiqued by the instructor. For the discussion period on the second day, students prepare reports in which they are each asked to identify a transportation problem of personal interest. The final versions of the reports, due on the fourth day, are expected to present solutions to the problems identified. Draft reports are reviewed on the third program day.

## SAMPLE

CHECKLIST OF SEPTA JOB CATEGORIES BY DEPARTMENTTRANSPORTATIONService Division:

Street Service Supervisor, Radio-Room Clerk/Dispatcher

Depot Division:

Clerk-Receiver, Dispatcher, Bus/Trolley Operator, Depot Superintendent

Schedules Division:

Traffic Checker, Schedule Maker, Analyst

Instruction:

Bus/Trolley/Highspeed Instructor

ROLLING STOCK & SHOPSBus Unit Shop-Wyoming:

Engine Repairman, Mechanic, Wireman, Air-Equipment Repairman, Millwright, Helper

Machine Shop

Machinist, Welder

Body Shop:

Sheetmetal worker, Rebuilder, Body Repairman

Paint & Upholstery Shop:

Bus Painter, Upholsterer

Sign Shop:

Painter, Letterer, Silk-Screen Machine Operator

Trolley Unit Shop-Courtland:

Electrical Repairman, Welder, Machinist, Air-Equipment Repairman, Blacksmith, Millwright

ROLLING STOCK & SHOPS (continued)Trolley-Body Shop:

Painter, Sheetmetal Worker, Rebuilder, Car-Track Overhauler, Wireman

FACILITIESEngineering:

Draftsman; Electrical, Structural, or Mechanical Engineer; Designer; Architect

Buildings:

Bricklayer, Iron Worker, Electrician, Locksmith, Plumber, Carpenter, Painter, Cement Finisher

Track:

Machinist, Mill Bender, Equipment Overhauler, Welder, Track Fitter, Automotive Crane Operator, Paver, Inspector, Barth Auger Operator, Automotive Compressor Operator, Switch Repairman, Switch Cleaner

Power:

Substation Operator, Lineman, Power Dispatcher

Underground-Highspeed Electrical and Signals:

Signal and Electrical Repairman, Cable Splicer, Machinist

PUBLIC RELATIONS & CUSTOMER SERVICE

Public Relations Assistant, Artist/Graphic Designer, Customer Service Supervisor, Telephone Information Agent, Printer

FINANCE/ACCOUNTING

Accountant, Keypunch Operator, Computer/Data Processing Machine Operator, Budget Analyst

PURCHASING

Buyer, Expediter, Contract Negotiator, Clerk Typist

CLAIMS/LEGAL

Adjuster/Investigator, Claims Supervisor, Property Damage Specialist, Lawyer, Process-Server

MEDICAL

Nurse, Doctor, Laboratory Technician

## SAMPLE

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Answer the following questions with complete sentences.

1. Which SEPTA department(s) or area(s) did you visit today and what did you do in each department/area?
2. What are the functions and responsibilities of the department(s) or area(s) you visited today?
3. In what ways are these departmental functions necessary for SEPTA to meet its overall goal of providing mass transit service to the public?
4. How would an individual prepare himself or herself for a position in the department(s) you visited today?
5. What knowledge or experience did you gain today that would be useful in terms of your future career plans?

## SAMPLE

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Answer the following questions with complete sentences:

1. Briefly, what was today's session about?
2. What are the main objectives of the SEPTA-ACE program?
3. What new knowledge about SEPTA did you gain today?
4. List the SEPTA departments or areas that stimulated your interest and which you want to visit during the coming weeks.



SAMPLE

STUDENT EVALUATION SHEET

Student: \_\_\_\_\_

Date: \_\_\_\_\_

Department: \_\_\_\_\_

Please evaluate the student assigned to your department, division, or area by checking each category in the appropriate column.

After signing this sheet and indicating your title, please forward it to James M. Byrd, Public Relations Department.

	<u>Poor</u>	<u>Fair</u>	<u>Good</u>	<u>Excellent</u>
Attitude				
Appearance				
Participation				
Performance				
Conduct				

Additional Comments:

Completed by: \_\_\_\_\_  
Name

\_\_\_\_\_  
Title