This federally-funded developmental comprehensive career education program for the elementary and secondary grades in a West Virginia county is intended to provide a model for career education in rural economically depressed areas. Developed by 34 teachers and principals, a guidance coordinator, and an administrator at a 1-week workshop, the program design includes: (1) career awareness activities for the elementary grades, (2) career orientation in Grades 7 and 8, (3) career exploration in Grades 9 and 10, (4) occupational guidance, counseling, and job placement, and (5) skill development activities for non-vocational students. A sequential approach for implementing this integrated exemplary project was utilized in seven pilot schools. In order to develop problem-solving abilities and allow educators to function as change agents, the workshop used a modified laboratory training approach that focused on the interaction process and task elements of program development. Small group discussions, resource speakers and consultants, team-building, role playing, unit development, and continuous feedback were techniques used to improve the human relations aspect of program development. Daily workshop activities are detailed, and resource materials are appended. (AG)
Education for Reality
In-Service Design for Teacher Orientation in Career Education

by
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On January 1, 1971, the school system of Lincoln County, West Virginia, received a grant from the United State Office of Education, designed to support the development of Comprehensive Career Education to meet the needs of students in grade levels 1-12. The program design calls for (1) the introduction of career awareness activities in levels 1-6, (2) career orientation activities in levels 7-8, (3) career exploration in levels 9-10, (4) intensified occupational guidance, counseling, and job placement activities for those students who desire to enter work at the termination of their education, and (5) intensified skill development activities for those students who have not previously been enrolled in a vocational program and who have chosen to terminate their formal education at the completion of their senior year. The project is expected to provide a model for career education in rural economically depressed areas.

The staff of the Lincoln County Project designed a sequential approach to project implementation. Phase 1, (levels 1-6) was implemented in seven pilot schools in the fall of 1971. Phase 2, (levels 7-8) was integrated into the program in January, 1972, along with levels 1-6 in all other county schools. Phases 3, 4, and 5, (levels 9-10 and 11-12) to be integrated into the program in the fall of 1972.

Thirty-four teachers and principals participated in a one week workshop prior to the initiation of the project in levels 1-6 of the seven pilot schools in the fall of 1971. All participants were volunteers.
This publication is based on the objectives and methodology of the workshop, which focused on both the process and task components of successful project implementation. Hopefully the data generated in this effort can aid others who are also embarking upon educational change ventures in their own school systems, ventures that seek to break down the barriers between the classroom and reality, and bring the "real world" inside the classroom walls.

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Many worthwhile innovative programs fail because of inadequate attention to the human relations or process phase of the venture. Although technical and informational components are often highly functional and relevant, process problems may intervene to minimize the potential effectiveness of the effort. In order to avoid this barrier to program implementation, a workshop with a dual emphasis designed to focus on both the process and task elements of program implementation and change (see Figure I) is suggested in this paper.

The workshop, which should run a minimum of five days, six hours daily, opens with the process focus, and is then designed to move into the task component, utilizing the process skills developed in the early phase of the training. (See Figure 2 for an outline of the agenda for the workshop). The specific areas on which the first day's sessions should focus are staff and group development, team building, and the creation of a consultative helping relationship between staff and participating teachers and principals. The framework for this session is a sequential group building process which takes all participants through four basic stages of team development: (1) getting acquainted, (2) trust building, (3) formation of helping relationships, and (4) group collaboration on a common task. Through the use of a modified laboratory training approach, participants are divided into groups, each with a leader trained in group dynamics. Experiential
FIGURE I
Planned Organizational Development and Change:
A Dual Emphasis

<table>
<thead>
<tr>
<th>Orientation</th>
<th>Problem</th>
<th>Goal</th>
<th>Change Agent Role</th>
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</table>
| Process     | Poor Utilization of Group Resources  
Poor Problem Solving Procedures  
Powerlessness-low influence  
Lack of intergroup linkages  
Dehumanized organization  
Non Involvement-Apathy  
Inept Leadership  
Communication Breakdowns | Increased Group and Organizational Competency  
In the process Dimensions necessary for Successful Task Implementation | Change Educator focuses on social systems, relationships, communication, co-operation and other people centered problem areas |
| Task        | Introduction of Career Awareness  
Program-Grades 1-6  
Introduction of Career Orientation and Exploration  
Grades 7-10  
Implementation of Vocational Courses-Grades 11-12  
Job Placement | Specific Task  
Achievement | Task or Informational Specialist who centers on Information, Subject Matter, Task. |

**Problem:** Usually educators think of group and organizational problems in the "task" category. In fact, in most groups and organizations, "process" problems also exist (e.g., undemocratic decision making), and may block any "task" action.

**Goal:** Process orientated goals seek development of problem solving abilities as well as solutions. This ability can be expressed in working on both process and task problems.

**Change Agent Role:** The change Educator is more "process" oriented, while the task specialist focuses on the "task". As a team they may combine the two models into one.
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<tbody>
<tr>
<td><strong>Morning</strong></td>
<td>Opening-Welcome and Introductory Remarks</td>
<td>Team Building and Organizational Development</td>
<td>Career Education Classroom Units Presentation of Program Model to Total Group</td>
<td>Problem Solving and Consulting Behavior</td>
<td>Effective Feedback</td>
</tr>
<tr>
<td><strong>Afternoon</strong></td>
<td>Unit Development Short Lecturette on Unit Elements</td>
<td>Unit Development in Small Groups, By Grade Level, Teachers Initiated work on Units for Classroom use</td>
<td>Unit Development Discussion of Model Units in Total Group</td>
<td>Role Playing Occupational Roles from Units Developed</td>
<td>Communication</td>
</tr>
<tr>
<td><strong>Morning</strong></td>
<td>School Staffs meet to Plan scheduling, subject matter, team teaching, obtaining resources, selection of units, and finalizing of consulting relationships between project staff and teachers</td>
<td>Role Playing Occupational Roles from Units Developed</td>
<td>School Staffs continue to plan, finalize consulting relationships, and meet with teachers</td>
<td>Unit Development in Grade Level Groups Continued</td>
<td>Group Collaboration and Planning</td>
</tr>
<tr>
<td><strong>Afternoon</strong></td>
<td>School Staffs meet to Plan scheduling, subject matter, team teaching, obtaining resources, selection of units, and finalizing of consulting relationships between project staff and teachers</td>
<td>Role Playing Occupational Roles from Units Developed</td>
<td>School Staffs continue to plan, finalize consulting relationships, and meet with teachers</td>
<td>Unit Development in Grade Level Groups Continued</td>
<td>Group Collaboration and Planning</td>
</tr>
<tr>
<td><strong>Morning</strong></td>
<td>Career Education In Action</td>
<td>School Staffs meet to Plan scheduling, subject matter, team teaching, obtaining resources, selection of units, and finalizing of consulting relationships between project staff and teachers</td>
<td>Role Playing Occupational Roles from Units Developed</td>
<td>School Staffs continue to plan, finalize consulting relationships, and meet with teachers</td>
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situations are created which allow participants to be involved in, and learn first-hand about effective communication, consulting, problem solving, planning, feedback, group decision making, and team work.

On the second day, a model of career development education is presented to the entire group with reaction and discussion following in the small groups that were built the first day. The model emphasizes a sequential approach with first graders learning about occupations in the immediate family, and each grade broadening its perspective until sixth graders would be studying the interdependence of occupations on a worldwide basis. Junior high orientation and exploration would lead to specific choices at the senior high level followed by post high school technical training, a job, or continued academic education. Also on the second day a speaker from a similar project already in operation shares experiences and insights gained from the efforts of his staff. This speaker is able to legitimize the new project to the local principals and teachers. Again, the cohesive, unified groups created during the first day are able to effectively share application of this presentation to implementation of career education.

On Wednesday, each of the four groups are sufficiently equipped to go through the process of developing a Career Awareness Unit that may be used in the classroom. This unit culminates in a role playing situation in which the groups simulate typical roles played by the occupational persons on which the units focuses. Each group should observe the others in their role playing efforts and then offer constructive feedback on positive and negative elements noted.
Thursday's session opens with a lecturette (short lecture) to the entire group on unit development, including objectives, methodology, and important unit elements. The suggested career awareness approach emphasizes the inclusion of five elements as being important in maximizing the effectiveness of each unit. These are (1) field trips, (2) use of a resource person from the occupation studied for a conference in the classroom with students, (3) multi-media occupational information activities, (4) classroom simulation of the occupation including role playing, and (5) manipulative activity. The remainder of Thursday is spent with teachers divided by grade levels developing units for use in the classroom during the school year. Units created by the staff are used as models. Project coordinators act as consultants on procedural, technical, and process concerns of the groups.

On Friday, work is completed on the units and the afternoon session is used by school faculties meeting as a staff to plan around scheduling, correlation of subject matter, team teaching concerns, and issues involved in securing resources and materials. Initial units are selected for implementation during the first semester. Plans between central staff and teachers in a systematic consulting-helping relationship are initiated.

By the end of the workshop the various school staffs, both teachers and administrators are well organized and ready to begin the first semester of Career Awareness activities. Data gained from verbal contact with teachers and principals indicate that the two-pronged (process and task) approach of the workshop
results in the development of a cohesive, committed team of teachers, principals, and central staff personnel unified around the Career Awareness concept with skills in the technical or informational aspect, as well as competence in such process areas as communications, cooperation, and problem solving. This combination can be the key to a successful project which facilitates central staff and teacher integration and accelerates the development and maintenance of teamwork and consensual behavior.

The following pages of this publication will examine in detail the workshop activities to be conducted each day.
III

THE FIRST DAY-PROCESS FOCUS

The first day of the workshop is divided to a group dynamics laboratory which focuses on team building by moving both project staff and teachers through a planned sequence of group building activities. The group proceeds from a heterogeneous collection of individuals to a cohesive and committed group or team unified around the workshop. Emphasis is on building the consulting, helping relationship between project staff and teachers, developing skills in group collaboration, and facilitating an effective communication system between all participants. The next step in the workshop involves a transition to actual work by teachers with the central staff as consultants in the development of objectives, curriculum, and activities utilizing the skills in group cooperation and teamwork gained in the first part of the workshop.

This approach to team building hypothesizes that any group of people who expect to function together effectively in a unified, supportive way go through a series of group building phases from getting acquainted, trust formation, developing a helping relationship, to group collaboration. By moving a group of individuals through such phases in a workshop setting, this process can be accelerated so that the team building can be accomplished in a few short days rather than weeks or months of unplanned, or more casual team or group formation. The following is information concerning each stage of team or group development and the workshop activities that enable the group to move through each of these stages.
STAGES OF GROUP OR TEAM DEVELOPMENT

1. **Getting Acquainted**
   Knowing each other on more than a superficial basis, understanding individual similarities and differences, and accepting these differences.

   **Activities:**
   - (A) Non-verbal communication and greeting
   - (B) Verbal greetings and communication
   - (C) Non-verbal influence exercise

2. **Trust Building**

   **Activities:**
   - (A) Negotiation Exercise - Workshop groups negotiate and choose their own leader from among staff members
   - (B) Self-knowledge Questionnaire (Appendix A)

3. **Helping Relationship**
   Helping each other with individual problems, effective consulting, helping, and problem solving behavior.

   **Activities:**
   - (A) Helping relationship and feedback exercise
   - (B) Problem solving and consulting exercise

4. **Group Collaboration on a Common Task**

   **Activities:**
   - (A) One way - Two way CEC Exercises (Appendix B)
   - (B) NASA Exercise in group decision making (Appendix C)

Each of the activities conducted during the group development stages will be discussed in detail, with an analysis of the activities and how they contribute to the creation of a unified team of teachers and central staff unified around the Career Education Concept.

1. **Getting Acquainted**
   (A) Non-Verbal communications and greetings

   During this initial phase of the workshop, activities are designed to enable participants to begin to get to know one another, to understand the importance of both verbal and non-verbal communications
in effective human understanding, and to influence behavior of those involved in reciprocal interaction. Three basic activities are used, each lasting about 5 minutes. After a brief lecturette by one of the workshop staff members and proposed workshop methodologies, the participants are involved in a non-verbal getting acquainted and communication exercise. Each person is asked to move about among the entire group exchanging non-verbal greetings and communication.

(B) Verbal greeting and communication

Following the non-verbal communications, each person is asked to pick another person, one he or she knows least but would like to get to know better. The participant is to take a few minutes to get better acquainted verbally, and to also discuss individual reactions to the non-verbal activity. Pairs of individuals are then asked to pick another pair and engage in further verbal getting acquainted.

(C) Non-verbal influence exercise

The next exercise is a non-verbal influence activity. Participants are now in groups of four. They are asked to put their fingertips together and to attempt to exert influence upon other group members to move to another foursome. The only form of influence that can be used is pushing on the fingertips of other individuals in attempting to steer them in the desired direction. The result of this exercise is the creation of groups of equal number. A few minutes are taken to analyze the reactions of group members to the effort. Another result of the activities up to this point is the creation of an
innovative climate among participants and a readiness for involvement and experimentation.

2. Trust Building

(A) Negotiation Exercise

The first exercise in this stage is a negotiation exercise. The first day of the workshop is staffed by group leaders trained in group dynamics. The task given to each of the groups is to select a representative and then discuss among themselves which of the potential group leaders they wanted for their group. Each of the representatives then meet in the center of the room with their particular groups behind them. The representatives then negotiated around the issue of which groups would be able to get the leader they want. The rules of the negotiation session are:

(1) Only the negotiators may talk while they were in the center negotiating.

(2) Anyone in the groups may call a caucus so that their group can consult with their representative.

(3) Notes may be passed forward from the groups to the negotiators.

(4) The exercise has a ten minute time limit.

After the ten minute interval, each group will have selected a leader. Negotiation, consultation, and several compromises are necessary before the selections are resolved. This exercise requires further development of trust on the part of group members in discussing the issue of their desired group leader and in picking a representative to negotiate for them.
(B) **Self-Knowledge Questionnaire**

The next exercise is a self-knowledge questionnaire which each group member fills out in his group and then shares with other group members. The questionnaire is taken from NTL Training News, published by the NTL Institute for Applied Behavioral Science. It was developed to accelerate openness and trust among group members. The questions are read-one at a time, participants who respond on paper. They can then discuss their responses with another individual. The responses can be shared in the total group. Group members make a choice as to how open they wish to be. Discussion lasts from 30 minutes to three quarters of an hour. The questions deal with individual feelings about being a part of a group, and relationships with others in the group in a variety of situations. Appendix A contains a copy of the self-knowledge questionnaire.

3. **Helping Relationship**

Each group leader discusses feedback and the helping relationship in each group utilizing materials developed by the NTL Institute.

General information concerning the helping relationship is as follows: (A) Terms such as counseling, teaching, guiding, training, and educating are used to identify the helping process. (B) The helping persons attempt to influence the individual who is being helped. (C) Behavior change or modification will be in a constructive direction such as the development of new skills, increased confidence, etc.

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(D) Verbal and non-verbal interaction characterizes the dynamic helping relationship. (E) The helping person and the receiver of help has needs, feelings, and values. (F) The helping person and the receiver of help are trying to satisfy needs. (G) The helping person and the receiver of help have biased perceptions of the entire situation. (H) The needs, feelings, and values and the perceptions of the situation are the individuals to have certain objectives in the interaction which evolves.

The helping relationship is often strained because of the following difficulties in receiving help. (1) It is difficult to identify and recognize one's problems and even more difficult to place them on display for someone else. It is difficult to know the degree of trust to place in others and how others will react. (2) Individuals have either struggled to make themselves independent or depend too heavily on others. Neither trait is healthy in the helping relationship. (3) To solve the present problem may mean bringing up aspects of one's personality which the individual would rather keep hidden. (4) Many individuals feel that the problem encountered is so unique that others could not possibly provide assistance in solving the problem.

The helping relationship is often strained because of the following difficulties in providing help. (A) Most people feel a great deal of self importance and picture themselves in the telling role. It is easier to give advice with little concern for the needs, fears, abilities, and perceptions of the receiver of help than to concern
oneself with the many details of the situation. (B) Because many people think highly of those who stand their ground, opposition to one's point of view may be met with increased pressure. (C) Many educators have accepted the stimulus-response approach to learning consequently over-praising others while not allowing the receiver of help to recognize his problem, limitation, etc.

Feedback is a must in the helping relationship. Characteristics of effective feedback are as follows: (A) It describes the helper's reactions in descriptive form which allows the receiver-of-help to accept or reject it. It is not provided in the evaluative form. (B) Specific information is provided as to how the helper interpreted the reactions of the receiver-of-help. (C) The needs and feeling of all persons involved must be considered. (D) Feedback is concerned with behavior which can be modified. When feedback is concerned with shortcoming, which the person cannot control, frustrations and anxieties are created. (E) Feedback is provided as soon as possible after the behavior to be changed has occurred. (F) Interaction to clarify the feedback is necessary. Feedback can be harmful if not properly communicated and understood by the receiver.

(A) Helping Relationship and Feedback Exercise

Following the discussion of the self-knowledge questionnaire by the group leader, each individual group meets with another, forming clusters of two groups, one in an inner circle, the other in an outer circle. The inner group discusses "here and now" feelings, reactions to what has happened thus far in the workshop, and to relationships...
with group members. Then the outer group provides feedback to the inner group on its process and on the behavioral style of group members. The two groups then changed places and the process is repeated.

(B) Problem Solving and Consulting

Groups are divided into trios with one person sharing a problem (personal or professional) with another person who is a helper and consultant and a third person who is an observer. The observer then offered feedback of positive and negative elements noted in the helping process. Roles are switched three times, giving each person an opportunity to share a problem, be a helper, and an observer. The following steps to effective problem solving are used by the trios.

(a) Identification of the problem. (Does the helper ask questions to clarify the problem?)

(b) Examination of possible alternative solutions. (Does the helper explore alternative solutions instead of imposing his perception of the solution?)

(c) Selection of one alternative as a solution.

(d) Plans for evaluation of the solution.

4. Group Collaboration on a Common Task

(A) One-Way Two-Way Communications

The initial activity in this stage (team development) is one-way and two-way communication exercises which contrast the differences between situations in which two-way communication exists and in which communication goes one way only. It is also designed to stimulate participants to think about their relations with one another and to
recognize the importance of encouraging questions and suggestions in any situation involving supervisory and staff interaction on a task (Appendix B).

B. NASA Exercise In Group Decision Making

This exercise is the culmination of the first day's activities. It enabled group members to experience decision making in a simulated problem situation as an individual effort and as a group, and to compare the effectiveness and quality of the two products. The exercise is based on the work of Jay Hail and Vincent O'Leary who, in their work "The Utilization of Group Resources in Decision Making" set forth the theoretical and practical basis for the NASA Exercise.

For the purpose of the exercise, only one method of utilization of group resources is employed: that of consensus. Most people have had practical experience with other methods in some form or another, but few have had the opportunity to explore the consequences of consensual decision-making under controlled, "protected" conditions in which they are not risking "all the marbles" should the decision obtained be inferior. For this reason, i.e., to afford a practice arena for the use of consensus under conditions where immediate feedback of results are possible, the exercise required that individual members proceed according to the set of "guide-lines" concerning the handling of disagreement, etc. These guide-lines are included with the exercise in Appendix C.

At the end of the first day of the workshop, the participants and central staff members become a team committed to working together to
implement Career Education. The remainder of the week is devoted to working on developing and initiating Career Education in the pilot schools using the process skills built in the first day of the workshop.

IV

The Second Day—Presentation of A Career Education Model And A Practical Program In Action

Career Education Model

During the morning session of the workshop, the Career Education Model is presented. The program is divided into four segments as shown in Figure 9. Also illustrated by the arrows is the concept of horizontal mobility which allows students to move freely among the educational and occupational opportunities available. Figure 10 illustrates the focus of the project in each level of the Career Education Project. All students are provided with career education experiences in grades one through twelve. The focus at grade one is very narrow including experiences with occupations held by members of one's immediate family. The number of occupations studied and the degree increases until the student reaching the ninth grade. At this point, the number of occupations the student is involved with decreases. This trend continues until the student's formal education is completed.
Continued Career Development Through Occupational and Educational Experiences

FIGURE 10*

Career Awareness (Grades 1-6)

Career Education for the first and second grades begins with the immediate environment and gradually broadens to encompass the larger community environment. The first grade child is introduced to the world of work by investigating and interpreting the working life of members of his immediate family. This is followed by studying workers with whom he comes in contact. The second grader is introduced to new and different kinds of workers in the community, those workers not in his family or at school.

Career education for grades 3 through 6 is designed to increase occupational horizons from the immediate environment to the larger community. Comparing and contrasting occupations in the immediate area to those found in other communities provide the child with an opportunity to become aware of the encompassing nature of work.

The activity centered approach continues to be the principal method of concept development for the active youngsters. Each concept is presented and re-enforced through meaningful activities suited to the physical and mental maturity of the child grades 3 through 6. In classes with high levels of variation such as handicapped and disadvantaged students, adjustments are necessary to facilitate internalizing functional occupational concepts.

The third grade continues the lower primary approach of total and small group activities under the leadership of the teacher. The fourth grader's efforts and interests are integrated into activity-planning
providing for individual differences. The curriculum in grades 5 through 6 will include instruction and experience that will enable the students to develop positive attitudes toward work, identify and choose goals for themselves, and study occupational areas in which they are interested.

Career Orientation (Grades 7-8)

The curricula in grades 7 and 8 are designed to give students a knowledge of the characteristics and functions, duties and rewards of specific clusters within a broad spectrum of occupational families. Youth at this age level have rather specific characteristics which suggest certain needs. For example, they have not had opportunities to explore their capabilities in various areas under a variety of situations; therefore, they need opportunities to self-appraise their emerging potentials, to analyze occupational information for decision making, to understand the importance of all types of work, and to learn the educational and occupational requirements of different occupations.

The curricular organization in grades 7 and 8 will be characterized by studying occupational clusters across content areas. The career orientation clusters include the fifteen clusters established by the U.S. Office of Education. An intra-correlated curriculum approach is utilized in grades 7 and 8. All subject teacher's select the occupations from the clusters which are clearly related to their subject areas. Career education becomes part of each subject area, not a separate entity.
Career Exploration (Grades 9 and 10)

The curricula in grades 9 and 10 are characterized as exploratory. This involves exposure to actual work situations and, hopefully, "Hands-On" experiences may be provided that are related to specific occupational clusters. The instructional material is organized into units for more extensive study. Units for grades 9 and 10 are selected from broad occupational areas.

Career Preparation (Grades 11 and 12)

Three methods of students involvement will make up the curricula in grades 11 and 12; (1) cooperative work experience, (2) specific vocational courses, and (3) pre-professional courses. The cooperative work experience provides work stations in business and industry with related studies in the high school setting. The specific vocational courses provide for study in specific content areas with the innovative opportunities for job "spin-off" at all levels within the occupational cluster. The pre-professional course will provide laboratory settings in which skills will be practiced. All courses are planned to provide for students with varying levels of learning abilities.

For potential dropouts, dropouts, and high school graduates who have not acquired saleable skills, provisions are made for intensive guidance, following by intensive skill development. This preparation, guidance, and skill development is provided in summer classes or other times during the year appropriate to student needs. A continued assessment is made of labor market trends in the area of occupational changes.
through the Department of Labor (West Virginia Employment Security Service). The guidance and skill development is correlated with job potential. Following this intensive guidance and skill development, a follow-up study is conducted on the job with counseling and job development training.

Following this presentation, teachers separate into small groups created on the first day of the workshop for discussion and reaction. Each group selects a representative to share the reactions and questions of each group with the total group.

**Career Education In Action**

A speaker from a Career Education Project already in operation may discuss his project. It should be described in terms of objectives, methods and implementation strategies, and illustrated with a series of slides demonstrating the program in action. Following this presentation, the teachers and principals again divide into small groups where they discussed the presentation, and then came back together to share reactions and ask questions.

V

**THE THIRD DAY-CAREER EDUCATION**

**CLASSROOM UNITS-UNIT DEVELOPMENT AND ROLE PLAYING**

**Career Education-Classroom Units**

A presentation by another consultant focuses on unit development. Units provide students with opportunities to learn about occupations
through a curriculum blending approach and through involvement in a number of elements common to each unit. These elements, going from the concrete to the more abstract are field experiences, simulated exercises or role playing, competence development or hands on experiences, Resource Persons or Role Models, and Multi-Media Occupational Information such as books, films and records. The curriculum blending approach emphasizes the traditional academic subject matter areas organized around and correlated with the Career Education Theme.

The Career Awareness Model emphasizes the student's entering the program at any given point among the academic alternatives and career education elements on the basis of the results of his contact with a diagnostic instrument which assesses his occupational knowledge, skill, and attitudes. Throughout his involvement he will have an opportunity to assess his acquisition of occupational knowledge, skills, and attitudes through the use of Achievement Instruments which will aid in identifying his abilities, aptitudes, needs, likes, dislikes, fears, interests, feelings, and values with an opportunity for modification or re-cycling of his involvement in the curriculum if appropriate. Flexibility, involvement, and experience are the key elements in the current curricular approach. Figure 11 (Career Awareness Model) depicts this approach in a visual fashion.

Following the presentation the teachers divide into groups in which they first discussed the consultant's remarks and then develop Model Units. Each group then role plays typical work situation found in the unit just developed. They also try out some of the tools and
Model developed by LeVene A. Olson based on proposed strategies and activities for the Career Awareness Program in Lincoln County, West Virginia, 1971.
skills used by various workers. Thus, they have an opportunity to better understand how students themselves might feel in being involved in an occupational unit on an experimental basis (See Appendix D).

VI

THE FOURTH DAY

DEVELOPMENT OF WORK: 3 UNITS

FOR CLASSROOM USE

Teachers now form new groupings, by grade level, and begin to work on units that can be used in their classrooms during the semester. Technical data and skill elements gained from formal presentations are used in the groups, and as they work together in the units, they are able to utilize process skills obtained in the workshops first phase. Project Coordinators and the Project Director work with the groups as facilitators and consultants in both technical and process dimensions of effective interaction.

VII

THE FIFTH DAY

COMPLETION OF UNITS AND PLANS FOR PROGRAM IMPLEMENTATION

On the final day of the workshop, units are completed and much of the day is spent with school staff members meeting as a total faculty group to plan around scheduling, procedure, and administrative concerns. Central project personnel collaborate with each school in developing agendas for a continued consultative relationship with teachers and
principals.

SUMMARY

Following the workshop, the participants begin Career Education in their classrooms. Many teachers are able to apply the dual focus of the workshop in their own situations, where, by dealing consciously with both task and process factors, they are able to maximize successful student involvement in the Career Education Process. Effective linkages with central staff, established in the workshop, will persist over time. Absenteeism may be reduced in the classrooms and discipline problems minimized. Students gain an awareness of the broad spectrum of occupational possibilities existing in our culture. They also gain new insights into the diversity of life styles implicit in the roles of the many workers who earn their livelihood in our pluralistic society. They can in the process, learn that to be a successful worker with effective, technical skills is inextricably tied to growth as a person by learning to utilize the qualities that make us more fully human.
APPENDIXES

A. Self-knowledge Questionnaire
B. One-way Two-way CEC Exercises
C. NASA Exercise In Group Decision Making
D. Curriculum Development
APPENDIX A

SELF-KNOWLEDGE QUESTIONNAIRE
SELF-KNOWLEDGE QUESTIONNAIRE

(a) For use in a Micro-Lab or Mass-Cluster

(b) This questionnaire also has been used at the first session of a regular T-group to accelerate openness. All the questions are read--one at a time--to the participants, who respond on paper. Then they pair to discuss their responses. They are to make a choice as to how revealing or open they wish to be. Discussion lasts about one half-hour to three-quarters of an hour.

*Taken from TRAINING NEWS, Vol. 11, No. 2., NTL-Institute for Applied Behavioral Science, Washington, D. C.
1. When I enter a new group I feel ____________________________.

2. When a group starts I ____________________________.

3. When people first meet me they ____________________________.

4. When I'm in a new group I feel most comfortable when ____________.

5. When people remain silent I feel ____________________________.

6. When someone does all the talking I ____________________________.

7. I feel most productive when a leader ____________________________.

8. I feel annoyed when the leader ____________________________.
APPENDIX B

ONE-WAY TWO-WAY CEC EXERCISES
The following are descriptions of one-way and two-way Career Education Communications (CEC) Exercises.

The objectives of the CEC Exercises are:

1. to produce a recognition of the need for two-way communications.
2. to stimulate group discussion subsequent to the CEC Exercises.
3. to provide an understanding of the subordinate's situation when free communications is not encouraged.
4. to provide information related to the Career Awareness and Orientation Models.

Information concerning the CEC Exercises is subdivided as follows:

I. One-Way CEC Exercise
   A. Background Information on Career Awareness Education
   B. Directions for the one-way CEC Exercise
   C. Career Awareness Model

II. Two-Way CEC Exercise
   A. Background Information on Career Exploration Education
   B. Directions for the two-way CEC Exercise
   C. Career Exploration Model

I. One-Way CEC Exercise
   A. Background Information on Career Awareness Education

   Students in grade levels K-6 receive occupational experiences through the existing subject areas of social studies, mathematics, language arts, science, and fine arts. The objective of career awareness education is to provide occupational and educational experiences which will develop the student's skills, attitudes, and knowledge and result in a greater awareness of the occupational options available to the student in the
world of work.

Through a process called curriculum blending, academic tie-in, correlation, or integration, occupational and educational experiences are introduced through a subject which is related to the occupation requirements (academic skills). The study of an occupation is introduced where interest can be stimulated.

The methods or techniques used to provide students with occupational knowledge and experiences are (1) Field Trips to business, industrial, and governmental institutions, (2) Simulation activities of cognitive, affective, and psychomotor nature including paper and pencil simulation, role playing, and practical hands-on simulation, (3) Psychomotor activities such as painting, drawing, printing, sewing, sawing, hammering, sanding, etc., (4) Guest Speakers representing the family, community, business, industry, and government, and (5) Multi-media activities such as books, films, slides, visuals, audio tapes, video tapes, organizational publications, etc.

The following are suggested strategies (teaching techniques) for introducing occupational clusters.

When the occupational cluster is of such a highly technological character that it is difficult to grasp the numerous occupations involved, interest may be stimulated through a field trip. For example in the area of computer science, curriculum blending through mathematics may spark an interest not only in computer science but also in the study of mathematics thus making mathematics more relevant to the student. Subsequently, other teaching techniques can be used to complete the study of computer science in mathematics or other subjects.
When the occupational cluster is of such a nature that the students possess knowledge of occupational roles (whether accurate or inaccurate), interest may be stimulated by role playing. The role playing may consist of acting-out occupational roles, completing a paper and pencil simulated exercise, or by being involved in a practical simulation experience (electrical wiring of a model home). The teacher and students can later compare the degree of accuracy in the first simulated exercise with knowledge gained through additional study. For example in the protective services, students will undoubtedly feel as though they understand the role of the watchman, police officer, detective, and FBI man. Curriculum blending through social studies may be used with simulated exercises as the point of entry into the study of the protective services. Subsequently other teaching techniques and other subjects may be used.

Students need to begin developing manipulative skills such as painting, drawing, printing, sewing, sawing, hammering, sanding, etc. at an early age. Because students are generally interested in manipulative activities, these activities are often an excellent entry point. An example of how this technique might be used as opposed to one of the others is as follows. In studying crafts of Appalachia, the teacher can interest the students in sewing (boys and girls) through curriculum blending in the discipline of fine arts. Additional occupational information can be provided through the other subjects using manipulative activities and other teaching techniques.
When the occupational cluster is of such a nature that a well known person is available for group presentations, this teaching technique may be used to stimulated interest. For example in the communications industry, curriculum blending through language arts may provide the point of entry if a reporter, news announcer, etc. is available. Other teaching techniques and subjects can then be utilized to further develop an understanding of the occupational cluster.

A whole host of occupational information is available to students through books, occupational briefs, business and industry displays, slides, films, visuals, audio tapes, video tapes, etc. The multi-media teaching technique may prove to be the most useful approach to the introduction of an occupational cluster in the subject areas. For example in the area of space technology, curriculum blending through the subject of science using films, tapes, etc. and existing laboratory equipment may create a lasting interest (vocational and avocational) in space technology and make science more relevant. The other teaching techniques could subsequently be used in science or in some, all, or none of the other subjects.

B. Directions for the One-Way CEC Exercise

1. Select one demonstrator from each 6-10 participants.

2. Provide these demonstrators with the background information. Allow time for a complete explanation, questions, answers, and discussion of the CEC Exercise.

3. Divide the participants into groups of 6-10 people. Provide one demonstrator for each group.
4. Provide a pencil and sheet of paper for each participant in all groups. Label the paper:
   Career Awareness Model
   One-Way CEC Exercise

5. The groups are told that the demonstrator will provide them with directions for drawing a series of circles. The participants are to reproduce these circles according to the directions given by the demonstrator.

6. The participants are not to ask any questions or talk to any other member of the group.

7. The demonstrator may not show the participants the drawings.

8. The demonstrator may not illustrate relationships with his hands or arms.

9. After the participants and demonstrators have received thorough instructions, all demonstrators are asked to proceed with instructions for the one-way CEC Exercise.

10. All groups should complete the one-way CEC Exercise as quickly as possible. All groups should finish prior to explaining the Career Awareness Model.

11. After all groups have finished the one-way CEC Exercise, the demonstrator (in a group discussion session) views the participants' paper. He should draw out reasons why the participants' models do not look like the one used by the demonstrator. The discussion should be in terms of how the participants feel about one-way communications.

12. Demonstrators may summarize with the following:
   A. One-Way communications is usually quicker.
   B. One-Way communications is usually less accurate.
   C. One-Way communications is usually disturbing.

III. Two-Way CEC Exercise

   A. Background Information on Career Exploration Education

   In the lower high school levels, the cluster concept approach may be utilized to provide entry level knowledge, skills, and attitudes in a large number of occupations within selected clusters.
One-Way CEC Exercise

Career Awareness Model
Criteria for the selection of an occupational cluster are as follows: (1) The cluster should include occupations related in terms of duties, materials, finished products, or services performed. (2) The cluster should possess a large breadth of occupations requiring various skills, attitudes, and knowledge.

The criteria for selecting occupations within the cluster are as follows: (1) The occupation should provide good future employment opportunities. (2) The occupation should provide for entry level employment after completion of one's formal education. (3) The occupation should allow for advancement through successful on-the-job training or additional education. (4) The occupation should be of such a nature that numerous skills, attitudes, and knowledge are necessary for successful performance in the occupation.

Entry level tasks for the occupations meeting the above criteria are identified. The tasks are analyzed to determine the common elements in the areas of skills, attitudes, and information. These areas may be further subdivided as follows:

1. Skills
   A. Decision-making
   B. Interpersonal
   C. Manipulative
   D. Mathematical
   E. Mechanical
   F. Mental
   G. Problem-solving
H. Reading
I. Research
J. Writing

2. Attitudes
   A. Career
   B. Economic
   C. Educational
   D. Job
   E. Occupational
   F. Other individuals
   G. Productivity
   H. Self
   I. Society
   J. Work

3. Information
   A. Academic
   B. Economic
   C. Educational
   D. Job Requirements
   E. Occupational
   F. Operational
   G. Self
   H. Social
   I. Standards
   J. Technical
The commonalities (elements common to all of the occupations) are taught in the total group situation. The introduction of the cluster of occupations should begin with the commonalities. Following the introduction, students are divided into occupational groups within the cluster. After the student has experienced numerous activities and developed some job entry skills, he moves to a second occupation. This rotation procedure is followed until the students have experienced activities in all of the occupations offered in a cluster.

Individualized instructional packages may be utilized for selected occupations within the cluster. The instructional units should include behavioral objective(s), diagnostic instrument(s), learning activities, instructional resources, monitoring instrument(s), and achievement instruments.

B. Directions For The Two-Way CEC Exercise

1. Select one demonstrator from each 6-10 participants.

2. Provide these demonstrators with the background information, allow time for a complete explanation, questions, answers and discussion of the CEC Exercise.

3. Divide the participants into groups of 6-10 people. Provide one demonstrator for each group.

4. Provide a pencil and sheet of paper for each participant in all groups. Label the paper:

    Career Exploration Model
    Two-Way CEC Exercise
5. The groups are told that the demonstrator will provide them with directions for drawing a series of circles. The participants are to reproduce these circles according to the directions given by the demonstrator.

6. The participants may ask as many questions as desired and the demonstrator can provide as many answers and as much detail as needed by the participants.

7. The demonstrator may not show the participants the drawings.

8. The demonstrator may illustrate relationships with his hands.

9. After the participants and demonstrators have received thorough instructions, all demonstrators are asked to proceed with instructions for the two-way CEC Exercise.

10. All groups should complete the two-way CEC Exercise as quickly as possible. All groups should finish prior to explaining the Career Exploration Model.

11. After all groups have finished the two-way CEC Exercise, the demonstrator (in a group discussion session) views the participants' papers. He should draw out reasons why the participants' models may look better than the ones drawn in the one-way CEC Exercise. The discussion should be in terms of how the participants feel about two-way communications as opposed to one-way communications.
Two-Way CEC Exercise

Career Exploration Model

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APPENDIX C

NASA EXERCISE IN GROUP DECISION MAKING
INSTRUCTIONS: You are in a space crew originally scheduled to rendezvous with a mother ship on the lighted surface of the moon. Due to mechanical difficulties, however, your ship was forced to land at a spot some 200 miles from the rendezvous point. During re-entry and landing, much of the equipment aboard was damaged and, since survival depends on reaching the mother ship, the most critical items available must be chosen for the 200 mile trip. Below are listed the 15 items left intact and undamaged after landing. Your task is to rank order them in terms of their importance in allowing your crew to reach the rendezvous point. Place the number 1 by the most important, and so on through number 15, the least important.

1. Box of matches
2. Food concentrate
3. 50 feet of nylon rope
4. Parachute silk
5. Portable heating unit
6. Two .45 calibre pistols
7. One case dehydrated Pet milk
8. Two 100 lb. tanks of oxygen
9. Stellar map (of moon's constellation)
10. Life raft
11. Magnetic Compass
12. 5 gallons of water
INSTRUCTIONS: This is an exercise in group decision making. Your group is to employ the method of Group Consensus in reaching its decision. This means that the prediction for each of the 15 survival items must be agreed upon by each group member before it becomes a part of the group decision. Consensus is difficult to reach. Therefore, not every ranking will meet with everyone's complete approval. Try, as a group, to make each ranking one with which all group members can at least partially agree. Here are some guides to use in reaching consensus:

1. Avoid arguing for your own individual judgments. Approach the task on the basis of logic.

2. Avoid changing your mind only in order to reach agreement and avoid conflict. Support only solutions with which you are able to agree somewhat, at least.

3. Avoid "conflict-reducing" techniques such as majority vote, averaging or trading in reaching decisions.

4. View differences of opinion as helpful rather than as a hindrance in decision-making.

On the "Group Summary Sheet" place the individual rankings made earlier by each group member. Take as much time as you need in reaching your group decision.
| Box of Matches                          |
| Food Concentrate                       |
| 50 ft. of nylon rope                   |
| Parachute silk                         |
| Portable heating unit                  |
| Two .45 calibre pistols                |
| One case dehydrated Pet Milk           |
| Two hundred-pound tanks of oxygen      |
| Stellar map (of the moon's constellation) |
| Life raft                              |
| Magnetic compass                       |
| 5 gallons of water                     |
| Signal flares                          |
| First aid kit containing injection needles |
| Solar-powered radio                    |

Group
INSTRUCTIONS: You are a member of a space crew originally scheduled to rendezvous with a mother ship on the lighted surface of the moon. Due to mechanical difficulties, however, your ship was forced to land at a spot some 200 miles from the rendezvous point. During re-entry and landing, much of the equipment aboard was damaged and, since survival depends on reaching the mother ship, the most critical items available must be chosen for the 200 mile trip. Below are listed the 15 items left intact and undamaged after landing. Your task is to rank order them in terms of their importance for your crew in allowing them to reach the rendezvous point. Place the number 1 by the most important item, the number 2 by the second most important, and so on through number 15, the least important.

Little or no use on the moon
Supply daily food required
Useful in tying injured together, help in climbing
Shelter against sun's rays
Useful only if party landed on dark side
Self-propulsion devices could be made from them
Food, mixed with water for drinking
Fills respiration requirement
One of principal means of finding directions
CO₂ bottles for self-propulsion across chasms, etc.

15 Box of matches
14 Food concentrate
13 Portable heating unit
12 One case dehydrated Pet milk
11 Two .45 calibre pistols
10 CO₂ bottles for self-propulsion across chasms, etc.
9 Life raft
8 Parachute silk
7 50 feet of nylon rope
6 Stellar map (of the moon's constellation)
5 Food, mixed with water for drinking
4 Food concentrate
3 One case dehydrated Pet milk
2 Two 100 lb. tanks of oxygen
1 Two 100 lb. tanks of oxygen
Probably no magnetized poles; thus, useless

Replenishes loss by sweating, etc. 2 5 gallons of water

Distress call when line of sight possible

Oral pills or injection medicine valuable

Distress signal transmitter, possible communication with mother ship

14 Magnetic compass

10 Signal flares

7 First aid kit containing injection needles

5 Solar-powered FM receiver-transmitter
APPENDIX D

Career Education

Curriculum Development
This course in Career Education at Marshall University involves an introduction to career education theory and its application to career awareness, orientation, and exploration. The concepts of intercorrclated curricula, intracorrelated curriculum, and interlinked curricula utilizing social studies, science, mathematics, fine arts, and language arets disciplines is introduced. Sources of commercially produced materials and methods of student-teacher produced materials are investigated.

An instructional resource unit is developed by each teacher which incorporates behavioral objective, descriptive information, teaching techniques, methods of correlating the curriculum or curricula or linking curricula resources.

The goals of the course are: To assist educators in stating behavioral objectives and in relating performance criteria to student evaluation; to develop increased awareness of the relationship between teaching strategies and subject correlation as they relate to preparing and teaching an instructional resource unit; and to develop increased skill in researching an occupational area and selecting strategies for implementation of career education as an integral part of the existing courses offered in the local school.

The following strategies or teaching techniques are studied in detail:
Career Awareness 1-6

1. Competence Development
2. Field Experiences
3. Interpersonal Interaction
4. Multi-Media Activities
5. Resource Role Models
6. Simulation

Career Orientation 7-8

1. Competence Development
2. Field Experiences
3. Guidance and Counseling
4. Interpersonal Interaction
5. Multi-Media Activities
6. Occupational Research
7. Resource Role Models
8. Simulation

Career Exploration 9-12

1. Competence Development
2. Field Experiences
3. Guidance and Counseling
4. Interest, Ability, and Aptitude Assessment
5. Interpersonal Interaction
6. Multi-Media Activities
7. Occupational Research
8. Resource Role Models
9. Simulation

The teachers involved in developing curricular materials will:

1. Understand the developmental aspects in career awareness, career orientation and career exploration.

2. Utilize teaching strategies and curriculum correlation developing an instruction resource unit in career education.

3. Write cognitive, affective, and psychomotor objectives for instructional resource units.
4. Understand curriculum development concepts and evaluation in career education.

5. Prepare descriptive information for selected occupations based on experiential activities with resource materials.

6. Develop a unit of instruction for the grade level she/he is teaching.
DESCRIPTIVE INFORMATION

To assist the teacher and students, include information concerning the occupations studied in this unit. The amount of information will depend on the grade level in which this unit is to be used. Suggested types of information which you may want to include are as follows:

1. Advancement Possibilities
2. Advantages
3. Disadvantages
4. Dress Requirements
5. Educational Requirements
6. Fringe Benefits
7. Future Outlook
8. Geographic Location
9. Legal Requirements
10. Occupational Advancement
11. Occupational Tools
12. On-The-Job-Training
13. Physical Requirements
14. Related Occupations
15. Skill Requirements
16. Subject Knowledge Requirements
17. Type of Work
# CAREER EDUCATION

## Title of Unit

<table>
<thead>
<tr>
<th>Grade Level</th>
<th>Occupational Area</th>
</tr>
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<tbody>
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## Behavioral Objectives

1. 

2. 

3. 

## Teacher Activity | Student Activity | Resources and Evaluation

Relate the disciplines of mathematics, science, social studies, fine arts, and language arts to career education using techniques such as the following:

1. Career Clubs (sponsor)
2. Field Trips
3. Guest Speakers
4. Group Projects
5. Interaction Groups
6. Individual Projects
7. Lectures
8. Multi-media Activities
9. Psychomotor Activities
10. Reading Assignment
11. Simulation
12. Writing Assignments

Utilize the activities such as the following to integrate career education into the existing subject areas:

1. Bulletin Boards
2. Buzz Sessions
3. Career Club Activities
4. Constructing Props
5. Constructing Models
6. Discussions
7. Displays
8. Dramatization
9. Drawings
10. Exhibits
11. Field Trips
12. Games (Participate)
13. Questioning
14. Hands-On-Experience
15. Interviewing
16. Listening
17. Murals
18. Oral Reports
19. Panel Discussions
20. Pantomime
21. Plays
22. Psychomotor Activities

Examples of resource materials and evaluation techniques which may be used are as follows:

1. Audio Tapes
2. Books
3. Briefs
4. D O.T.
5. Encyclopedias
6. Films
7. Filmstrips
8. Games
9. Globes
10. Industrial Publications
11. Magazines
12. Maps
13. Newspapers
14. Pamphlets
15. Records
16. Simulation Kits
17. Single Concept Films
18. Songs
19. Text
20. Video Tapes
21. Visuals
| 23. Readings   | Evaluation Techniques                  |
| 24. Research   | 1. Anecdotal                           |
| 25. Role Playing| Records                                |
| 26. Singing    | 2. Conferences                         |
| 27. Speeches   | 3. Discussion                          |
| 29. Simulation | 5. Interpretive                        |
|               | Exercises                              |
| 30. View Films | 6. Observation                         |
| 31. View Television |                                  |
| 32. Write Letters | 7. Rating Scales                      |
| 33. Write Plays | 8. Work Samples                        |
| 34. Write Reports |                                      |