FINAL REPORT

VOCATIONAL-TECHNICAL EDUCATION LEADERSHIP DEVELOPMENT SEMINAR

JULY 11-22, 1966
UNIVERSITY OF MARYLAND
FINAL REPORT
LEADERSHIP DEVELOPMENT
SEMINAR
VOCATIONAL-TECHNICAL EDUCATION

July 11 - July 22, 1966

Edited by
Kinsey Green
Program Assistant

University of Maryland
College Park, Maryland

Project No. 6-2/81
Under Contract OEG-2-6-062188-0732

with the
Division of Vocational and Technical Education
Office of Education
U.S. Department of Health, Education and Welfare
Washington, D.C.

Project Director: Clodus R. Smith
Assistant Project Director: Erna R. Chapman
FOREWORD

The legislation embodied in the Vocational Act of 1963 in effect initiated a revolution in vocational and technical education. The revolution of new directions brought unfaced problems, different challenges, and new concerns. Never in the history of vocational-technical education have we faced the multiplicity of problems and the need for immediate and long-range planning at the federal, state and local levels that we currently face.

Louis Cheakin has entitled a recent book Problem-Directed Men: Our Greatest Need in Business and Government. Essentially our need is the same: vocational educators who have the vision to define problems and establish priorities, with the will and knowledge to work toward the solution of these problems. Through an understanding of this need the Leadership Development Seminars were conceived. Leadership begins with the desire to achieve; to achieve, the leader must establish goals that are realistic. Skill in developing goals and in working successfully with groups can be developed through training and group activity. Vocational educators from the nation and outlying territories have come together to consider salient problems, to train in leadership skills, and to become acquainted with the ideas of outstanding resource persons in the field.

Many people have shared in the planning, execution, and evaluation of the Seminar; their contributions are gratefully acknowledged. The success of the Conference will be measured only as future programs progress under the guidance of more knowledgeable and confident leaders.

Clodus R. Smith

July, 1966
<table>
<thead>
<tr>
<th>SECTION</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>FOREWORD</td>
<td>111</td>
</tr>
<tr>
<td>Program Design</td>
<td>1</td>
</tr>
<tr>
<td>Directory</td>
<td>3</td>
</tr>
<tr>
<td>Staff</td>
<td>3</td>
</tr>
<tr>
<td>Conference Leaders</td>
<td>5</td>
</tr>
<tr>
<td>Resource Speakers</td>
<td>6</td>
</tr>
<tr>
<td>Seminar Agenda</td>
<td>13</td>
</tr>
<tr>
<td>Abstracts of Presentations</td>
<td>25</td>
</tr>
<tr>
<td>Roster of Participants</td>
<td>57</td>
</tr>
<tr>
<td>BIBLIOGRAPHY</td>
<td>61</td>
</tr>
<tr>
<td>APPENDIX A. Leadership Techniques</td>
<td>71</td>
</tr>
<tr>
<td>APPENDIX B. Task Force Assignments</td>
<td>123</td>
</tr>
<tr>
<td>APPENDIX C. Evaluation Instruments</td>
<td>137</td>
</tr>
<tr>
<td>APPENDIX D. Vocational-Techical Education</td>
<td></td>
</tr>
<tr>
<td>Statistical Data</td>
<td>147</td>
</tr>
</tbody>
</table>
PROGRAM DESIGN

The Vocational-Technical Education Leadership Development Seminar held at the University of Maryland, was under contract with the U. S. Office of Education. The Seminar was designed to develop further the knowledge and understanding of selected federal, state and local educators who have the responsibility for vocational-technical programs.

The objectives of the Seminar were to present information concerning vocational-educational programs and procedures and to provide opportunities for participants to observe and practice specific leadership skills. These purposes were achieved through a multi-dimensional approach of information presentation, outstanding resource speakers, leadership technique practice and participant involvement through task force and conference leading assignments. Program content included: history of vocational-technical education, implications of vocational-technical legislation, the world of work, projected state plans, counseling and other supportive services, pre-and in-service teacher education, equipment and facilities, research programs, curriculum development, coordinating activities with other agencies, evaluation of progress, supervision and the role of professional organizations.

Participants were selected on a quota basis, upon recommendation by the respective State Director of Vocational-Technical Education. Sixty-two delegates participated in the two-week conference.

The residential Center of Adult Education provided conference and assembly rooms, staff offices, housing for guests and dining facilities. Typing and duplication facilities were available for staff and participants. A resource center was maintained with a collection of appropriate books, documents, periodicals and reprints.

Evaluation of the seminar was achieved through pre-and post-questionnaires from the participants, through group discussion and personal interviews.
Clodus R. Smith  

Project Director

Director of the Summer School and Associate Professor of Agricultural and Extension Education, the University of Maryland; B.S., M.S., Oklahoma State University and Ed. D., Cornell University in vocational education. Experience includes six years as vocational teacher-educator at the University of Maryland, three years as Director of the University of Maryland Summer School, and eight years as teacher-director and teacher of Vocational Education in Agriculture in local high schools. Other experience includes project director of the Induction-Inservice Training Program for Personnel in the Division of Vocational-Technical Education, U. S. Office of Education, Consultant to the Office of Economic Opportunity, member of Job Corps Proposal Review Board, research in vocational and higher education. Writing includes contributions to several vocational journals and two books, Planning for College and Rural Recreation for Profit. Current leadership activities include President of the National Association of College and University Summer Sessions and Vice President of the American Association of Teacher Educators in Agriculture. Member of AVA, Phi Kappa Phi, Phi Delta Kappa and Maryland Vocational Association.

Erna R. Chapman  

Assistant Director

Acting Dean, College of Home Economics, University of Maryland; B.S., M.S., University of Maryland in Home Economics Education and Food and Nutrition. Advanced graduate work at Indiana University, D.C. Teachers College and University of Maryland. Experience includes 18 years vocational teaching in secondary schools and in adult education, 4 years as Assistant Principal of Roosevelt High School, and 5 years as Supervising Director and State Supervisor of Home Economics Education, D.C. Public Schools. Participated in national workshops in home economics education and in leadership training sponsored by the Office of Education, Department of Health, Education and Welfare. Member of Phi Kappa Phi, Omicron Nu, Delta Kappa Gamma, Phi Delta Gamma, AHEA, NEA, AVA, and Soroptomists International. Recipient of National 4-H Honor Award, 1965; president of University of Maryland Alumni Association, 1964-65.
Ernest C. Mauc
Conference Coordinator

Conference Coordinator, Division of Conferences and
Institutes, University of Maryland; B.A. and M.A., University
of Maryland, International Affairs, and Public Administration.
Teaching Experience: Training Officer, The Ordnance School,
Aberdeen Proving Ground and Instructor, Machine Shop and
Welding. Military Service: Enlisted in the Military Service
at West Point, New York. Served for 24 years as warrant
officer and commissioned officer, active army. Retired, as
major, 1962. Supervisory and Administrative Experience:
Training Officer; Maintenance and Supply Officer; Battalion
Maintenance Officer; Advisor, Korean First Army; Chief,
Overseas Supply Requirements; Commanding Officer, Ordnance
Training Company; and Chief, Field Service, Liaison Branch.
Memberships held in Pi Sigma Alpha, American Society for
Public Administration, Reserve Officers Association and Army
Ordnance Association.

Kinsey Green
Program Assistant

Faculty Development Program, Colleges of Education and
Home Economics, University of Maryland. B.S., Mary Washington
College of the University of Virginia, Home Economics Edu-
cation. M.S., University of Maryland, Home Economics.
Experience includes vocational home economics teacher, Virginia;
Instructor in Family Life and Management Department and Advisor,
Home Management House, University of Maryland; and Assistant
Project Director for Peace Corps Training Project. Member of
Mortar Board, Omicron Nu, Phi Kappa Phi, AHEA.

Rita M. Roache
Secretary

Graduate of Eastern High School, Washington, D.C.
Attended American Institute of Banking, Washington, D.C.
Worked as a Secretary with the Washington Loan and Trust Co.,
and the Department of Agriculture.

Barbara Hill
Secretary

B.A., Mary Washington College of the University of
Virginia. Management-trainee, Woodward and Lothrop Depart-
ment Store; teacher, English and U. S. History, secondary
schools, Maryland. Member of NEA and NOTE.
Conference Leaders

Browne, John W.
Assistant State Supervisor, Trade and Industrial Education, State Department of Education, Georgia.

A.A., Wood Junior College; B.S. and Ed.M., Mississippi State University; additional study at LeTourneau Technical Institute and Rochester Institute of Technology. Teaching and supervisory experience includes the following: teacher and local supervisor of Trade and Industrial Education; Director of Youth Affairs, Mississippi Agricultural and Industrial Board; Head State Supervisor, Trade and Industrial Education, Mississippi; U.S. Office of Education, Program Specialist and Chief of Trade and Industrial Education. Industrial experience includes the following: apprentice, journeyman electrician, foreman, supervisor, and plant protection officer.

Cote, Theodora J.
Director, Professional Services Division of Vocational Education, New Jersey Department of Education.

B.S.E. and Ed.M., Massachusetts State College; Ph. D., University of Connecticut. Employment experience includes the following: printing instructor, guidance counselor, Director of Student Personnel, Director of Extension Education, and Teacher Trainer, Connecticut; Specialist, Trade and Industrial Education and Vocational Guidance, U.S. Office of Education. Member of AVA, APGA, NVGA, APA, Phi Delta Kappa, and Iota Lambda Sigma.

Eberle, Fred W.
Assistant State Superintendent of Schools, State Director of Vocational Education, West Virginia

A.B., Glenville State College; B.S., West Virginia Institute of Technology; graduate study at West Virginia University and the University of Pittsburgh. Experience: teacher, West Virginia public schools and West Virginia Institute of Technology; State Teacher Trainer for Trade and Industrial Education; State Supervisor of Trade and Industrial Education; Assistant Director of the Division of Vocational Education, and State Director of Vocational Education. Member of AVA, NEA, Adult Education Association of the United States, National Council of Local Administrators of Vocational Education; Past President of the National Association of State Supervisors of Trade and Industrial Education.
Williams, William A.
Professor of Industrial Education,
The Pennsylvania State University


Resource Speakers

Arnold, Walter M.
Assistant Commissioner for Vocational and Technical Education,
U. S. Office of Education

B.S. and M.Ed., Pennsylvania State University; Ed. D., Oklahoma State University. Experience in supervision and administration: Superintendent of the Stevens Trade School, Lancaster; Director of Vocational, Adult and Industrial Arts Education, Allentown, Pennsylvania; State Supervisor of Trade and Industrial Education, Oklahoma; and State Director and Executive Officer, Vocational Education, State of Kansas. Experience in industry includes serving as an apprentice and journeyman machinist with the Bethlehem Steel Company and Armstrong Cork Company, and personnel work with the Mack Manufacturing Corporation. Member of AVA, NHA, AAAS, American Technical Education Education Society, American Society for Engineering Education, Phi Delta Kappa and Iota Lambda Sigma.

Bean, John E.
Specialist, State Research Planning,
U. S. Office of Education

B.S., Eastern Oregon College; M.Ed., University of Oregon; Ed. D., Stanford University. Experience: classroom teacher, Oregon and Utah; Administrative Assistant, California; Education Advisor for USIA in Iran; Assistant Professor of Education, Brigham Young University; and Director of Research, Utah State Department of Education.
Benjamin, Harold R. W.
Professor of Education,
Glassboro State College, New Jersey

A.B. and A.M., University of Oregon; Ph. D., Stanford
University; LL.D., Drake University; Lit. D., Pacific University;
Ph.D., Rhode Island College of Education. Experiences in the
field include: Chairman, Division of Social Foundations of Edu-
cation, Peabody; Dean of the College of Education, University
of Maryland; Director of the College of Education, University
of Colorado; Assistant Dean, College of Education, University
of Minnesota. Among publications are Sabertooth Curriculum,
The Cultivation of Idiosyncrasy, Higher Education in the Ameri-
can Republics and The Sage of Petaluma.

Bowler, Earl
Assistant Director*, Program Service Branch,
Division of Vocational and Technical Education,
U. S. Office of Education

Experience: teacher, coordinator, and local director in
public schools of Wisconsin; Assistant Director, Industrial
Education Department, University of Texas; Assistant and
Acting Director of Trade and Industrial Branch, Division of
Vocational and Technical Education, USOE; industrial experi-
ence with Milwaukee Railroad and Wisconsin paper mills.
Author of "Supervisory Personnel Development," and "Promoting
Programs of Supervisory Personnel Development." Member of
American Society of Training Directors, AVA, and Iota Lambda
Sigma.

Brandon, George L.
Director, Vocational Teacher Education
The Pennsylvania State University

B.S. and M.A., Miami University, Ohio; Ph.D., Ohio State
University. Teaching experience: teacher, coach, private
school investigator, and vice principal, Ohio; Consultant in
Public Service Training and Trade and Industry. District
Supervisor, Ohio State University; Vocational Education Depart-
ment Chairman, Michigan State University and Pennsylvania State
University. Member of AERA, AVA and Phi Delta Kappa.
Bullock, Gwendolyn A.
Program Analyst, Community Action Programs, Office of Economic Opportunity


Burkett, Lowell A.
Executive Director, American Vocational Association

B.S. and M.S., University of Illinois. Experience: elementary and high school teacher, Illinois; and lecturer, University of Illinois; Director of Vocational Education, Robinson, Illinois; Supervisor of Trade and Industrial Education, Illinois; Assistant Executive Secretary, American Vocational Association. Member of NASSP, NASA, AVA, Phi Delta Kappa, and Iota Lambda Sigma.

Duffs, Harold F.
Assistant Director, State Vocational Service Branch, Division of Vocational and Technical Education, U. S. Office of Education

B.S. and M.S., University of Nebraska. Experience: State Director of Agricultural Education, Nebraska State Department of Education; Assistant State Director of Vocational Education; Vocational Agriculture Instructor; membership in AVA, National Vocational Agriculture Teachers Association, National FFA Board of Directors, AVA; Past President of Office of Education Vocational Association.

Ehrle, Raymond
Lecturer and Director, Rehabilitation Counselor Education, University of Maryland

Elkins, Wilson H.
President of the University of Maryland

B.A. and M.A., University of Texas; B.Litt. and Ph. D.,
Oxford University. Experience includes: Instructor, University
of Texas; President of San Angelo Junior College; President of
Texas Western College. Member of Phi Beta Kappa, Omicron Delta
Kappa, Phi Alpha Theta, Tau Kappa Alpha, and Alpha Phi Omega.
Listed in Who's Who in America and Who's Who in American Edu-
cation.

Heinz, Carl A.
Chief, Division of Technical Development,
U. S. Employment Service,
U. S. Department of Labor

B.E.E., Johns Hopkins University. Author of "The New
D.O.T.--Barometer of Job Change," and "Using the New
Dictionary of Occupational Titles in Guidance and Placement."
Member of APGA and International Association of Personnel in

Legg, Otto
Research Specialist, Educational Resources and
Development Branch,
Division of Adult and Vocational Research,
U. S. Office of Education

B.S. and M.S., Oklahoma State University; Ed.D.,
Pennsylvania State University. Experience: vocational agri-
culture teacher and local director in Oklahoma, research
assistant in agricultural education at Pennsylvania State,
and Assistant Professor of Education, University of Tennessee.
Member of: AVA, AERA, Phi Delta Kappa and Gamma Sigma Delta.

McMillen, Sherrill D.
Director, Program Planning and Development Branch,
Division of Vocational and Technical Education,
U. S. Office of Education

B.S. and M.S., West Virginia University; graduate work
at University of Pittsburgh. Experience: State Director of
Vocational Education, West Virginia.
Maley, Donald  
Professor and Head of Industrial Education,  
University of Maryland  

B.S., Pennsylvania State Teachers College; M.A. and Ph.D., University of Maryland. Industrial experience: Fort Pitt Steel Casting Company and Glen L. Martin Aircraft Company. Teaching experience: junior and senior high school; Director, Vocational Training Program, United States Naval Hospital, Chelsea, Mass.; and consultant to workshops and institutes in Virginia, Maryland and Pennsylvania.

Mester, Edmund  
Executive Assistant to Governor of Maryland  

B.A. and M.A., University of Maryland; graduate studies, University of Maryland and Harvard University.

Michael, Bernard  
Program Evaluation Officer,  
Division of Vocational and Technical Education,  
U. S. Office of Education  


Mobley, M.D.  
Former Executive Secretary  
American Vocational Association  

B.S.A., University of Georgia; H.S., Cornell University; L.L.D., Piedmont College. Experience: teacher, teacher trainer, State Supervisor, Assistant State Director and State Director of Vocational Education, Georgia; vocational education consultant for Pakistan, India, Thailand, Philippines, Germany and Jamaica. President, National Association of State Directors of Vocational Education and AVA, and Editor-in-Chief, American Vocational Association Journal. Member of: National Press Club, AVA, AASA, Alpha Gamma Rho, Iota Lambda Sigma, Phi Delta Kappa, Epsilon Pi Tau, and National Advisory Committee on Vocational Education.
Morgan, Robert M.
Director, Learning Resources Division, Litton Industries, and Head, Curriculum Service Department, Parks Job Corps Center, California

M.S., Oklahoma State University; Ph.D., Ohio State University. Experience: President and co-founder of General Programmed Teaching Corporation; Professor of Psychology at Oklahoma State University, Ohio State University and University of New Mexico; consultant to various governmental agencies.

Oliver, Margaret
Program Leader, Division of Home Economics, Federal Extension Service, U. S. Department of Agriculture

B.S., Huntingdon College; M.Ed., Teachers College, Columbia University. Experience: teacher, secondary schools; Home Demonstration Agent; Home Demonstration Agent Leader, University of Maryland.

Powers, Helen K.
Chief, Health Occupations, Division of Vocational and Technical Education, U. S. Office of Education

B.A., R.N., and graduate study, Teachers College, Columbia University. Experience: hospital nursing, supervision, teaching and administration in nursing schools. President of D.C. Nurses' Examining Board; Director of Nursing at the George Washington University Hospital; Program Specialist for Practical Nurse Education; Chief of the Practical Nurse Education Section, U.S. Office of Education.

Pritchard, David H.
Vocational Guidance Specialist, Division of Vocational and Technical Education, U. S. Office of Education

B.S., New York State Teachers College; Ed.M., University of Rochester. Experience includes: Assistant Chief and Chief, Vocational Advisement and Guidance, and Counseling Psychologist, Veterans Administration; Chief, Counseling and Manpower Utilization Branch, Department of Labor; lecturer, University of Maryland and George Washington University. Member of: NVGA, NECA, AVA, APA, and American Rehabilitation Counselors Association.
Kusso, Michael
Assistant Director,
Program Planning and Development Branch,
Division of Vocational and Technical Education,
U. S. Office of Education

B.S. and M.A., Fitchburg Teachers College; M.A., University of Vermont. Experience: Machine trades research; day trade instructor, related training instructor, local director, area coordinator, teacher trainer and state supervisor, Vermont; participation in various conferences and institutes.

Smith, Gerard C.
Chief, Section of Clerical and Service Occupation,
Department of Labor

A.B., Economics. Experience in consumer economics and manpower.

Weinstein, Paul
Associate Professor of Economics and
Director of Military Training Study,
University of Maryland

B.A., College of William and Mary; M.A. and Ph.D., Northwestern University. Experience: Research Assistant, Northwestern University; Research Associate, Petroleum History Project, Northwestern University; Instructor, Oklahoma State University; Professor, Pittsburgh University; and Assistant Professor, Columbia University.
SEMINAR AGENDA

Center of Adult Education, University of Maryland

Monday, July 11, 1966

8:45 - 9:30 a.m.
Registration Center Lobby

9:30 - 10:15 Orientation Session Room B

Chairman: Clodus R. Smith, Project Director, Associate Professor of Agricultural and Extension Education, and Director of Summer School, University of Maryland

Introduction: Erna R. Chapman, Assistant Project Director, Acting Dean, College of Home Economics, University of Maryland

Greetings: Wilson R. Elkins, President University of Maryland

Sherrill McMillen, Director, Program Planning and Development Branch, Division of Vocational and Technical Education, Office of Education

Purpose and Plan of Conference: Clodus R. Smith

Introduction of Conference Staff: Clodus R. Smith

10:15 - 10:30 Coffee Break Exhibit Hall

13
10:30 - 12:00 Noon

SESSION 1
Chairman: Erna Chapman
Topic: DEMONSTRATION OF VISUAL AID USE
Resource Person: Donald Maley, Head
Department of Industrial Education
University of Maryland

1:30 - 3:00 p.m.

SESSION 2
Chairman: Fred Eberle
Topic: DEVELOPING AND USING ADMINISTRATIVE,
SUPERVISORY AND LEADERSHIP SKILLS
Resource Person: William A. Williams
Professor of Industrial Education
The Pennsylvania State University
University Park, Pennsylvania

Overview of Leadership Techniques
Panel Discussion Leading
Shadow Panel Buzz Groups
Conference Leading Role Playing
Case Study
Discussion of Purposes, Uses and
Limitations of Leadership Techniques

3:00 - 3:15
Break Exhibit Hall

3:15 - 4:45

SESSION 3
Chairman: Erna Chapman
Topic: ORGANIZATION OF TASK FORCE
Resource Person: Earl Bowler, Assistant Director of
Curriculum and Instructional Materials,
Program Services Branch, Office of
Education; assisted by Conference Leaders
Tuesday, July 12, 1966

9:00 - 10:30 a.m., Room B

SESSION 4

Chairman: Kinsey Green, Project Program Assistant, Faculty Development Program, Colleges of Education and Home Economics, University of Maryland

Topic: DEVELOPING AND USING ADMINISTRATIVE, SUPERVISORY AND LEADERSHIP SKILLS

Resource Person: William A. Williams

Demonstration: Conference Leadership

10:30 - 10:45

Coffee Break, Exhibit Hall

10:45 - 11:45 Assignment of Conferees to Groups

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<td>J. W. Browne</td>
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12:00 Noon

SESSION 5 - Luncheon

Chairman: Erna Chapman

Topics: OUR HERITAGE IN VOCATIONAL AND TECHNICAL EDUCATION

Resource Person: M. D. Mobley, Former Executive Secretary American Vocational Association

1:00 - 2:00 p.m.

SESSION 6

Chairman: Clodus R. Smith

Topics: TASK FORCE WORK SESSION

Wednesday, July 13, 1966

9:00 - 10:45 a.m.

SESSION 7

Chairman: Ted Cote

Title: Symposium: THE WORLD OF WORK

Labor Economics: Paul Weinstein
Department of Economics
University of Maryland

State Vocational-Technical Education Programs:
Fred Eberle,
State Director

Dictionary of Occupational Titles:
Carl Heinz, Chief, Division of Technical Development

Occupational Outlook:
Gerard Smith, Chief, Section of Clerical and Service Occupations,
Department of Labor
10:45 - 11:00 a.m.
Coffee Break
11:00 - 12:00
Open Discussion

1:30 - 2:45 p.m.

SESSION 8
Room B

Chairman: Fred Eberle

Topic: STATE PLANS AND PROJECTED PROGRAM OF ACTIVITIES

Harold Duis, Assistant Director,
State Vocational Services Branch,
Division of Vocational and Technical Education, Office of Education

2:45 - 3:00
Break

3:00 - 4:30
Phillips "66"

Thursday, July 14, 1966

9:00 - 10:15 a.m.

SESSION 9
Room B

Chairman: J. W. Browne

Topic: PROGRAMS OF PRE-AND IN-SERVICE TEACHER EDUCATION FOR VOCATIONAL-TECHNICAL EDUCATION PROGRAMS

Resource Person: Earl Bowler, Assistant Director of Curriculum and Instructional Materials,
Program Service Branch, Division of Vocational and Technical Education, Office of Education

10:15 - 10:30
Coffee Break
10:30 - 12:00 Noon
Listening Team Reports

12:00 Noon
SESSION 10 - Luncheon
Chairman: Clodus R. Smith
Topic: THE LEADER'S ROLE IN THE DEVELOPMENT OF MORALE
Resource Persons: Harold Benjamin, Professor of Education, Glassboro State College, New Jersey

1:00 - 4:30 p.m.
SESSION 11
Conference Practice Sessions

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7:30 - 8:30
SESSION 12
Chairman: Fred Eberle
Topic: TASK FORCE WORK SESSION

Friday, July 15, 1966
9:00 - 10:15 a.m.
SESSION 13
Chairman: Kinsey Green
Topic: FACILITIES AND EQUIPMENT FOR VOCATIONAL-TECHNICAL EDUCATION PROGRAMS
Resource Person: Michael Busco, Assistant Director, Facilities Planning and Development Section, Program Planning and Development Branch, Office of Education
10:15 - 10:30 a.m.
Coffee Break
10:30 - 11:45
Directed Discussion

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12:00 Noon

SESSION 14 - Luncheon  
Fort McHenry Room
Chairman: Clodus R. Smith
Topic: VOCATIONAL EDUCATION IN THE PARKS JOB CORPS CENTER
Resource Person: Robert Morgan, Director, Learning Resources Division, Litton Industries

1:30 - 4:30 p.m.
SESSION 15
Conference Practice Sessions

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Monday, July 18, 1966

9:00 - 10:15 a.m.
SESSION 16  Room B
Chairman: William A. Williams
Topic: PLANNING TOTAL PROGRAMS OF VOCATIONAL TECHNICAL EDUCATION
Occupational Programs
Socio-Economic Programs
Agriculture Related Programs
Home Economics Related Programs
Resource Persons: Sherrill McMillen, Director, Program Planning and Development Branch, Division of Vocational and Technical Education, Office of Education

10:15 - 10:30 a.m.
Coffee Break

10:30 - 11:45
Round Table Planning Session: Case Studies

1:30 - 2:45 p.m.
SESSION 16 Continued

2:45 - 3:00
Break

3:00 - 4:30
SESSION 17

Chairman: Erna Chapman

Topic: CURRICULUM DEVELOPMENT

Earl Bowler, Assistant Director of Curriculum and Instructional Materials, Program Services Branch, Office of Education

Tuesday, July 19, 1966

9:00 - 10:15 a.m.
SESSION 18

Chairman: Erna Chapman

Topic: COUNSELING AND OTHER SUPPORTIVE SERVICES

David R. Pritchard, Specialist, Vocational Guidance, Ancillary Services Section, Program Services Branch, Office of Education
10:15 - 10:30 a.m.
Coffee Break

10:30 - 11:45
Reactor Panel

1:00 - 3:15 p.m.

SESSION 19
Room B

Chairman: Ted Cote

Topic: RESEARCH AND PILOT PROGRAMS IN VOCATIONAL-TECHNICAL EDUCATION

Resource Persons:
Otto Legg, Assistant Director
Program Planning and Development Branch

John Bean, Research Specialist
Division of Vocational-Technical Education
Office of Education

3:15 - 3:30
Break

3:30 - 4:30

Brainstorming Session on Research Trends

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Wednesday, July 20, 1966
9:00 - 10:15 a.m.

SESSION 20
Room B

Chairman: Clodus R. Smith

Topic: Symposium: COOPERATING AND COORDINATING PROGRAM ACTIVITIES WITH OTHER AGENCIES
Resource Persons: Office of Economic Opportunity:
Gwendolyn Bullock, Program Analyst, Community Action Program, Office of Economic Opportunity

Extension Education:
Margaret Oliver, Program Leader, Division of Home Economics Federal Extension Service Department of Agriculture

Vocational Rehabilitation:
Raymond A. Erle, Lecturer College of Education University of Maryland

Health:
Helen Powers, Specialist in Health Occupations, Division of Vocational and Technical Education, Office of Education

State Government:
Edmund Mester, Administrative Assistant Governor of Maryland

10:15 - 10:30 a.m.
Coffee Break

10:30 - 11:45
SESSION 20 Continued Room B

12:00 Noon
SESSION 21 - Luncheon Fort McHenry Room
Chairman: Clodus R. Smith

Topic: STATE AND LOCAL SUPERVISION

Walter Arnold, Assistant Commissioner Vocational-Technical Education Office of Education

1:30 - 4:30 p.m.
SESSION 22
Conference Practice Sessions

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Thursday, July 21, 1966
9:00 - 10:15 a.m.

SESSION 23
Room B

Chairman: Fred Eberle

Topic: EVALUATING PROGRESS IN VOCATIONAL-TECHNICAL EDUCATION


Topic: EVALUATION AND ACCREDITATION OF VOCATIONAL AND TECHNICAL EDUCATION PROGRAMS

Resource Person: George Brandon, Director, Vocational Teacher Education, Pennsylvania State University

10:15 - 10:30
Coffee Break

10:30 - 11:45

Directed Discussion

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12:00 Noon

SESSION 24 - Luncheon

Fort McHenry Room

Chairman: J. W. Browne

Topic: THE ROLE OF PROFESSIONAL ORGANIZATIONS

Resource Person: Lowell Burkett, Executive Secretary American Vocational Association

1:30 - 4:30 p.m.

SESSION 25

Conference Practice Sessions

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Friday, July 22, 1966

8:30 - 9:45 a.m.

SESSION 26

Room B

Chairman: Erna Chapman

Topic: TASK FORCE REPORTS

9:45 - 10:00

Coffee Break

10:00 - 12:00

Continuation of Task Force Reports

Summary of Conference

Distribution of Certificates
ABSTRACTS OF PRESENTATIONS

Seminar Orientation

Clodus R. Smith
Director

This morning we shall endeavor to acquaint you with the nature of the program of the seminars, and with the kind of activities you may expect during the two week period of your stay with us. Those of us at the University who were privileged to share in the planning of this Leadership Development Seminar are enthusiastic and optimistic about its possible outcomes, and the lasting influence this series will have on the vocational and technical programs at the national and state levels.

Most of you work in state departments of education and have been identified as having responsibilities for comprehensive programs. It is people like yourselves who are called upon to provide leadership in developing policy and procedures at the state level and to assist in implementing and guiding the continuing development of vocational and technical education programs at the state and local levels. We're delighted to have the opportunity to work with you and share in this learning experience.

The program you are about to enter is not the typical seminar, if by seminar you expect a series of listening sessions. The program of planned activities is characterized by your participation and involvement.

Actually there are four separate and distinct dimensions of this series of Leadership Development Seminars (1) Information program: a series of informational sessions will be held revealing programs and practices in vocational education supported and implemented by the headquarters staff. These will be presented through a variety of methods and media appropriate in the demonstration of leadership techniques. (2) Resource persons: outstanding persons in vocational and technical education will bring presentations on topics of their specialties. (3) Conference leading techniques: emphasis will be placed on the development of ability to lead conferences. In addition to a demonstration session, there are four one-half day periods set aside for skill development in this area. (4) Task force assignments: each of you will be assigned to help prepare a comprehensive vocational and technical education program for a state. Although much of the Task Force effort
will occur during the evenings in informal, self-initiated sessions, we have provided meeting rooms, typewriters, duplicating equipment and visual aid materials for your use. The Task Force is considered a vital part of the seminars.

**Demonstration of Visual Aid Use**

*Donald Maley*

The need for instructional devices and techniques for their best use should be considered from three separate but interrelated aspects: 1) the nature of the school population, 2) the information, skills and values associated with the educational program, and 3) the environment in which the individual now lives or will live in the future. Communication at best is difficult; it has been estimated that only .01 percent of what a person knows can actually be transferred to another. The major barriers to knowledge, lack of ability to communicate, security clearance, and printability requirements, emphasize the inadequacies of the printed and spoken message.

Major factors affecting learning as an individual seeks to communicate with a receiver are sensory needs, maturity, perception, motivation, interest, background, ability, emotions, and attitudes. Knowing the factors which affect learning, however, is not sufficient; the educator must understand the learner, know the objectives of the program, and then select the appropriate procedures for reaching these objectives.

Edgar Dale has envisioned a "cone of experience" in which several media of communication are discussed. Listing the most concrete device at the base, he proceeds with the purposeful experience, contrived experience, dramatized experience, demonstration, field trip, exhibit, television, movie, and radio and photographic recordings.

Vocational education is defined as that part of education which equips people to enter and to advance in the world of work. The ultimate aim of education is to increase the learner's ability to learn without being taught. Visual aids have a primary role to play in fulfilling this aim.
An Overview of Group Techniques for Leadership Development

William A. Williams

There are no reluctant leaders. A real leader must really want the job. In vocational education, we want the leader who wants the job and is willing to learn the techniques which will develop within him the desirable qualities of leadership. A knowledge of the principles and practices of group techniques is a necessity for the successful leader. There are many of these techniques; some are well known and some are unfamiliar. During this two-week seminar you will participate as leaders and as group members in as many of these "devices" as the program committee found it possible to include. It is my task to provide you with an overview of group techniques for leadership development. Not all of these techniques will be practiced at this seminar.

1. Lecture-discussion (lecture-forum) consists of a speech by a lecturer, followed by a discussion period in which the members of the group can ask questions, add to the information presented, or state their opinions. The task of the chairman is ordinarily the simple one of introducing the speaker and conducting the discussion period. The lecture is simple to arrange and suitable for audiences of small to medium sizes.

2. Pyramid discussion (White House Conference) consists of a speech by a lecturer, followed by a reporting period. Discussion groups are composed of about 10 persons. A round table discussion follows with the contributions recorded by one member at each group.

3. Listening Teams: Used to focus attention of small groups on a specific question while listening to a presentation. Teams are organized by a designated leader, and then the speaker makes a presentation. a) Members of teams listen carefully relating what is said to the question assigned to their team. b) Notes are taken by team members. Following the presentation, teams discuss it and a recorder from each team reports to the total group.

4. Symposium-Discussion (symposium forum): Participants are a chairman and a panel of two to five speakers. The chairman gives a brief introduction to the whole program and to each statement by the speakers, and then provides a summary. The symposium is then followed by a discussion. The symposium is very formal and is essentially a public speaking program, very suitable for large audiences.
5. Panel-discussion (panel forum): Participants are a chairman and a panel of two to six persons with special knowledge of a topic. Before an audience which can hear and see them, panel members carry on a conversation among themselves. The panel establishes a pattern of discussion, the leader summarizes and then invites members of the audience to join in the conversation.

6. Shadow panel: Panel is preselected and is given special instruction regarding presentation by a lecturer. Panel members make notes during the lecturer's presentation. Panel asks questions of the audience following the presentation; the chairman summarizes.

7. Role playing: A simulated, unrehearsed situation involving group members as participants. A situation is acted out, followed by a discussion of how to handle problems. The technique is especially effective in solving human relations problems and in the modification of personality traits and behavioral patterns.

8. Case studies: Statements of actual experiences, observed situations, heresy, recorded materials or hypothetical situations. They create considerable interest on the part of those involved in training. The group leader is an important key to the success of this group technique. He prepares questions to be used in the discussion, introduces the topic, reads the case to the group, then stimulates and guides group discussion.

9. Buzz groups: A large group is divided into several discussion groups, six people to a group, approximately five minutes to buzz the topic. Each group is given a different question to discuss; each buzz group chairman reports to the entire group verbally or in writing.

10. Structured Conferences: A discussion in which members of a group and a leader take part, directed and controlled by the leader towards a predetermined goal, with most of the ideas contributed by the group.

11. Brainstorming: A modified form of the conference technique. A group, a leader, at least two "chart men", and a "chart hanger" are required. A question, or problem, is posed by the leader; answers or responses are presented by the group members without comment and are quickly placed on the chart boards. Answers or responses are presented by the group members and are recorded without comment. Chart sheets are posted on surrounding walls. Leader then works with the group to combine, eliminate, refine, and summarize material.
Organization of Task Force
Earl M. Bowler

Task Force Objectives

Task force activity provides the setting in which certain leadership qualities can be developed. Objectives of the task force for this conference are:

To provide a situation and setting in which the leadership potential of the group may be demonstrated.

To make it possible for individuals within each of two sub-groups to demonstrate capability in analyzing, planning, and organizing; and to present an oral report to the entire conference group.

To provide the opportunity for each group to prepare a brief, carefully developed written report to accompany the oral presentation.

To encourage individuals, committees, and sub-group members to utilize the techniques of leadership discussed and demonstrated throughout the conference.

Essentials of a Task Force

Carrying to completion an assignment which permits the achievement of goals will also permit individuals to relate personal experiences to new and challenging situations. A well planned task force activity contains the following essentials:

1. A main group which meets as a unit for briefing before the task is assigned.

2. Two or more sub-groups which have been given assignments of equal complexity.

3. Several committees formed within the sub-groups to handle specific phases of the assignment.

4. A briefing session of the main group for a general presentation.

5. An assignment for each group that will provoke thinking, involve research, and otherwise challenge the committees.
6. A situation which requires researching, reading, discussing, evaluating, thinking, planning, and working together to find a solution.

7. A resource person who assists the group in starting the project, filling in gaps in the assignment, clarifying major points, and helping the group to clearly understand the situation.

8. A rehearsal for those who are going to make the oral presentation.

**Developing and Using Administrative-Supervisory and Leadership Skills**

**William A. Williams**

**Demonstration Conference**

**DEFINITION OF A CONFERENCE:** A conference is a discussion in which members of a group and a leader take part, directed and controlled by the leader towards a predetermined goal, with most of the ideas contributed by the group.

**WHAT ARE THE ADVANTAGES OF THE CONFERENCE METHOD?** Stimulates individual thinking, provides a forum for all participants, improves the probability of corrective action being taken, stimulates the flow of new ideas, insures progress through recording individual contributions.

**WHAT CAN THE PARTICIPANTS DO TO MAKE THE CONFERENCE MORE INTERESTING AND PRODUCTIVE?** Take an active part in the discussion, seek clarification or definition of points, contribute appropriate responses that are well timed, cite cases, examples, situations that have a bearing on the subject under discussion, and follow the discussion with an open mind.

**WHAT ARE SOME OF THE ACTIVITIES OF THE CONFERENCE LEADER?** Establish the overall theme and objectives of the conference, plan the physical arrangements, structure the group for maximum discussion, plan the specific chart headings and enter selected points on the chart board, guide, control and summarize.

**AN ETHICAL CODE FOR THE CONFERENCE LEADER:** A conference leader must believe in the job and be willing to contribute and cooperate with others. He should disassociate any ability that he has as a technical expert from the job as a conference leader. He must not violate confidences nor pass judgements.
Appropriate credit should be given to group members. A conference leader should not capitalize on his conference-leading experience to advance himself personally with the organization he is serving.

Our Heritage in Vocational Education

M. D. Mobley

A nation in order to make satisfactory economic and social progress must find ways to dignify and glorify work. Making vocational and technical education an integral and important part of education is certainly one important step in this direction, a step taken on a nationwide basis fifty years ago.

In recent years, I have had opportunity to spend some time in several developing countries. From my studies of these countries, I am convinced that one of the primary reasons why these countries are under-developed and reeking with poverty is because of the hostile attitude their leaders hold toward work with the hands.

Vocational and technical education in this nation will continue to serve the needs of our people. I will bring to your attention some of the major events and happenings that have helped to promote the development of vocational and technical education in this nation. Around the turn of the century (1900), Congress began to tighten immigration laws, seriously limiting the manpower supply of our nation at a time when the United States was greatly expanding its industrial production. This influenced the beginning of the development of vocational education in the United States. Probably the real beginning of vocational education in the United States resulted from the Russian Exhibit at the Centennial Exposition of 1876 which was held in Philadelphia.

Not until after the passage of the Smith-Hughes Act in 1917 was any concerted effort made to develop a nationwide system of vocational education. The impending involvement of the United States in World War I greatly influenced the enactment of the Vocational Education Act of 1917.

The Smith-Hughes Act grew out of the report on the "Commission on National Aid to Vocational Education." Following this report, Senator Smith and Representative Hughes sponsored what later became known as the Smith-Hughes Act. One of the reasons why standards were written into the basic vocational education act was due to the dissipation of funds made available under the Land-Grant College Act of 1862.
During the almost 50 years since the passage of the Smith-Hughes Act, Congress has passed a number of bills authorizing additional funds for all phases of vocational education. None of these measures would have become law had it not been for the efforts of the American Vocational Association and its predecessor organizations.

Representative Hughes saw great economic developments in the making of our nation and realized that these great developments would not and could not take place unless a sound effective program of vocational and technical education was made available for the training of the masses:

We are among the world's great industrial peoples, striving mightily for our place in the commercial sun. We need that place to keep our workmen employed and their families happy, but we omit a necessary thing to win and hold the position for which we strive. We train the physician for his job, the lawyer for his profession, and we teach the veterinarian how to care for the horse. With exceptions, excellent indeed, but all too rare, we are letting the city boy and the mechanic's son go it alone. We are so busy with winning our own national, state and local affairs that a great problem like the wasting of our youth has been almost untouched ... Here is a weakness and a waste that may well alter the place of the United States in the commercial and industrial world ...

National efficiency is the sum total of efficiency of all individual citizens, and the national wealth is the sum of their wealth producing capacity. While, therefore, our national prosperity in the past has been based largely upon the exploitation of our natural resources, in the future it must be based more and more upon the development, through vocational education, of our national resource of human labor. In the markets of the world we compete, not as individuals, but as a unit against other nations as units. This makes the protection of our raw material and of our productive skill and human labor a national problem, and unquestionably introduces a national element into vocational education, making the right preparation of the farmer and the mechanic of vital concern to the nation as a whole ...

This expresses the rationale for Federal aid to vocational education.

At about this time when the Smith-Hughes Act became law,
the "Seven Cardinal Principles of Secondary Education" were
enunciated, playing an important part in gaining acceptance
for vocational education on the part of general school
officials and administrators.

In 1947 the late Senator Walter P. George, who for more
than a quarter of a century was our nation's outstanding ex-
ponent for vocational legislation said:

The skills and knowledges gained by our people
as a result of vocational schools and programs played
a most important part in the triumphant victory of
World War II. When America was forced to become the
arsenal of democracy, leaders in government and in-
dustry looked to the nation's vocational schools to
help train the vast army of skilled and semi-skilled
workers needed to produce the enormous quantities of
arms, ammunitions and goods necessary for a speedy
victory.

We have a great heritage in vocational education--a
heritage for which we should all be proud. The program has
meant much to our people and to our nation--and in the future
will mean much more than it has in the past.

The World of Work Symposium

A. Labor Economics

Although work has philosophical, psychological and socio-
logical aspects, the economist is interested primarily in work
as a use of time in competition with leisure and consumption.
The demand for labor is a derived demand related to need for
consumer goods and the means of production. For many years
researchers have studied the demand aspects of work; the ap-
propriate beginning for research, especially for projection, is
to study the changes. Primarily these are shifts in product
mix, technology and the production function.

Civilian occupational studies give personal accounting
to show that the current work structure is the inheritance of
past failures and successes. Primary research needs are
functional. How can training costs be reduced? What needs
exist in management in the manpower area? What type of pro-
duction unit will be necessary in the future? The job now is
not only to use the unemployed but to employ those already
working more effectively.
B. State Vocational-Technical Education Programs

Vocational educators have a concern for occupations which comprise a large part of the world of work. This concern has a direct relationship to the purpose of vocational education established through the several federal acts, that of preparation for work.

The latest affirmation of this concern is well stated in the 64th Yearbook of the National Society for the Study of Education, devoted to vocational education. Dr. Melvin Barlow indicates that "... all that it [vocational education] can do is to provide appropriate training for jobs that exist." He then extends this position by stating, "Worker obsolescence, displacement, mobility, and automation are new dimensions for concern by vocational educators."

This enlarged scope requires a familiarity with the trends of the labor market in order to anticipate the emerging occupations and disappearance of jobs. It requires an understanding of the forces arising from the changing demands of employment, underemployment, and unemployment.

Program development requires access to current labor market data about the 70 million jobs. The growing interest in occupational mix emphasizes the importance of analytical review of current and projected job opportunities. The selection of job clusters raises the question of future demand for the specific job considered.

One problem in this effort to prepare people for work deals with the influence that the job will exert upon the individual who desires the training. This problem, related to wages and prestige, has been encountered in the service occupation area.

In spite of change, work still remains an educative force that is reinforced in vocational education.

C. Dictionary of Occupational Titles

A third and completely revised edition of the Dictionary of Occupational Titles (DOT), published by the U. S. Employment Service in two volumes, became available in 1965. This edition represents the first complete revision since 1939.

Volume I consists of job definitions arranged alphabetically. These definitions are based on current observations and reanalysis of jobs in all industries. The edition contains
approximately 23,000 job definitions known by 36,000 job titles. Seventy-five thousand individual job studies were made; wherever possible, each job was analyzed in two different establishments in one state, and verified in two different establishments in another state, thus increasing data validity and the probability of finding significant job variables. Obsolete jobs have been deleted, overlap of definitions were minimized, and 6,000 jobs new to the Dictionary appear. For example, the new DOT provides expanded coverage of professional and technical occupations, as the number of workers in these jobs has doubled in recent years.

Volume I definitions not only include what is done, and how and why, but also directly or by implication, functions performed by the worker, critical physical demands, working conditions, significant interests, aptitudes, temperaments and training required by the job, so that an understanding of the level of complexity of the job can be gained. Volume II includes an Occupational Group Arrangement (OGA) of job titles by an assigned 6-digit code. Throughout this arrangement, jobs are grouped by some combination of purpose, material, product, subject matter, service, generic term, and/or industry. The code is arranged in order of level of complexity, thereby eliminating the stigma attached to such designations as "unskilled" and the distinction between "professional" and "semiprofessional." These code concepts can be adapted to meet the needs of occupational explorations for individual applicants or for filling employer job orders on a large scale. The Worker Traits Arrangement (WTA) provides another format of titles and codes in which each group of jobs is homogeneous in terms of worker traits regardless of work field, subject matter, or industry with which they are identified. The Industry Arrangement of Titles (IAT) continues in the same form as the second edition; the Glossary has been updated. A special supplement to the DOT has been developed for use by the Social Security Board.

D. Occupational Outlook

Gerard Smith

The technological revolution that our nation is experiencing has brought about many changes in the way we live and work. Job requirements in the economy are at an all-time high. It is apparent that this nation can no longer tolerate the loss of its most precious resources—human resources. Consequently, a new commitment has been made to the development and creative use of the nation's total manpower resources. As evidence of this commitment, educational expenditures were $38 billion in this country in 1964-65, more than twice the level ten years earlier. Such expenditures have been projected at $60.9 billion by 1974-75.
What about the future? One thing we can expect is change. Differences in the rates of employment growth among industries will be an important factor in the changes in the occupational structure of the economy in the decade ahead. By 1975, total agricultural employment is expected to decline by more than 800,000, and all other employment is expected to increase by more than 17 million—a net employment gain of more than 16 million—assuming a high level of economic activity in the projected year.

Employment requirements for wage and salary workers in the non-farm "goods producing" industries are expected to increase by about 2-3/4 million. Requirements in the "service producing" sector of the economy are expected to rise by about 33 per cent—more than twice as fast as in "goods" producing industries. Government and services employment will increase sharply as a percentage of total employment over the decade ahead. Contract construction and trade will also increase their share. On the other hand, the relative importance of manufacturing, transportation and public utilities, and finance will decline slightly, and the relative size of agriculture and mining will continue to decline sharply.

The occupational requirements of the economy will change substantially as a result of the differential growth rates of industries and the technological developments and other factors affecting the occupational requirements of each industry. White-collar jobs are expected to increase by one-third, and account for almost half of all manpower requirements in 1975. Among white-collar occupations, the most rapid increase in requirements will be for professional and technical workers, which may grow more than twice as rapidly (48 per cent) as the average for all workers. Requirements for clerical workers also are expected to increase rapidly, rising by nearly one-third. The demand for managerial and sales workers is expected to rise somewhat more slowly, or about one-fourth between 1965 and 1975. Requirements for blue-collar workers are expected to rise by more than one-eighth over the decade ahead. The most rapid increase in requirements will be for craftsmen; requirements for operatives will increase more slowly; requirements for farmers and farm workers are expected to decline by nearly one-fifth by 1975. A rapid increase is anticipated in the demand for service workers; they are expected to account for about 1 of every 7 workers in the economy in the mid-1970's. There will be millions of job opportunities in the decade for people who have not completed 4 years of college; included among those workers are technicians.

In summary, we can expect nearly 25 million job opportunities during the decade ahead for manual workers, service workers, technicians, and clerical workers. Of these job
opportunities, nearly 11 million will result from employment growth. Despite the emphasis on the need for a college education, there will be many jobs during the decade ahead for people who do not have a college education, if they have sufficient motivation, good guidance, and proper training.

State Plans and Projected Program Activities
Harold F. Duis

1. Vocational Education Acts

Under the Federal Vocational Acts, Federal funds are allocated to the States to assist in the administration and operation of vocational education programs. In providing such funds Congress has identified the educational objectives to be achieved and it is necessary that expenditures be identified with the purposes for which the funds were provided.

As is true in all Federal-State cooperative programs, the statutes provide for: (1) a State board for vocational education as the sole agency responsible for administering the program, and (2) a State plan setting forth the policies and procedures for allocating funds to the State vocational programs and the provisions, standards, and requirements pertaining to the administration of vocational education within the State. The State plan must be in conformity with the Acts' regulations, and the State's laws and regulations.

The Vocational Education Act of 1963 in Section 5 rather specifically gives the State plan provisions which formed the basis for the State Plan Guide: (1) State board or advisory council designation and composition. Regulation 104.3. (2) Allocation of Federal funds to various purposes and to local educational agencies. Regulation 104.6. (3) Minimum qualifications of personnel or staff organization. Regulations 104.4 and 104.11. (4) Cooperative arrangement with public employment offices. Regulation 104.7. (5) Fiscal control and fiscal accounting procedures. Regulations 104.32 - 104.37. (6) Terms and conditions for construction projects. Regulations 104.22 and 104.23. (7) Reports. Regulation 104.55.

2. Regulations

"Part 104 - Administration of Vocational Education: Federal Allotments to States, Rules and Regulations" interprets the Acts and provides the general content for the State plan as well as the regulations with regard to the expenditure of Federal funds. The items in the State Plan Guide are referenced to the Regulations.
3. Projected Program Activities

Each State with an approved State Plan must submit annually a statement describing its projected program of activities for maintaining, improving, and developing programs of vocational education. This statement in effect becomes the State board's annual program plan with the rationale for the allocation of funds. The approval of this document determines the State's eligibility for the use of its allotments under the various acts.

The development of the projected program activities justifies the best efforts of the entire State staff and the involvement of many others interested in vocational education. It gives consideration to the manpower needs and job opportunities and relating vocational programs to such needs. It should ultimately result in a total balanced program of vocational and technical education for the State—all persons, all communities, all occupations, and all institutions.

Programs of Pre- and In-Service Teacher Education for Vocational-Technical Education Programs

Earl M. Bowler

Teacher education is undoubtedly among the most important considerations we face in vocational education. In virtually every state and at every level lack of qualified personnel is said to be the number one problem.

The Panel of Consultants on Vocational Education stated "...the state boards for vocational education through the vocational divisions of the state department must evaluate the selection, training, supervision, and inservice growth of teachers in order to maintain a satisfactory standard of excellence" thereby reaffirming the fact that state boards for vocational education have a major responsibility for teacher education. This concept is reflected in the Vocational Education Act of 1963, resulting in most state boards exercising a leadership role in providing teacher education services. The most adequate and effective programs result when a written agreement is developed between representatives of the state board of vocational education and servicing institutions which clearly identifies: (1) services to be rendered, (2) personnel, (3) relationships of staff to state office, (4) plan of supervision, and (5) financial arrangements.

The Vocational Education Act of 1963 reflects changes and needs in the nation's occupational structure adding the following new dimensions which directly affect the teacher
education programs: (1) the addition of office occupations to vocational education, (2) provision for distributive education as a preparatory program, (3) provision for programs for gainful employment as a part of home economics, (4) emphasis on programs for disadvantaged youth, and (5) provision in act of support training in instructional context.

In order that the total resources of vocational teacher education may be brought to bear on the problems in the traditional service areas there is a need for everyone to clearly understand the commonalities and differences in the programs. In terms of commonalities, all service areas: (1) are concerned with training for gainful employment; (2) are engaged in programs at several levels and in several kinds of institutions; (3) are concerned with providing adequate ancillary services; (4) require extensive shop and laboratory facilities; and (5) must provide curricula based on the needs of an occupation or cluster of occupations based on an analysis. Every effort should be made to capitalize on commonalities among teacher education services and to identify activities that can be provided cooperatively or be provided by a single staff.

At the same time, in order to work effectively, it is necessary that the unique features of each program in the various services be recognized in order that provision may be made for their best use.

The Leader's Role in the Development of Morale
Harold R. W. Benjamin

Morale is the group equivalent of individual courage. The social psychology of morale consists of three key elements: an understanding of the objectives involved; pride in group achievement; and confidence in group leadership.

Democracy has proven to be the most efficient pattern of government because it takes cognizance of these elements. It enables all persons involved to know and understand the purposes of a given program; pride in group achievement then becomes personal. The element of confidence in group ability is the capstone of morale.

A good leader knows his people, multiplies his leadership, takes the more extensive view, and assumes the role of heroism as necessary.
Facilities and Equipment for Vocational-Technical Education Programs

Michael Russo

To design, create and envision the facilities that will adequately meet the needs of all our vocational-technical programs, both present and future, demands an extremely critical evaluation relative to industrial developments of the future. In view of the constantly changing demands being made upon our vocational-technical education facilities, it becomes quite obvious that a serious gap exists between the adequacy of many of our traditional buildings and the demand of new and emerging curricula to meet the technological challenges.

Changes in the depth, scope, and variety of curricula; new emerging teaching techniques; multiple administration and staffing within an educational facility; and the challenge to meet the needs of all students, require many changes in our physical facilities. How accurately we project and anticipate these developments is extremely important, for if we fail to understand and accept these emerging possibilities, we will find ourselves unprepared to cope with the demands placed upon us. This change is being recognized by educators as an evolutionary phase of the educational environment. In order to meet these educational goals and objectives, we are seeking greater flexibility and adaptability, higher quality; concurrently, we are striving to maintain low building and maintenance costs.

The programs, methods, and equipment of today could become obsolete in the near future. However, the buildings designed to house and facilitate the programs of the present and future will remain with us for many years.

The primary concerns in planning these flexible edifices are: aesthetic values for the educational complex, flexibility in site selection, adaptable walls, zone environmental control, audio-visual facilities for individual and group use, and accoustical control. New trends in school plans feature larger storage units for tools, materials and projects, often demountable and movable, independent study carrels, large centralized receiving units, modular unit equipment, and central libraries with truck service to shops, laboratories and classrooms.

There is need for extensive use of school facilities by all people in the community. Approximately one out of seven people in our nation has a permanent physical disability, and it is therefore gratifying to note that twenty-one states have passed legislation requiring that all new school facilities have incorporated in their basic design, the standards required for use by individuals with permanent physical disabilities.
Vocational Education in the Parks Job Corps Center

Robert Morgan

Industry's entry into the Job Corps venture was motivated primarily by the potential profit foreseen in the application of industrial knowledge of vocational training in a new setting. Many persons employed under Litton Industry's contract for the Parks Center were from educational rather than industrial backgrounds. The program is expensive, but the expense is justified if the techniques employed can be amplified for use in total school systems.

The average Corpsman is eager to learn. Reading skills are low and the IQ scores are widely distributed. The primary objective of the program is to assist boys who have had a difficult life for sixteen to twenty years "to be somebody".

The multi-media presentation "A Stake in the Future" was developed as an orientation device for the Parks Center. Perhaps the most salient challenge in the film presents the idea, "A great nation is made up of persons who would not think of giving less than their best."

Planning Total Programs of Vocational-Technical Education

Sherrill D. McMillen

As we look back over the recorded history of mankind, we find peaks of recorded progress and advancement of human knowledge. It is recognized and generally agreed that the two decades since the end of World War II encompass a period in the explosion of human knowledge and progress exceeding the previous recorded history of mankind.

Program planning and development is not new to our society; what is new is that the activities have become more complex; the magnitude of programs has expanded enormously; and the funds for all programs have greatly expanded, necessitating immediate and long-range planning at all levels of responsibility.

Peter Drucker has defined planning as follows:

Planning is the continuing process of making present entrepreneurial (risk-taking) decisions systematically and with the best knowledge of their futurity, organizing systematically the efforts
needed to carry out those decisions, and measuring the results of those decisions against the expectations through organized systematic feedback.

A more concise definition is one used by Secretary of Defense McNamara: "... planning is simply a systematic appraisal and formulation of your objectives and of the actions that you believe necessary to achieve these objectives."

Planning, used in the foregoing sense, is not merely forecasting or predicting the future. It is not solely the projection of current programs or their costs. Neither is planning a process that deals only with future effects of present decisions. Planning is largely a job of making things happen that would not otherwise occur. Planning is a basis for decision-making, a frame of mind, a new way of looking at problems.

Effective planning requires more than new staff or procedures; there are principles which are useful in the nature and structure of planning:

Planning must be related to the decision-making process.
Planning must have the support of top management.
Planning formulates goals for all group action.
The planning process must permeate the organization and help accomplish objectives.
Planning formulates program and procedural policy.
Planning requires proper timing and scheduling of key events.
Planning requires communication to all levels of an organization.

Recent federal legislation has placed new and added responsibilities with the states. Business, industry, parents, civic leaders, organizations and legislatures are calling for more sophisticated and manifold services by our schools. Yet even with those increased demands, we are told that our educational and political leaders are reluctant to recognize the economic, social and education revolution that is taking place. Our stewardship under federal legislation has increased from $45.9 million of federal funds in 1960 to $450 million of federal funds in 1966 under all acts. When state and local funds are added to the federal contribution, dollar values approach the $1 billion figure for vocational-technical education expenditures. (Note: Vocational-technical education statistical data may be found in Appendix D.)
Curriculum Materials Development: An Approach to Program Quality

Earl M. Bowler

In recent years there has been a greater awareness on the part of many people of the importance of vocational and technical education to our economy and of the many and varied problems involved in expanding and upgrading state and local vocational programs.

The broad language of the Vocational Education Act of 1963 challenges administrators to develop new staffing patterns, to establish curriculum materials development laboratories, and to provide new pre-service and in-service teacher education courses that will bring vocational training to the highest possible quality.

The Act provides for a program of evaluation. Greater cooperation between vocational education administrators and public employment services are envisioned in the Act and it is expected that evaluation will show that the states have detailed staff members to these and other activities. Progress in closing some of the gaps in program development, curriculum facilities improvement, training programs for the educationally and socially handicapped, and similar activities will be important to the future expansion of our movement. Reports from the states are expected to document their efforts to maintain, extend and improve existing programs and their plans to develop new programs, to provide part-time employment for needy youth; and to conduct adequate vocational courses for persons of all ages in all communities.

The Curriculum Materials Section of the Division of Vocational and Technical Education is striving to meet the urgent need for adequate curriculum materials. In Fiscal Year 1964 approximately $90,000 was expended for manpower training guides; in Fiscal Year 1965 nearly $390,000 was spent for curriculum materials. It is expected that more than $450,000 will be expended in Fiscal Year 1966 for developing needed curriculum material.

Technological changes are occurring at a tremendous pace. The basic purpose of our vocational education effort is sound, as President Kennedy declared, and the program of curriculum development is sufficiently broad to meet future needs. The need for up-to-date instructional material has never been greater. The curriculum materials development activity of the Office of Education is a joint State-Federal undertaking that should expand, and the climate for getting this real program of joint activity launched is becoming most favorable.
Counseling and Other Supportive Services

David H. Pritchard

In order to ascertain the relationship between guidance and vocational-technical education both sides of the equation must first be defined. In the minds of many, these definitions are not clear.

The emphasis on counseling is increasing because emphasis on freedom of choice for the individual is increasing. The purpose of the counseling process is to assist an individual in realistically perceiving his own potential; to provide motivation and opportunities for development of this potential; to assist the counselee in bringing knowledge and motivation to bear on decisions; and to help individuals in contributing to society while at the same time remaining free individuals. The unique contribution of guidance is emphasis on the individual.

Counseling services have been authorized under the several vocational education acts. The greatest current need is for vocational counselors. However, the primary commitment of every counselor should not be to higher education, to vocational-technical education, to the labor market, or to any other specific area--but rather to youth. Counseling is a generic function; preparation should be of a core nature, with differences in emphasis according to setting. There is no evidence of discrete functions for different types of counselors--only differences in emphasis.

Improvements in present counseling programs could be attained by better knowledge of the world of work, improved in-service programs, work experience other than counseling, better communication among counselors, and by attention to special problems such as the rural school, small schools, and special studies. The process of counseling needs to be studied. Millions of dollars have been spent in the development of tools, but little effort has been expended on methodology for the effective use of these tools.

Vocational guidance is an integral part of the total program of vocational education. It will be improved to the extent that vocational education leadership assumes responsibility for this.
Research and Pilot Programs in Vocational-Technical Education

Otto Legg and John Bean

As one of his last major acts in office, former Secretary of Health, Education and Welfare Arthur Flemming made public the results of studies designed to stimulate discussions of long range national objectives in education. In a statement on vocational education he said, "Programs of vocational education to provide more effectively and more adequately for the nation's manpower need in the years ahead are urgent."

Following this beginning, we know the activity of the President's Panel for Vocational Education, and the subsequent formulation of the 1963 Vocational Education Act. This act provided for research, training, experimental, developmental, or pilot programs in vocational and technical education to states, local education agencies and qualified non-profit organizations. Simply defined, research in vocational and technical education is seeking the answer to crucial problems, directed toward the development of a science of behavior in vocational and technical situations with its own body of concepts, theories and principles. The recommendation was made that a large part of the research activity should be developmental, utilizing several appropriate methods, especially the experimental design. A maturity of judgement by the directors of research is essential to maintain the proper focus and realize the greatest benefits from research.

Three general aims are suggested: (1) the expansion of basic knowledge and understanding of vocational and technical education, (2) the translation of this knowledge into new or revised educational programs which can be tested and implemented throughout the country and, (3) the dissemination of information about new knowledge and new programs to practitioners and others concerned with vocational and technical education, including the public. The problem of acceptance of research is of paramount importance with the administrator appearing to be the change agent in most school systems.

The 1966-67 priority areas for research emphasis are: program evaluation, curriculum experimentation, personal and social significance of work, personnel recruitment and development, program organization and administration, adult and continuing education, and occupational information and career choice.

State vocational education research coordinating units have been funded in 44 states. Their purpose is to stimulate, encourage, and coordinate research activities among state
departments, universities, local school districts, and others with an interest in vocational-technical education. The following activities are indicative of the type of work undertaken by these units: establishment of a state research advisory committee; inventory of research resources within the state; review of state vocational programs and identification of problems amenable to research; formulation of an overall state research philosophy; dissemination of research information; review of research proposals and provision of technical consultant services.

Cooperating and Coordinating Program Activities with Other Agencies Symposium

A. Office of Economic Opportunity  Gwendolyn Bullock

In keeping with the general philosophy of the Office of Economic Opportunity, more attention should be directed toward the leadership development aspect of this seminar and less to the specific topic for this symposium, "Cooperating and Coordinating Program Activities with Other Agencies." The OEO does not view itself as particularly cooperative; rather its role is viewed as a catalytic one.

The role of community action agencies is to attempt to change traditional institutional ways of viewing the poor. Vocational education programs are a prime concern of manpower programs, for upgrading skills of the unemployed and underemployed. The urgency of redesigning training programs, including MOTA programs, based on other than traditional guidelines can be seen from the following figures. The percentages of persons receiving MOTA institutional training with less than 8 years of schooling were: 7.6% for 1964; 7.1% for 1965; 6.1% OJT in 1964 and 4.2% for 1965, a significant decrease. A large proportion of the poor then are obviously excluded, since the poor generally have too little education to be eligible for entry.

Clinton M. Fair, Legislative Representative for AFL-CIO poignantly depicted the relationship between employment and illiteracy.

The relationship between illiteracy and unemployment has been clearly established. Industry is increasingly coming to demand higher levels of education among its workers. The adult of little or no education is condemned to work in low-skill, underpaid jobs. Among the unemployed, as many as 12% have less than 5 years of schooling and 35% have had not more than 7 years of schooling.
The best planned training program is of little use to workers who can neither read nor write. Functional illiteracy places the workers in a social caste from which there is little chance for escape or for movement into better occupations.

OEO's self image is that of catalyst for institutional change. We are willing and able to spend money to demonstrate to established agencies that there are other ways to accomplish the same end. Ideally, the experimental projects now ongoing under our auspices should be phased out and their techniques adopted or adapted by vocational schools throughout the country. OEO has chosen an innovative approach to education.

The role of the federal government in providing aid to education and training is to stimulate not stultify, to support not supplant, to catalyze not control.

B. Extension Education

Margaret Oliver

The Federal Extension Service, in cooperation with State Cooperative Extension Services, has over 25 different pilot programs throughout the country for developing and testing new methods and materials for educational work.

Many of the current pilot projects focus on ways to work with groups that have been bypassed—not only by previous Extension programs, but by society itself.

The following information describes one of these pilot projects being conducted in West Virginia:

In July of 1964, West Virginia University Center for Appalachian Studies and Development, in cooperation with the Federal Extension Service, began a 5-year experimental pilot project to provide educational programs.

The program is being conducted in three counties (Clay, Putnam, and Lincoln) around Charleston, West Virginia. One area in each county was chosen for concentrated work. In each of the three communities, family income and individual educational attainment are considerably below the United States averages.

The overall objectives are to:

Assist families to learn daily tasks of home and family management.
Help prepare children to overcome present social and academic barriers.
Assist families to understand family needs and develop self-help skills in providing for them, thus improving their home environment. Provide those types of activities which will enable the individuals to be better prepared to move into the flow of community activities and decisions. Devise and test new methods and materials designed to accomplish these objectives. Counteract demoralizing attitudes and inspire feelings of hope and self confidence.

"Spring Comes To Vintroux" is a documentary motion picture which tells about the steps taken by the Cooperative Extension Service to establish the program in one area. The film is a progress report of people whose hopes have been renewed, for whom new windows have been opened for opportunities for learning, and new desires kindled for working together to improve family, home and community environment.

C. Rehabilitation Agencies

Raymond A. Ehrle

In the 1950's it became apparent that the preventive and developmental guidance philosophy was not meeting the needs of all persons. As a result of the continuation and magnification of social pressures, it became apparent that an extension of the guidance philosophy was necessary. This marked the advent of rehabilitation as a philosophy. At the point where developmental processes are inadequate and to the extent that trauma or disease has intervened after an individual has become an adult, rehabilitation begins.

Although Public Law 565, passed in 1954 was limited to only the "vocational" aspects of persons with physical disabilities, within a few years persons with mental, emotional and even social disabilities were made eligible to receive rehabilitation services. And very recent legislation such as the MDT Act of 1962, the VE Act of 1963, and the Economic Opportunity Act of 1964 has served to further expand the scope of rehabilitation.

Rehabilitation agencies include state divisions of vocational rehabilitation, community rehabilitation centers, sheltered workshops, mental hospitals, VA hospitals, schools for the handicapped and private agencies, such as Goodwill and the Easter Seal Society. At this time, there is a pool of approximately 2,300,000 persons who might be rehabilitated. Last year 130,000 individuals were successfully rehabilitated by approximately 5,000 working rehabilitation counselors; 3,500 of this number are working in state agencies. Although
the primary task of the rehabilitation counselor is to counsel, he may also be responsible for providing or arranging for other services to the client, including physical restoration services, training, providing books and training materials, maintenance, placement, tools, equipment and initial stocks and supplies, acquisition of vending stands or other equipment, transportation, occupational licenses and other goods and services necessary to render a handicapped individual fit to engage in a remunerative occupation.

In terms of cooperating and coordinating services with other agencies, a number of complicating factors are immediately apparent. These factors include, (a) the sheer number of agencies to be dealt with, (b) the need for service coordinators as agencies expand and provide more services, (c) the professional claim which each agency has on its particular domain as a matter of law or a matter of tradition, (d) the problem of who shall control the professional resource; and (e) the conflict as to what type model can best provide services.

D. Health Services

The term health occupations was first used in Federal legislation for vocational education in Title II of the George-Barden Act, in 1946. Title II authorized a 5 million dollar appropriation annually, to be used by states on a matching basis, for the provision of training for health workers below college grade. PL 88-210, the Vocational Education Act of 1963, made this authorization permanent and provided additional funds, not earmarked, for training in all occupations below the baccalaureate level. Regulations under PL 88-210 define health occupations for purposes of the Act as those occupations that are "supportive to the health professions such as medicine, nursing and dentistry."

Organizations concerned with the education of health workers at the sub-baccalaureate level are numerous. Each professional society assumes the prerogative of a profession in setting standards for practitioners within its area. A listing of the numerous organizations concerned would serve to fulfill the problems inherent in coordination and cooperation between education and the health occupations field.

In identifying methods for improving cooperation and coordination that have been found to be successful, the following should be emphasized:

1. Centralization of curricula for geographic area, with a limited number of school administrative
units involved in planning, developing and operating programs.

2. Community-wide planning for all levels of educational preparation and training for health workers.

3. Effective organization and use of advisory committees, with one committee for each specific occupation.

4. Responsibility for program development at state and local levels assigned to persons who are knowledgeable in the health occupations field and dedicated to the goal of providing the numbers and quality of health workers needed.

5. More effective communication among agencies and organizations of program goals, accomplishments, unmet needs, and problems.

6. Formal and informal liaison with agencies and societies concerned with the program of health occupations.

E. State Government

Edmund Mester

Our world is currently undergoing two major revolutions: a revolution of civil rights, and a technological revolution. In this age of instant communication and a new flow of federal monies, daily coordination is essential. Many agencies are concerned with vocational and technical education; in order for each program to function effectively close cooperation and coordination are mandatory.

The work needs to know the acceptability, the respectability of getting one's hands dirty in honest work. Our obligation is to educate toward this respectability. Further, we need to deal with people as individuals. A placard from the recent Watts area riots illustrates this necessity, "I am a human being; do not bend, fold, or mutilate." Vocational education can meet these challenges.

State and Local Supervision

Walter Arnold

Vocational-technical education is currently undergoing a thorough investigation by the U. S. Congress Sub-Committee on Education and Labor. The basic issue threading both
throughout the current investigations and throughout the history of vocational education is the same: why would, why should vocational education as a system be the responsible agent for the training job in our country? How did vocational education get involved initially?

From the early history of our country most vocational skill has been obtained by the pick-up method, rather than by organized training programs. The major training groups involved are military, private, business and industry, and the public sector. With all these factors considered, still most vocational skill is obtained by arbitrary methods. What effect does this have on the economy? What is being done about the inflationary effect of the excessive costs of producing goods with unskilled, unschooled labor?

Vocational education is a modern social efficiency device; on this premise it was originated and on this premise it will continue to survive.

Has vocational education ever been put to a cold, hard test? Is the curriculum superficial? Is the personnel competent? Is existing equipment adequate? Are the students of a kind to produce skilled workmen?

The basic rationale for vocational education is the development of skill for the labor force. It is of the utmost importance to vocational educational leaders today to understand the full implication of the interdisciplinary approach in all programs of vocational education. More specifically vocational educators need to be concerned with the economic and social problems of the country as they relate to and affect vocational education. In a similar manner, vocational education has to be attuned to meet the needs and problems of a growing economy and a rapidly changing society.

Vocational education is moving into a systematic approach. The steps in the system are:

1. The Laws, Federal and State
   These initiate the programs, set the purposes, and provide the funds.

2. The Regulations, Policies, and Procedures at Federal and State Levels
   These expand and amplify the provisions of the laws and assist the states in implementing new expanding programs.

3. The State Plan
   This is the contractual agreement between the federal government and the state which sets up the program
standards and requirements under which the state will operate.

(4) The Projected Program Activities
This new step requires the state to submit annually a proposal for spending the federal and matching funds, identification of needs of the states with respect to both employers and people, and an explanation and justification of the proposed program developments and expenditures in the light of the six new purposes of the Vocational Education Act of 1963.

(5) The Annual Reports--statistical, financial, descriptive and special
The newly revised reports are the first informational feedback into the system and will have considerable influence upon the new or different directions the program should take.

(6) The Evaluation
This provides continuous feedback onto all of the previous steps in the system. It is made in the light of immediate and long time goals and measures both quantity and quality of programs. It has great value as feedback into the system in identifying deficiencies.

(7) Public Information
This part of the system, (not working very well now), is especially important in creating a good image of the program among different populations.

(8) Research
This is the most important feedback of all. Findings and recommendations from research are to be disseminated back into the operation level of the programs, a facet of utmost importance in making the whole program effective. It is important that the whole system is directed toward the ultimate goal--an educated, skilled society.

We are also entering into a nationwide system of area vocational and technical schools which ultimately will, in fact, make vocational education opportunities readily accessible to persons of all ages, in all communities of the state.

The great need in leadership in vocational education today is for the skilled administrator who is very well informed on all kinds of educational and training programs, and
even more importantly has the skill to apply the programs to meet the needs of people without the beneficiaries of the programs being conscious of the source of the program. The day is passing rapidly when it will be possible for the traditional vocational educator to live and work only within the range of the traditional Smith-Hughes and George-Barden vocational education programs. If we do not develop leadership of this kind, we can be assured that such leaders will appear elsewhere.

If vocational education programs do not meet the needs of the people, we can also be assured that other persons and agencies will appear on the scene to meet those needs. This is the real challenge to vocational education leaders.

Evaluating Progress in Vocational-Technical Education

Bernard Michael

The Vocational Education Act of 1963, authorizing Federal grants to states to assist them in strengthening and improving the quality of vocational education in the nation, also specified periodic review of vocational education programs and laws. This year, 1966, the Secretary of Health, Education and Welfare is required to appoint an Advisory Council on Vocational Education to review and make recommendations concerning the status of vocational education programs, the administration of these programs, and the Acts under which funds are appropriated.

Provision was made, when the Division of Vocational and Technical Education in the U. S. Office of Education was reorganized to administer the new legislation, for a small evaluation staff to work directly with the Assistant Commissioner responsible for these programs and to serve as liaison with the Council, when it is appointed by the Secretary.

Stated as simply as possible, the objectives of the Division's evaluation program are: to develop a comprehensive and responsive system for determining the effectiveness of vocational-technical education programs in terms of the purposes of the Acts; to organize the system to meet short and long term needs of the U. S. Office of Education for program planning and decision making; and to provide leadership and service to the states, assisting them to carry out their program evaluation responsibilities.

Outlined here is a summary of the approach which will be followed:
1. Define objectives basic to the administration of the Vocational Education Act of 1963 and aspects of other legislation administered by the Division of Vocational and Technical Education.

2. Identify and group the major items, measurements of which will serve to indicate program status under above objectives.

3. Develop a system which will provide measurement (qualitative as well as quantitative) of above items.

4. Analyze findings in relation to established objectives.

5. Report on implications of evaluation findings for program planning and policy making.

Measurements which will be developed to assist in analyzing progress toward achieving objectives should include:

1. Trends in numbers and characteristics of persons enrolled in and completing programs, compared with the estimated proportion of the population needing or desiring training.

2. Success in terms of pre-employment information.

3. Effectiveness in achieving objectives in terms of follow-up information.

4. Effectiveness in terms of the ability of state administrations to plan and organize programs.

5. Assessment in terms of cost effectiveness and other analyses of expenditures.

**Evaluation and Accreditation of Vocational and Technical Education Programs**

George Brandon

Vocational education has consistently spoken of evaluation; the evaluative intent dates to 1917. The field will be increasingly singled out for evaluation. Vocational educators can take one of two approaches to this trend: they can become defensive, or they can consider it as a help rather than a hindrance. We have lived a long time with the term "minimum standard", now we are forced to face the fact of political and perhaps economic evaluation.
Current problems in the realm of vocational-technical education evaluation are several: the severe obligation to evaluate; the responsibility for evaluation as specified by recent legislation; the logistics of keeping evaluation current; the criticism from many sources; the difficulty of communicating with other disciplines vitally involved; the lack of current accreditation standards; the lack of administrative attention to evaluation; and a lack of clarification of the role of professional organizations for establishing criteria and executing evaluation.

The ultimate purpose of education and of evaluation is expressed in this quotation from The Harvard Business Review:

"To look is one thing.
To see what you look at is another.
To understand what you see is a third.
To learn from what you understand is still something else.
But to ACT on what you learn is all that really matters."

The Role of Professional Organizations
Lowell A. Burkett

What is a Professional Organization?

It is a banding together of those in a profession for the purpose of improving the profession; to give status to the profession; to help the individual to improve himself through leadership participation and involvement; to pool the resources of the profession in order that each individual can benefit from the experience of others; to provide a vehicle whereby new concepts can be initiated, researched and tried out.

It is a banding together of those in the profession for their voices to be heard; to ward off "enemies" of the program; to tell the facts about the program; to develop policy, educationally, legislatively and ethically.

What are the component parts of the AVA organization? The organization is built by members, affiliated state associations, the House of Delegates, the Board of Directors, and the AVA staff. State associations carry out the program of work as it relates to state interests and share in AVA policy decisions. The House of Directors serves as the administrative body and formulates relevant administrative policies. The AVA staff carries out these policies, serving
as the "watch-dog" of the profession. Functioning as a
clearinghouse, staff members coordinate professional activi-
ties of affiliated states.

The professional organization carries out the program of
work as established by the membership, examines needs of the
profession, and provides both personal and professional services
to members.

Every person engaged in vocational education is a member
of the profession; accordingly each vocational educator has
an obligation to be a participating member of his professional
organization.
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b) Bennett, Thomas R. *The Leader Looks at the Process of Change*.

c) Blansfield, Michael G. *The Leader Looks at Appraisal of Personnel*.

d) Brown, David S. *The Leader Looks at Authority and Hierarchy*.

e) Brown, David S. *The Leader Looks at Decision-Making*.

f) Buchanan, Paul C. *The Leader Looks at Individual Motivation*.

g) Knowles, Malcolm S. *The Leader Looks at Self-Development*.

h) Lippitt, Gordon L. and Edith Whitfield. *The Leader Looks at Group Effectiveness*.

i) Pollock, Ross. *The Leader Looks at Staff-Line Relations*. 

Schmidt, Warren R. *The Leader Looks at the Leadership Dilemma.*

k) This, Leslie E. *The Leader Looks at Communication.*


APPENDIX A

LEADERSHIP TECHNIQUES
Conference Procedure

100 Participants meet at 10 tables to discuss both agenda topics.

100 Participants meet in General Session.

10 table chairmen meet and put together final report of consensus of the Conference on the agenda topic.

10 Chairman go on to Chairman Meeting. Remaining Participants go on to discussion of next topic.

One of these Chairman reads the final report to the 100 Participants at the General Session.

U. of Md. LDS - 1
U. S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE
Office of Education
Division of Vocational Education
Washington 25, D. C.

NATIONAL LEADERSHIP DEVELOPMENT CONFERENCE

Instruction to Chairmen at Chairmen's Conference

1. Decide immediately which one of you will make the report on this topic to the General Session. An alternate will stand by and will be prepared to give the report if the one decided upon cannot give it for any reason.

2. It is essential that only consensus of opinion, ideas and statements already expressed in the reports from the table represented by you, be considered at this level.

3. The Conference Program Coordinator will keep you informed as to your time schedule.

4. Make sure that all persons in your group are in agreement that the statement which purports to be the consolidation of all reports is satisfactory. This should be done for each question.

    A. To the extent that it is possible to show the weight of agreements, please do so. For example, if on any point, all tables unanimously agreed, this should be shown. If on another point only 5 tables made mention of the item, please report it that way and not that half were "for" and half "against."

5. Your final report on this topic should take from 12 to 14 minutes to give.
U. S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE
Office of Education
Division of Vocational Education
Washington 25, D. C.

NATIONAL LEADERSHIP DEVELOPMENT CONFERENCE

Instruction to Conference Table C: Areas

Note: You should contact the Project Coordinator for any service or materials your group needs which you do not find provided.

BEFORE MEETING AT CONFERENCE TABLES

1. Please become familiar with the contents of Suggestions to the Leadership Team, included in your packet of materials, before going to your Discussion Table.

AT CONFERENCE TABLE

Note: Persons other than participants will be permitted to observe at your table. Participants only are to be permitted to discuss any topic or question.

1. Questions suggested for the discussion will be on your table at the beginning of the session, for distribution to each participant.

A. It is suggested that you read through all questions with the participants. Then determine from them if they approve the questions as a helpful guide in developing a meaningful discussion. If they do not approve you will have to agree on what questions will guide your discussions. Be sure, in case of new questions, that the full question is stated on your report as well as the answer you reach.

B. Use one reporting form for each question. All reports are to be made with pencil.
ADVANTAGES OF THE CONFERENCE METHOD

The conference is a form of discussion based upon a problem experienced first-hand by all the participants. A solution developed by the conference method should encourage experienced supervisors and workers to think about their problems, to state the facts about them clearly, and finally to decide what should be done about them. By the end of the conference, members should have reached an agreement as to the best solution to their problem.

Properly used, the conference method has many advantages. The conference members can speak freely and can feel that they are giving valuable information to the group. The instructor is a guide, not a boss, and the training becomes informal and democratic in nature. Under these favorable circumstances, the participants learn to analyze jobs and situations, to use good judgment, and to cooperate with others in pooling experience and in reaching a conclusion. The conference method is a democratic way of instructing the group members to think efficiently and to work together harmoniously.

WHEN TO USE A CONFERENCE

The conference method is suitable for well-defined situations in many fields of work. To make sure that it is planned appropriately, check the situations with these tests:

1. The participants should have experienced the same problem or problems, and
2. Some of them, at least, should have tried to solve the problem.
Unless these two conditions are met, the conference may result in time-wasting chatter. Remember that a conference draws upon the experience of the members for its material. A group of foremen or supervisors will profit greatly through pooling their knowledge about the problems of the shop or plant. Without such experience, the members would have little to contribute, and they would likely be disinterested. Do not use the conference method when the following situations exist:

1. The participants are inexperienced.
2. New information is to be introduced and presented.

Conducting a conference for a group of inexperienced participants in a new or strange field or area may be quite useless. It may result in the pooled ignorance of the group.

HOW TO USE A CONFERENCE

In this, as in all other training situations, the preparation of the leader before the session is very important. Even though the participants provide most of the information, the leader must know the problems that will probably be brought up, the questions to be used, and the points that will need to be emphasized. It is also important that the leader arrange for the comfortable seating of the participants around a table in a quiet and well-lighted room.

The leader must exert control of the meeting without seeming to dominate. This means control so that conclusions reached represent the thinking of the group. It is not the leader's right to control the decisions of the group. His job is to encourage the broadest participation in order to get a pooling of ideas and a mutual exchange of experiences.

HOW TO CONCLUDE A CONFERENCE

Finally, a conference, like any other discussion, must be completed by a summary. The leader may ask the participants to suggest summary statements or concluding points of agreement. While listening, the leader will sense when these suggestions have the approval of the group. Then, he should write them on the blackboard. In this way, the leader emphasizes both the cooperative nature of the conference and the points that have been made. The next steps for the group and its members should be clearly spelled out by the leader.
SUGGESTED TOPICS FOR CONFERENCE LEADERS

1. Public Relations in Trade and Industrial Education
2. Program Evaluation under the Vocational Education Act of 1963
3. Teacher Problems Requiring Supervisory Assistance
4. Effective Supervisory Meetings
5. Human Relations in Supervision
6. Teacher Training Needs Under the New Act
7. Advisory Committees
8. Effective Day to Day Supervision
9. Area Vocational-Technical Schools
10. Curriculum Laboratories
11. Professional Associations
12. Program Standards
13. Teacher Training for Extension Teachers
14. Program Effectiveness through Coordination
15. Relating Trade and Industrial Education to other Vocational Services
16. Self-Evaluation and Improvement
17. Establishing and Maintaining the Necessary Contacts with Management and Labor
18. Improving the Vocational Education Image
19. Securing Needed Facilities and Equipment
20. Developing Leadership Qualities
21. Accentuating the Dignity of Work
22. Recruiting New Staff Members
23. Working Effectively with Disadvantaged Groups
24. Overcoming Objections or Hindrances to Effective Trade and Industrial Programs
25. Vocational-Industrial Clubs

26. New and Emerging Occupational Areas

27. Meeting the Challenge of Dropouts

28. A Statewide Program of Research

29. Working with the Bureau of Educational Assistance in the Selection, Placement, and Follow-up of Students

30. "In-School" Occupational Guidance Programs

31. "Out of School" Youth Occupational Guidance Programs

32. Establishing Standards for Special "Short-term" Pre-employment Courses

33. Special Needs of Youth

34. Becoming Prepared to Meet Changing Conditions

35. Apprenticeship

36. Financing Trade and Industrial Programs

37. Justifying Vocational Education Expenditures

38. Curriculum and Course of Study Development

39. National Needs as Seen by State People

40. Applying Trade and Industrial Techniques to Other Service Areas
### Important Steps in the Operation

<table>
<thead>
<tr>
<th>Step: A logical segment of the job when something happens to ADVANCE the work.</th>
<th>Key Point: The KEY to doing the job correctly, safely, efficiently, or accurately.</th>
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</thead>
<tbody>
<tr>
<td><strong>WHAT DOES THE WORKER DO?</strong></td>
<td><strong>WHAT MUST THE WORKER KNOW TO DO THIS JOB?</strong></td>
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</table>

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**U. of Md. LDS - 7**
QUESTIONS

WHY - do we do it?
WHAT - is its purpose?
WHERE - should it be done (location)?
WHEN - should it be done (timing)?
WHO - should do it?
HOW - should it be done?
WHICH - is the better?

SOME KEY "QUESTION" WORDS

Analyze
Calculate
Clarify
Classify
Compare
Construct
Contrast
Criticise
Describe
Develop
Estimate
Evaluate
Explain
Figure
Give
Give the Answer

High-light
Indicate
Justify
List
List in Order
Make
Outline
Point Out
Select
Show the Relationship
Sketch
Tell
Trace
Work Out
Write in Sequence
# Training Check Sheet

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<tr>
<th></th>
<th>Poor</th>
<th>Fair</th>
<th>Average</th>
<th>Good</th>
<th>Excellent</th>
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<tr>
<td>1. Objective (How clearly was the objective stated?)</td>
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<td>2. Topic (Did the topic to be covered arouse interest?)</td>
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<td>3. Atmosphere of the Group (Was there a spirit of friendliness, enthusiasm, and controlled good humor?)</td>
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<td>4. Cases and Examples (Were the points of discussion illustrated by cases and examples?)</td>
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<td>5. Use of Questions (Did the leader use questions that stimulate responses and discussion? Did he start them with Why, What, Where, When, Who, and How?)</td>
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<td>6. Distribution of Questions (Were questions well distributed so as to draw out the bashful?)</td>
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<td>7. Statements by the Leader (Did the leader refrain from posing as an authority?)</td>
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<td>8. Rewording and Rephrasing (Did the leader rephrase responses in brief and simple language?)</td>
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<td>9. Staying on the Subject (How well did the discussion stay on the subject?)</td>
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<td>10. Group Control (Did the leader curb private talking, discussions on the side, interruptions?)</td>
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<td>11. Coverage (How much progress did the group make? Did they move along quickly from point to point?)</td>
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<td>12. Drawing Conclusions (Did the leader summarize and review items at the conclusion?)</td>
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<td>13. Reaction of Group</td>
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<td>14. Speaking Directly to the Group (Did the leader look at and speak directly to group?)</td>
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<td>15. Voice (Were tone and pitch of leader’s voice pleasing?)</td>
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Use back of sheet for comments.
Conference Leader's Plan

TOPIC:

OBJECTIVE(S):

INTRODUCTION (TELL US AND SELL US):
CONFERENCE LEADER'S PLAN  Continued  55

CHART III

SUMMARY OR CONCLUSION
Subject: SEVERAL INDIRECT TEACHING METHODS

Aim: To present to you briefly the settings and possible uses of some variations of the Discussion Method. These variations are given the name--The Conference, The Panel Discussion, and The Symposium.

THE CONFERENCE

The conference is a "round-table" technique--prepared addresses are out-of-order. It is designed to draw out, to evaluate, and to integrate. The conference leader is a traffic officer of ideas.

The steps involved in a conference procedure:

1. Assembling of experience from the group.
2. Selection of such experience data or facts as function directly on the problem.
3. Evaluation of pertinent data or experience.
4. Conclusion or decision as to the best procedure.

The physical setting usually consists of a suitable room with a leader's table, blackboard, and the conference members seated about a U-shaped table.

When the conference is in action, case studies, or charting, is often used. Charting consists of placing a heading on the blackboard and listing the reactions of the members of the group to that heading. An important feature of conference leading is not to put the headings on the board until needed. Questioning is usually "overhead." Samples of chart headings follow:

<table>
<thead>
<tr>
<th>Difficulty or Problem</th>
<th>Cause</th>
<th>Remedy</th>
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</thead>
</table>

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<tr>
<th>What is Wrong?</th>
<th>Who Is to Blame?</th>
<th>What Can Be Done About It?</th>
</tr>
</thead>
</table>

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THE PANEL DISCUSSION

For use in large groups. The discussion leadership is in the hands of the "panel," usually a group of some four to eight.

The usual panel procedure:

1. Questions by leader to members of panel, who answer.
2. Discussion between members, or between members and leader.
3. Later, at the end of the panel's discussion, the audience gets to ask questions of leader or members.

THE SYMPOSIUM

For use in large groups. Members usually make speeches directly to the audience. Often speakers follow in order, after being started by leader. At completion of speeches, audience asks questions of individual members. The symposium tends to make a teaching situation more personal than lecture alone.

By way of summary, it will be noted that these three methods are best used in the order that they have been presented as the group grows increasingly larger. For instance, the conference is best used with groups of similar interests and responsibilities consisting of some eight to sixteen members. Fewer members than eight or more members than sixteen present some additional problems for the conference leader. The panel discussion may be used with groups ranging up to around two hundred or more, while the symposium is used with groups too large to be taught by any other method.
LEADERSHIP DEVELOPMENT SEMINAR

RECORDER'S OFFICIAL REPORT

Conference Number __________________ Recorder's Name __________________

Date __________ Time __________

TOPIC __________________________

Outline Form

I. Main Points

   A. Sub-points

      1. Discussion
LEADERSHIP DEVELOPMENT SEMINAR

NEED HELP WITH A PROBLEM?

- Which Questions Need Answers - Now?

Let The Conference Members Help You With Your Problem -
They May Come Up With a Solution!

PROBLEM ______________________________________

________________________________________________

________________________________________________

________________________________________________

________________________________________________

QUESTION NO. 1 ________________________________

________________________________________________

________________________________________________

________________________________________________

Which conference group should answer this for you? ______________________________

QUESTION NO. 2 ________________________________

________________________________________________

________________________________________________

________________________________________________

________________________________________________

Which conference group should answer this for you? ______________________________

NOTE: Enclose This Sheet With Your Registration Form.

U. of Md. LDS - 18
DISCUSSION 66

Premise

Premise of Discussion 66 - Discussion 66 is based on the assumption that any leader who desires to use a discussion technique desires it in order that all the group's valuable ideas may be brought out.

Procedure

Procedure of Discussion 66
A. Speaker or Panel of Speakers have just concluded
B. Audience divided as it is into groups of 6
   1. 3 in front row and 3 back of them in 2nd row make up committee of 6
   2. Get acquainted----------------------(IS TO CONSUME 2 MINUTES)
      a. Introduce themselves
      b. Shake hands
      c. Elect a chairman - leads
      d. Elect a secretary - spokesman - reports
C. Every person in audience may suggest a question for speaker or speakers to answer without suggestion or prompting from anyone------
   -----------------------------------------(IS TO CONSUME 2 MINUTES)
D. Secretary-Spokesman records all questions suggested
E. Committee as a whole decides which one of the questions submitted is most valuable or important and is to be answered by the speaker or speakers-----------------------(IS TO CONSUME 2 MINUTES)
F. Meeting Chairmen calls on as many secretary-spokesmen as possible to announce questions to be asked.

Comparison of 66 and Old Discussion Method

"Phillips 66"

Old Discussion Methods
A. Provides time so all may participate
B. Specific questions carefully and fully prepared
C. Thinking of each small group released for benefit of all

Old Discussion Methods
A. Controlled by minority
B. Questions not carefully thought out
C. Small number of individuals' thinking revealed

Other Uses of Discussion 66

A. To make public many facts known only to a few members of a group
B. To provoke audience questions
C. To evaluate an experience shared by the group
D. To make nominations
E. To achieve other purposes dependent upon a quick canvass of the thinking of the group

Discussion 66 Developed by J. Donald Phillips, Director of Adult Education
Michigan State College, East Lansing, Michigan

U. of Md. LDS-19
ROLE PLAYING FOR TEACHERS

Role playing can be used to dramatize a simple situation in which two or more people take an active part. The situation should be one in which the group has had experience or one which the group might be expected to encounter in the immediate future.

Essentials of a Role Playing Situation

Leader selects the situation.
Leader defines the characters.
Situation should involve two or more people with different ideas.
Dialogue should be spontaneous.
Parts are not memorized.
Participants and audience should examine the varying points of view.
Reaction of characters should be thoroughly analyzed.
Individuals may:
Play roles depicting themselves
Take a familiar role
Undertake an unfamiliar role

Ways to Set Up a Role Playing Situation

Select a problem or situation.
Establish details of the case.
Define the roles.
Establish goals of those participating.
Clarify the goals of those observing.
Role play the situation.
Discuss in detail the situation and the reaction of the group.

Select a Problem or Situation

Make sure the group recognizes the problem.
Determine the extent to which the group is concerned with the problem.
Determine whether or not the group feels something can be done about it.
Find out to what extent the group feels something can or should be done about the problem.

Establish Details of the Case

Permit total group to help set up the situation.
Make problem as realistic as possible to them.
Bring the group as early as possible.

Define the Roles

Assist active participants in understanding the situation.
Help them recognize their specific role.
Involve the group in orienting the cast.
Establish Goals of Those Not Participating

The leader should discuss with the observers their goal. Leader should suggest that the group watch what unfolds as case progresses. Leader should ask group to watch reaction of the role players. Leader should tell group their part in the actual situation if they are to be drawn into active participation.

Get the Role Playing Situation Underway

Leader should introduce the situation and the skit. Leader should introduce participants and define their role. Leader should keep the role playing situation on the track. Leader "cuts" action while interest is still high. Leader controls the situation to avoid embarrassment on the part of the participants and observers.
The shadow panel is utilized to secure maximum audience participation. The procedure used is the reverse of that normally associated with the panel. Instead of the usual procedure of the audience directing questions to the panel, in the shadow panel method, each member of the panel, in turn, directs a question to the audience.

The question put out in overhead fashion should draw out several points of discussion. In addition, the panel member or the moderator may follow-up the overhead or general question with one or more specific questions to narrow, clarify, or draw out details from an audience participant.

How Many Panel Members?

Three or four panel members and a moderator should be a sufficient number to create an interesting discussion and keep things moving. The moderator must create a permissive atmosphere wherein the audience participants feel free to discuss the various "angles" of the topic under consideration. He should not "expert" the subject nor should the panel members create the impression that they have "the answers." The panel members should be astute enough to secure through questioning the kind of answers or the quality of discussion that has given the group the opportunity to think through the points under consideration.

How Many Questions?

Each panel member should have prepared and carefully considered at least one broad overhead question. If discussion is lively, he may not need to utilize the three or four specific questions prepared to follow up on the broad opening question. The moderator should watch the timing and pass along to the other panel members the opportunity to raise their overhead questions so as to provide balanced discussion. Failure to watch timing on the part of the moderator can result in a long discussion period on one topic and insufficient discussion time on another.

Role of the Panel Members

Each panel member has in mind a thought-provoking question which he introduces after the panel moderator has oriented the audience briefly. The panel member listens carefully and watches audience reaction. He may urge several participants to talk before he makes an observation or raises another question. Whatever he does, it will be in the interest of good discussion and clear thinking. If the panel has agreed in advance, the moderator may carry the ball in the stimulation of discussion after the panel member has raised the initial question. However, this is a detail that can be agreed upon prior to opening the discussion. In any event, the panel members should not let audience members trap them into answering or "experting" the questions.
question or problem the panel itself has raised.

Role of the Moderator

The moderator should have met with the panel prior to the actual discussion period. Each person should know his or her responsibility. A few appropriate remarks on the part of the moderator should create a feeling of desire to participate in open discussion on the part of the group.

The moderator then calls on a panel member by name and suggests that he raise the question, pose the problem or cite the case he has in mind. While the panel member is speaking, the moderator should survey the audience for evidence of interest so as to quickly get a reaction from the group. He will want to draw in others as time goes along. New speakers should be encouraged to get into the discussion rather than to let the "windy" ones monopolize the time.

There exists the danger that the moderator will "lose" himself in the discussion and give a speech. This is fatal. The moderator can always go back to the panel member if he needs help in keeping the discussion moving. His job is to keep order, maintain balance, get participation, keep communication channels open, work the issues, smooth ruffled feelings, strive for distribution of participation, keep time, and keep the ball rolling on the subject.

A good summary by the moderator should close off the discussion at the end of the allotted time. The moderator should have met with his panel and should know the questions that will be asked. His remarks to the audience can pave the way to new points for discussion if he is an alert, experienced moderator.
SUCCESSFUL job performance is dependent upon an understanding of job requirements. Periodic personal evaluation for the purpose of redirecting emphasis on activity that may have been neglected or overworked is important to excellent supervision. A device helpful in evaluating the role of the supervisor in improving instruction is a list of supervisor competencies.

COMPETENCIES RELATING THE IMPROVEMENT OF INSTRUCTION

1. To organize, select, and evaluate instructional materials, devices, and aids.
2. To voice valid opinions in the selection of instructors.
3. To thoroughly orient and induct newly selected instructors.
4. To skillfully demonstrate the teaching process.
5. To adequately evaluate instruction.
6. To keep instruction up to a standard in keeping with recognized needs.
7. To bring about excellence in classroom, laboratory, or shop organization and management.
8. To conduct challenging teachers meetings.
9. To effectively communicate with individuals and groups.
10. To successfully practice human relations.
11. To reliably appraise vocational training programs.
12. To effectively plan activities for optimum results.
13. To skillfully train instructors or to intelligently participate in teacher training activity.

COMPETENCIES RELATING TO PROGRAM ADMINISTRATION

1. To organize and promote the total program of vocational education.
2. To make satisfactory contacts and maintain cooperative relationships with business, industry, labor, government, finance, education, and the like.
3. To acquire the necessary program facilities, including buildings, equipment, and supplies.

U. of Md. - LDS - 22
4. To provide direction to a program that may have many facets.

5. To maintain satisfactory working relationships with other educational departments at the local, county, area, State, and/or National level.

6. To handle financial problems including budgets, buildings, payrolls, bond issues, and the like.

7. To promote and maintain good human relations and excellent public relations.

8. To recruit, select, appoint, assign, orient, educate, and evaluate instructors and other staff members.

9. To carry on an effective communications program.
CASE STUDIES APPROACH TO LEADERSHIP

Case studies are important devices in the training and development of leaders. When used for this purpose, case studies tend to take the training of leaders out of the category of the theoretical and bring it to a practical level. Primarily, factual material is used and this gives the leader an opportunity to work with materials closely allied to the job situation.

There are a number of sources of case studies. Most commonly involved are the following: actual experiences, observed situations, hearsay, recorded materials, hypothetical situations, and factual materials.

Case studies create considerable interest on the part of those involved in training. The participants find the experiences of others satisfying and this makes the outcomes seem more practical. Case studies are popular with groups because:

- There is opportunity to cite examples helpful to others
- The opportunity to corroborate evidence is important to the trainee
- The substantiating of opinions comes to the fore in case study situations
- The opportunity to set up and analyze problems has value to the participants
- There is a broadening of experience that comes to the group as a result of studying details of the case
- The material with which the group is working tends to lend interest to the undertaking

Case studies may be large and involved or they may be simple situations. It is well to begin with simple situations and to be sure that there is careful analysis of the facts involved. The case study should provide an opportunity for the group to carefully list the facts and see the relationship of one fact to another before attempting solutions. While case studies may be utilized to dramatize a principle, this, however, is more particularly the function of role playing. In selecting a case study, you should consider whether this case study could be used in a meeting without some of the group feeling that the finger was pointing directly at them.

Group leaders should find the following suggestions helpful in handling discussion of case studies. In addition, discussion questions should be prepared to assist in starting groups to work and analyzing and seeking solutions to the problems. It is not intended that the questions should limit the range of discussion. However, leaders will want to guard against being led down the path of side issues not germane to the challenge offered by the topic and discussed in the case study.
Suggestions for group leader:

1. Read the case carefully before the discussion period to become familiar with the principal situation or problem involved.

2. Prepare any additional background information clarify the case. Feel free to use notes.

3. If you so decide, give the case to the group in advance of the discussion meeting, in order that members may have an opportunity to become familiar with it.

4. Introduce the topic. Use an approach appropriate for the selected method of discussion.

5. Set the stage for discussion; encourage the group to freely express ideas, to ask questions, to make comments.

6. Read the case to the group. You may think it important to re-read part of the case, or stop long enough to have a clarifying discussion of a certain section before completing the entire reading.

7. Stimulate and guide group discussion.

A. Identify the principal problems in the case.

B. Establish objective(s)

C. List the significant facts in the case.

   1. Actions and conditions contributing to the principal problem
   2. Rules and customs applying
   3. Feelings and opinions of persons involved

D. Weigh and decide

   1. Fit the facts together
   2. Consider their bearings on each other
   3. Propose several possible actions
   4. Check practices and policies
   5. Consider the action in light of the objectives and the effect on those involved

E. Take or get action

   1. Develop a plan
      a. Procedures
      b. Persons to be consulted
      c. Persons to be responsible
      d. Timing of action

F. Check Results

   1. Follow-up
      a. Timing
      b. Frequency
   2. Evaluate effect of action
THE BUZZ SESSION

The buzz session is a device for involving every member of a large audience directly in the discussion process. The audience is divided into small groups (5 to 7 members) for a limited time (5 to 7 minutes) for discussion to which each member contributes his ideas.

The Buzz Session May Be Used:

1. To develop questions for a speaker or panel.
2. To discover areas in which the group would like more information or further study - especially useful for institutes or conventions.
3. To discover areas of special interest for future programs.
4. To evaluate a meeting, institute or convention in terms of its value to the participants.

Advantages:
1. Provides a source of fresh ideas of real interest to the group.
2. When used in planning, it promotes individual identification with the program and its goals.
3. It gives everyone a chance to participate without having to get up in front of the full meeting.

Limitations:
1. The amount of individual participation is restricted.
2. Contributions of the several groups may be contradictory or difficult to combine.

Stage

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0 = Group leaders
O = Recorders

Movable chairs facilitate quick organization of buzz groups. In an auditorium with fixed seats, the first three in the front row turn and face the three sitting behind them in the second row. The next three face those behind them, etc.

Cards and pencils should be distributed quickly while or before the groups form

Procedure:
The chairman must assign limited and specific objectives to the buzz groups. Directions must be clear and explicit. If the audience is unfamiliar with the method, a demonstration group may be formed. Each group should designate a leader and a recorder quickly. The leader sees that every member has his say. The recorder makes a written record of each contribution on the card provided. Oral reporting of group findings by the leader is preferred. In very large meetings, the buzz session may be used by providing for a second round of buzz sessions of the leaders of the original groups.
LEADERSHIP DEVELOPMENT SEMINAR
Vocational-Technical Education

Discussion Leader or Chairman

1. Makes sure that everyone in the group knows one another.
2. Gets the group started promptly, budgets the time available and adjourns the section on time.
3. Makes certain that responsibility for recording is established.
4. Sets the pattern for free participation of all members of the group.
5. Helps the group reach agreement on the questions to be considered.
6. Keeps discussion on the subject by asking clarifying questions, relating the discussion to the topics being considered, and asking next-step questions.
7. Provides the opportunity for everyone to participate and is careful to avoid domination by one of a few of the more vocal members.
8. Calls upon the recorder when necessary to state what seems to him to be a consensus.
9. Obtains approval of the group for the final statements to be reported.
10. Remembers that he is not a teacher or principal speaker but a guide for group thinking.

The Recorder:

1. Feels free to participate as a member of the group.
2. Takes notes of points made in each phase of the discussion which will be useful in making a statement of the consensus of the group.
3. Records, on reporting forms provided, the exact statement agreed upon by the group for each question. If a minority view is expressed it should be noted that it is a minority view.
4. Makes certain that all information asked for on the form is provided.
References: The School Review, LXV, No. 3 pp. 303-313

Team Teaching at Bloom Township

High School. A report from the Center for Cooperative Study of Instruction, University of Chicago

Excerpts from the above:

Purposes of team teaching

A. To capitalize on teacher competency and experience

B. To stimulate under achievers and give them an opportunity to perform

C. To meet individual needs and individual differences through regrouping of personnel

D. To avail students of teacher resources outside the team

E. To offer flexibility and motivation by both students and teachers

F. Objectives

1. To utilize small groups for interaction between student and students, and between students and teachers

2. To encourage creative and critical thinking

3. To provide varying points of view upon a major movement in American life

4. To correlate two subjects

U. of Mo. LDS-27
What is **Programmed Learning**?

Programmed learning is a way of learning and a way of presenting materials to be learned. It is essentially self-instructual and therefore permits each learner to work at his own pace. It may or may not make use of a teaching machine.

**IMPLICATIONS FOR STUDIES IN PROGRAMMED TEACHING**

1. What areas of subject matter can be effectively taught by self-instructional programs?
2. Might self-instructional programs be combined with other methods of teaching?

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1 Used by permission. Agricultural and Home Economics Extension Service, The Pennsylvania State University, The Evaluator, Number 19, June 1963

U. of Md. LDS-28
PROGRAMMED INSTRUCTION TODAY AND TOMORROW

By

Wilbur Schramm

"Programmed instruction is, in the best sense of the word a truly revolutionary device, but it is revolutionary not so much in itself, as in its ability to interact with certain other developments in education.

In programmed instruction the program is the important thing and usually contains:

a. an ordered sequence of stimulus items
b. to each of which a student responds in some specified way
c. his responses being reinforced by immediate knowledge of results
j. so that he moves by small steps
e. therefore making few errors and practicing mostly correct responses
f. from what he knows, by a process of successively closer approximation toward what he is supposed to learn from the program."

"Through wise use of programmed instruction the administration can provide for many difficulties presented by the ungraded school and the dual progress plan. Selection of excellent programs may administer the "coup de grace" to the old dragon of progress-by-yearly-lockstep in the closed classroom."

Much research remains to be done in this field.

From "Programmed Instruction" by Wilbur Schramm, Director of the Institute for Communication Research, Stanford University

References: Programmed Learning, a bibliography of Programs and Presentation Device
Carl H. Hendershot, Delta College, University Center, Michigan

U. of Md. LDS-29
THE LISTENING TEAM TECHNIQUE

The listening team technique is used to focus attention of small groups or teams on a specific question while listening to a presentation. It usually produces lively and enthusiastic audience participation. The technique gives direction to listening, stimulates thinking and increases the amount and quality of discussion. Members of the team react and discuss phases of the presentation with other team members and arrive at a consensus which is later reported to the entire group.

In an audience of 100 persons or more, two or more teams may be listening and reacting to the speaker's presentation utilizing the same question. Usually, five or six different questions can be raised that are sufficiently diverse in nature to create genuine interest on the part of the participants.

The speaker should be briefed on the technique and made aware of the discussion pattern. The advanced briefing by the general chairman should alert the speaker that there is no need for a rebuttal to team reactions. After all reports are made by the team chairmen, the speaker may be called upon to clarify items for the group.

HOW IT WORKS

I. Several teams are organized by a designated leader
   a. Members should get acquainted
   b. A question is assigned each team
   c. A chairman should be elected
   d. A recorder is designated to take notes and report to the audience.
   e. Every member should understand the question.

II. The speaker makes a presentation
   a. Members of the teams listen carefully relating what is said to the question assigned their team.
   b. Notes should be taken by team members to assist in discussion following the presentation.

III. The teams listen, discuss and report
   a. Following the presentation, the teams discuss the presentation.
   b. Observations appropriate to the question should be recorded.
   c. The recorder reports the reactions of his team to the audience when called upon.
Typical listening team questions--

A question that stimulates thinking and reaction is given each listening team. Some typical questions include the following:

a. Which suggestions presented by the speaker seem most practical for use in your work?

b. How can the ideas or concepts presented by the speaker be put to work by Vocational Educators?

c. What are the major barriers that would have to be overcome before the ideas presented could be used in your program?

d. Which ideas seemed least practical for use in vocational education?

e. What things not said, should have been given greater attention by the speaker?

f. What did the speaker say that does not "check" with your experience or your views?

Meeting chairman or designated leader must organize the listening teams before the speaker begins his presentation. This will take 10 or 15 minutes. The teams should be permitted to raise questions about their assignment or the organization prior to the speaker's presentation.

Careful briefing on the part of the chairman should prepare the speaker for the discussion and reporting that follows his speech. He should recognize the fact that no rebuttal is necessary on his part. Should a clarification statement on the part of the speaker be requested, he should be encouraged to make some objective observations.
QUESTIONING TECHNIQUE

INTRODUCTION

1. The conference leader's primary job is to promote discussion. Since this is done particularly through questioning members of the group, the leader should know how to ask questions that will bring results.

2. There is more than a little to the art of asking questions, particularly leading questions, and considerable practice is required of every person who hopes to stimulate constructive group thinking. No less important is the use of questions which will keep the discussion on the right track.

3. Questions which may be answered "Yes" or "No" have very little use in discussion excepting when they are used in a rhetorical sense for emphasis, rather than expecting an answer.

4. The simplest suggestion to leaders as to how questions for conference work should be phrased is conveyed by a paragraph from Kipling's "The Elephant Child":

   I keep six honest serving men
   (They taught me all I know)
   Their names are WHAT and WHY and WHEN
   And HOW and WHERE and WHO

GENERAL TYPES OF QUESTIONS

1. Direct questions
   a. Addressed to a definite person
   b. A means of getting a man to express himself

2. Overhead questions
   a. Addressed to entire group
   b. To promote thinking, to start discussion and to bring out different opinions
   c. Response may come from anyone

3. Rhetorical questions
   a. Addressed to entire group
   b. To promote thinking--to set a general theme
   c. No response is to be expected from the group in the form of a verbal answer

KINDS OF QUESTIONS

1. Ask for a definition
   a. "Who can define 'coordination'?"
   b. "Define a 'conference'."
QUESTIONING TECHNIQUE

2. Ask for an experience
   a. "What experience have you had along this line?"
   b. "Can you give me an experience showing how you have handled this kind of complaint?"

3. Ask for an opinion
   a. "What do you think of that statement, Jim?"
   b. "What do you think is the right way to handle such a situation?"

4. Ask for information
   a. "How many complaints have you had in your departments?"
   b. "How many accidents were there during the year in our plant?"

5. Ask for an estimate
   a. "How many incidents like that do you think we have each year?"
   b. "What percentage of rejects do you think we have each day?"

6. Ask a leading question
   a. "Would you discharge a man whom you caught smoking in a prohibited area, if it was his first offense?"
   b. "Wouldn't it be better to get the best decision we can, rather than to keep discussing it?"

7. Test a man's knowledge
   a. "What is our company's policy in respect to a complaint which a worker wants to carry over the head of his supervisor?"
   b. "How many hours of related instruction is required each year for the apprentices in your department?"

8. Ask a provocative question
   a. "Is the way to get results—to drive your men hard?"
   b. "You are accused of 'passing the buck'—what would you do?"

9. Ask a controversial question
   a. "Do you think that leadership is a quality that is born in a man?"
   b. "What do you think of the use of frequent praise as an incentive for securing cooperation and loyalty from your men?"

10. Ask for a definite commitment
    a. "What is it—yes or no?"
    b. "How many favor our decision?"
QUESTIONING TECHNIQUE

SUGGESTIONS FOR CONSTRUCTING QUESTIONS

1. All questions should require thought to be fully and properly answered. This rules out most questions which may be answered "yes" or "no".

2. Questions should be brief and easily understood.

3. Questions should be related directly to the topic under consideration and should cover a single point.

4. Questions should stimulate the thinking of the entire group.

5. Ask the question, and if direct, call on the person to answer.

6. Keep the vocabulary within the understanding of the group.

7. Get the question properly stated and then give it that way.

8. Avoid questions that encourage guesswork.

9. Not all questions are followed by a question mark
   a. EXPLAIN how you start a new man on the job
   b. JUSTIFY your discharge of Bill Jones yesterday
   c. DEFINE morale
   d. DESCRIBE how you teach an apprentice to use the sensitive drill on his first job
   e. CLASSIFY the following list of accidents
   f. SUMMARIZE the discussion of the topic used this morning
   g. ILLUSTRATE your point with a specific case

10. Make free use of these six words:
    a. WHAT are some of the qualities that a good "on-the-job" instructor must possess?
    b. WHERE does the responsibility rest for quality?
    c. HOW can quality be maintained by each man?
    d. WHY are employees tardy?
    e. WHO is responsible for the training of new employees?
    f. WHEN should a supervisor plan the work of his department?

11. Arrange questions in a natural order so that the resulting answers lead to a logical conclusion.

12. Avoid asking direct questions in any set order among members of the group.
INTRODUCTION

1. Just as certain tools are required by the skilled mechanic for jobs in the plant, so are special methods and devices required or used by the conference leader to encourage, control, clarify and summarize the discussion.

2. The skilled conference leader must depend upon his ability to reach out and select one or more of the conference devices which seem appropriate to deal with a specific problem or situation to the best advantage.

3. A few of the more important devices include
   a. Questions
   b. Case studies
   c. Demonstrations
   d. Evidence, experts and witnesses
   e. Charts or blackboard
   f. Text material
   g. Slide films and motion pictures

USE OF QUESTIONS*

1. **To call attention to a point that has not been considered:** "Has anyone thought about this phase of the problem?"

2. **To question the strength of an argument:** "What reasons do we have for accepting this argument?"

3. **To get back to causes:** "Why do you suppose Doakes takes this position?"

4. **To question the source of information or argument:** "Who gathered these statistics that you spoke of?" "Who is Mr. Gish whose opinion has been quoted?" "Do you know that as a fact, or is it your opinion?"

5. **To suggest that the discussion is wandering from the point:** "Can someone tell me what bearing this has on our problem?" "Your point is an interesting one, but can't we get back to our subject?"

6. **To suggest that no new information is being added:** "Can anyone add anything to the information already given on this point?"

7. **To call attention to the difficulty or complexity of the problem:** "Aren't we beginning to understand why our legislators haven't solved this problem?"

8. **To register steps of agreement (or disagreement):** "Am I correct in assuming that we all agree (or disagree) on this point?"

* Extracted from Auer and Ewbank's, HANDBOOK FOR DISCUSSION LEADERS, Harper and Brothers, New York
CONFERENCE TOOLS

9. **To handle the impatient, cure-all member:** "But would your plan work in all cases? Who has an idea on that?" "Hadn't we better reserve judgment until we all know more about this problem?"

10. **To draw the timid but informed member into the discussion:** "William, here, lived for quite a while in Italy. Suppose we ask him whether he ever saw...?"

11. **To handle a question the leader can't answer:** "I don't know. Who does?"

12. **To help the member who has difficulty expressing himself:** "I wonder if what you're saying is this...?" "Doesn't what you've said tie in with our subject something like this...?"

13. **To encourage further questions by friendly comment:** "That's a good question. I'm glad you raised it. Anyone have an answer?"

14. **To break up a heated argument:** "I think we all know how Jones and Smith feel about this. Now who else would like to get in on it?"

15. **To bring the generalizing speaker down to earth:** "Can you give us a specific example on that point?" "Your general idea is good, but I wonder if we can't make it more concrete. Does any know of a case...?"

16. **To suggest the value of compromise:** "Do you suppose the best course of action lies somewhere between these two points of view?"

**USE OF CASE STUDIES**

1. What is a "case study?"
   a. An experience, or an event or a situation which describes pertinent details bearing on the problem being discussed
   b. Some types of case studies
      (1) An actual experience
      (2) An observed event
      (3) Heresay
      (4) From reading
      (5) An imaginary case

2. What are some of the purposes for using case studies?
   a. To serve as factual material
   b. To serve as examples
   c. To sustain evidences or substantiate opinions
   d. To set up problems or situations for analysis
   e. To broaden experiences of group
CONFERENCE TOOLS

USE OF DEMONSTRATIONS

1. What is a demonstration?
   a. The physical evidence to verify a conclusion
   b. Evidence supported by all the senses and faculties
   c. Seeing it, hearing it, touching it, doing it

2. What are some of the types of demonstrations?
   a. Physical operation—such as how to operate a certain machine, like a drill press, or an adding machine
   b. Technique—such as a supervisor demonstrating how he talks to an employee who has just "flown off the handle" and quit
   c. Materials—such as an exhibit of a competitor's products
   d. Qualities—such as a welded joint tested by some device or expedient

USE OF EVIDENCE, EXPERTS AND WITNESSES

1. Evidence
   a. Records of the company—to prove trend of production, over head, labor turnover, costs, sales, marker opportunities, etc.
   b. Statistics—obtained from reliable sources and shown in relation to their significance to the group
   c. Plant reports—evidence concerning the number of complaints or grievances, or their kind, concerning the kind and number of accidents, etc.
   d. Methods studies—report of operations, time and motion studies in written or film form, etc.

2. Experts and witnesses
   a. Supply evidence
   b. Sell validity of facts brought out
   c. Add interest to the proceedings

USE OF CHARTS AND BLACKBOARD

1. What are the advantages of using charts?
   a. Provides a visual aid
   b. Serves to pin down the group
   c. Serves as jumping off place for discussion
   d. Keeps the discussion on a clear track
   e. Provides a summarizing vehicle
   f. Stimulates interest
   g. Provides a creative satisfaction to the group
CONFERENCE TOOLS

2. Making charts
   a. Size—to fit size of group
   b. Type of paper
      (1) White bond paper, 36 inches wide
      (2) High grade newsprint
      (3) Pads of paper, 20 x 26
      (4) Light-colored wrapping paper
   c. Mounting charts
      (1) Affix to wall
      (2) Use of chart stands
      (3) Use window blinds
   d. Marking crayon
      (1) Use lumber crayon
      (2) Use compressed charcoal
      (3) Use colored crayons

3. Hints for chart work
   a. Write legibly
   b. Express thoughts intelligibly
   c. Supply adequate lighting
   d. Use short words
   e. Use diagrams
   f. Plan chart before discussion
   g. Keep pace with thinking of group

4. Use of blackboard or charts to record
   a. Facts summarized
   b. Facts classified and arranged
   c. Advantages and disadvantages
   d. Generalization or deductions
   e. Summaries or conclusions
   f. Analysis of causes and effects
   g. Contributing factors
   h. Conclusions and agreements of group
   i. Planned step for attaining objective

5. Other hints
   a. Don't stand in front of writing
   b. Talk while writing
   c. Write in straight lines
   d. Face group when discussing what has been written
   e. While writing, stand sidewise
   f. If charts are used, the blackboard should be used only as an accessory for gathering transient information, which after being summarized on the chart, is erased from the blackboard
THE PANEL METHOD
By Russell Greenly

The Panel Method of conducting discussion is used for the purpose of planning, sharing experiences, pooling contributions, clarifying thought in making decisions. This brochure offers suggestions for carrying on discussion with instructors, foremen, supervisors, and executives, when the aim is to clarify thought on some common topic, upon which members of the organization have conflicting ideas. A short description of each technique in this method is being presented.

1. Need -- Increasing within our civilization is a need for cooperative thinking, planning, and acting. The panel discussions afford opportunity for training minor and major executives in cooperative techniques. Moreover, discussion itself is very stimulating to creative thinking, sympathy, and other desirable outcomes.

Panel discussions properly guided furnish a form of vital and enjoyable activity, which should bring about rich education returns for those interested in the techniques.

2. Description
   The elements of the panel are four:
   a. Chairman
   b. A Panel--four to eight persons
   c. An audience
   d. A topic for discussion

   The entire panel group is seated in a semi-circle, facing the audience, and the chairman is in the center.

   No speeches are made but a free-for-all discussion takes place between the members of the panel exactly as though no audience were present. The chairman coordinates and interprets this discussion, attempting to weave the separate strands and ideas of thought into a complete design in which each finds its place. There must be no debate, no conflicts. Instead the spirit which dominates the discussion is that any and every view is a contribution and has a place in the completed pattern. The activity of bringing unity out of the diversity of ideas and viewpoints is the peculiar function of the chairman; the function of the individual members is to supply creatively the diversity of ideas and elements. When the general pattern of the discussion is clearly seen, opportunity is given for the entire audience to contribute.

   Finally, the chairman summarizes the discussion and indicates the general benefits accruing from the discussion activities.

3. Chairman -- The most important factor in the success of a panel discussion is the chairman. He must have hospitality of mind to a very high degree and resourcefulness in selecting, harmonizing, and combining different points of view.
He must be a good judge of personalities, be a tactful, socially minded, witty individual with a background of broad culture, to enable him to seize quickly upon the valuable elements of each offering. He offers very few ideas, himself, confining his contributions to emphasizing significant elements and to the weaving and organizing process.

In the final summary he has the opportunity to integrate the products of a discussion into a worthwhile whole.

4. Members -- Panel members should be ready thinkers, fluent speakers interested in the topic, and representatives of the wide variety of viewpoints and interests. Above all, they must be cooperative in attitude.

Ordinarily, the selection of the panel will be made by the chairman. In industry where foreman conference work is being conducted, it might be advisable that the Superintendent of the Division select the panel and the panel members select the chairman. After more experience has been gained, the panel might be selected by the group members themselves.

5. Selection of the Topic -- The topic chosen for selection should be one about which conflicting or different views are held by members of the panel. It should be specific in that it deals with a narrow, single thought, but it should be general in its form of statement.

Illustrations

a. How can workers secure what they want?
b. How should we reduce wastes?
c. How far can foremen go in allowing the operators to learn new work habits?
d. What methods are employed in teaching operators on the job?

There should be sufficient preliminary stimulation of experiences or thought to insure an adequate supply of ideas in the audience and panel.

Panel discussions might well be considered the second step in conference procedure, where a new subject is being brought into industry and certain individuals have been asked to prepare themselves by reading related literature upon the subject under discussion.

Another method of stimulating thinking is to have groups visit an industrial organization for the purpose of having a discussion about the value they derived from such an experience.

6. Preparation of the Panel -- Ordinarily, the first step in the discussion is a preparatory meeting of the chairman and panel, in order that the chairman may become acquainted with the panel, may acquaint the members with each other, and may make them familiar with the conditions of the discussion.
The chairman asks each member of the panel to give a brief biographical account of himself and of his interest in the topic. Almost any subject will do as a basis for comment. The purpose is to have the panel members become accustomed to informal discussion under the direction of a chairman.

The chairman should emphasize the fact that no member of the panel is to stand or to make a speech. The panel member must think creatively and contribute as he sees best.

He should emphasize, also, both the undesirability of opposition to another's contribution and the need to entertain any thought or viewpoint, however irrelevant it may at first appear.

He should also emphasize the importance of each individual's contributing with perfect freedom every aspect of his own personal thinking and viewpoint. He should make clear that the spirit of friendship and good will should be consciously and systematically maintained without in any way limiting freedom of thought and expression.

Where panels have been developed, within industry, and members of the panel have become fairly well know to one another, there is no need for a preliminary meeting. The first few times the directions may need to be repeated to the panel and audience together, but as soon as the members attending such panel meetings know the technique, the discussion can go forward without preparation.

7. Preparation of the Audience -- The second step is the explanation to the audience of the method of conducting a discussion. This explanation should repeat the instructions to the panel and make it clear that the panel is serving as the mouthpiece of the group, because an informal discussion is too cumbersome in a large audience.

The audience is asked to listen only until the general pattern of ideas is established, and the promise should be made that ultimately the discussion will be thrown open for all.

The chairman should stand while making this explanation and should emphasize the fact that speeches are "taboo." He should conclude by clearly stating the problem for discussion and then sit down and begin the discussion.

8. Discussion -- The third step is to call upon some panel member for his expression of opinion on the selected topic. The chairman should listen thoughtfully to the ideas expressed, mentally selecting the essential elements of the contribution, restating them in slightly different words and asking some other panel member what he thinks about the matter. In this way the discussion continues.

9. Duties of the Chairman -- The chairman's specific duties are:

a. To stimulate contributions.
b. To repeat or reformulate contributions a sufficient number of times to give the audience and panel time to consider for themselves the point or points made.
c. To supply illustrations when a panel member states a principle or to generalize when a panel member gives specific illustrations. This also provides time and opportunity for understanding.

d. To give recognition, by name, systematically but subtly, for each contribution made.

e. To emphasize aspects of contributions significant for the pattern or design which develops, the chairman may guide by asking questions and by emphasizing the statement dominating, or direct the discussion to a specific and predetermined outcome.

f. To interpret the inter-relations of diverse contributions both to each other and to the general pattern.

g. To summarize and to integrate from time to time and at the close of the discussion.

h. To decide when the contributions of the panel have been sufficiently brought out to include the audience in the discussion.

10. Conflicts — One peculiar and important function of the chairman is to prevent emotional clashes and tensions. The best means of doing this is the interjection of humorous or whimsical comments immediately following the slightest indication of opposition or tension. The interruption gives time for the members involved to regain rational control, and the laughs that follow humorous comments ordinarily aid relaxation.

On the other hand, the chairman must exhibit the utmost tolerance for conflicting ideas and have a genuine interest in each point of view presented. Members should be encouraged to contribute conflicting points of view, but not to assume an antagonistic or argumentative attitude.

11. Control — Another important factor is the control of obstreperous individuals, who destroy the conditions under which the discussion is being conducted, and egotistically and aggressively insist on making speeches. Here again, humorous interpretations and the passing of a question to a panel member are effective means.

12. Outcome — In general, the chairman is to build bridges from mind to mind, out of aggressive, creative, automatic thinking; to manufacture by emphasis and redirection a rich, comprehensive and consistent view of the whole topic, with each element in its proper place and relationship. Sometimes, it is sufficient if supposed views and reasons are brought to light and arranged in position. It is not essential to success, in this type of discussion, that a decision be reached. The goal is the clarification of thought.

13. Chairman’s Preparations — The chairman in preparing for his task needs to canvass as completely as possible all sides and viewpoints that he made and to plan how he will utilize it in the development of his final design.

He must have a plan and a goal, yet he must not dominate nor control but accept what comes. He may, however, stimulate the expression of the ideas he desires by shunting questions to individual members of the panel whose viewpoints are likely to lead them to respond as desired.
A successful preparation insures that no surprises will come out during the discussion, and no serious deficiencies at the end of the discussion. The chairman, however, needs to exercise great restraint not to force the discussion along the lines of his own thinking.

14. Reports -- In most instances it is desirable to have a stenographer strategically located in the audience, who will record the high points of the discussion. A verbatim report is then possible and each member attending the discussion might be furnished with mimeographed copies at a future date.

This eliminates the necessity for any member of the audience to take notes at any points in which he might be interested, and he is able to concentrate his entire attention upon the topic being carried on by the members of the panel.
Role Playing ---

The role playing technique was explained and a team was selected from among the conferees to put on a demonstration.

Role of Superintendent - (Techniques Used)

Let individual talk
Gave cooling off period
Promised answer
Went to correct person
Friendly atmosphere

Additional Techniques that Could Have Been Used

Might have built plumbers background
A complement on something else may have helped

How Did John Function When He Reported Back?

1. Didn't pass buck
2. Had an answer
3. Tried to set stage

Case Studies

Uses problem solving approach
Differs from role playing in that the person presenting cast presents an actual case in which he was involved
Case was presented
Problem solving technique was used
1. Get the facts
2. Weigh and decide
3. Take action
4. Check results

Brainstorming

A person can be trained in creative thinking.
Books by John Clark and Alex Osborne were mentioned.

Creative thinking is important to education.

Steps in Creative Power---

Orientation
Preparation
Analysis
Ideation
Incubation
Synthesis
Evaluation

Orientation---

Divide into sub problems
Laws of association (Aristotle)
Similarity
Continuity
Contrast
Blocks to being creative
Ignorance
Attitude

Basic ways to be creative

Make a check list
Set qualities for yourself
Set a deadline
Make a date with yourself

Question, association, observe, predict
Questioning is an act and is learned by exercising it

 lst of killer phrases discussed - Green Sheet

Four Rules - Yellow Sheet
KILLER PHRASES

This list was developed at a "Brainstorming Workshop" for the National Society of Sales Training Executives. If you don't want good ideas to curl up and die, put these killer phrases on your black list -- and keep them there!

Note: How many times have you heard these phrases?

It's not in the budget
Who thought of that?
I can't give you the money to go ahead
We're not ready for it
Everybody does it this way
Not timely
Too hard to administer
It's not progressive
Too theoretical
Production won't accept it
Personnel aren't ready for this
Won't work in my territory
Customers won't stand for it
The new men won't understand
The old men won't use it
Doesn't conform to our policy
We don't have the manpower
Takes too much time (work)
Don't move too fast
Has anyone else ever tried it?
We have too many projects now
Let's make a market research test first
Here we go again
Let's form a committee
Won't work in our territory
What do they do in our competitor's plant?

Where does the money come from?
Costs too much
Too (or too small) for us
We tried that before
Too academic
It's a gimmick
Not profitable
You'll never sell that to management
Stretches imagination too much
They'll think we're long-haired
Engineering can't do it
Why something new now? Our sales are still going up
Let's wait and see
Too much trouble to get started
Too hard to sell
It's never been done before -- why stick our necks out?
We don't want to do this now
Factory can't follow up
Not enough background
The union will scream
That's too ivory tower
Let's put it in writing
I don't see the connection
What you are really saying is . . . .
Let's sleep on it
OSBORN RULES FOR BRAINSTORM SESSIONS

1. Criticism is ruled out:

Allowing yourself to be critical at the same time you are being creative is like trying to get hot and cold water from one faucet at the same time. Ideas aren't hot enough; criticism isn't cold enough. Results are tepid. Criticism is reserved for a later "screening" session.

2. The wilder the ideas, the better:

Even offbeat, impractical suggestions may "trigger" in other panel members practical suggestions which might not otherwise occur to them.

3. Quantity is wanted:

The greater the number of ideas, the greater likelihood of winners.

4. Combination and improvement are sought:

Improvements by others on an idea give better ideas. Combining ideas leads to more and better ideas.
THE TASK FORCE ASSIGNMENT TECHNIQUE

The task force assignment technique is an important leadership development device. It provides the opportunity for individuals to reveal and demonstrate leadership ability.

Essentials of a Task Force

Essentials in utilizing the task force idea include:

A main group which meets as a unit for briefing before the task is assigned. It will meet a second time to hear the final report of the several committees.

Two or more sub-groups which have been given assignments of equal complexity. These sub-groups will work independently of each other to introduce the spirit of competition and rivalry.

Several committees formed within the sub-groups to handle specific phases of the assignment and to make oral reports before the main group.

A briefing session of the main group for a general presentation and discussion of the overall plan of operation. During this briefing session announcement is made of the final meeting when the reports of the two or more sub-groups will be given.

An assignment for each sub-group which should provoke thinking, involve research, and otherwise challenge the committees within the sub-groups to work together as a team. The assignment should be in broad and general terms, and should require a considerable amount of outside preparation. It should also stimulate individual initiative in preparing the oral report, the written report, and the supporting graphic materials.

A situation which requires telling, researching, reading, discussing, evaluating, thinking, planning, and working together to find a solution or series of solutions.

A resource person (or several resource persons) who assists the group in starting on the project, filling in any gaps in the assignment, clarifying major points, and helping the group to clearly understand the situation.
Once the task has been assigned, the resource person functions as a consultant, not as a leader of the group. Because the primary purpose of the task force assignment is to discover and activate leaders within the group, the resource person must not shape the group’s thinking, but should be available to help the group begin work on a solution to the situation as expeditiously as possible.

A rehearsal for those who are going to make the oral presentation to the total group. The resource person should work closely with the participants at this point to smooth out any rough spots in the presentation. Graphic aids should be utilized for maximum visualization of the material presented.

Timing should be carefully controlled so that the entire task force report can be presented. Insofar as possible, role playing should be utilized by the task force groups when making their final presentation. Audience participation may also be requested in the final report session.

Working on their own, under the leadership of key individuals elected to these leadership positions, the sub-groups prepare a presentation to be given to the total group. The presentation should include utilization of many leadership techniques such as role playing, group discussions, panels, explanation, illustration, and demonstration.

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TASK FORCE OBJECTIVES

To provide a situation and a setting in which the leadership potential of the group may be demonstrated.

To make it possible for individuals within each of two sub-groups to demonstrate capability in planning, organizing, and presenting an oral report to the entire conference group.

To provide the opportunity for each group to prepare a brief, carefully developed written report to accompany the oral presentation.

To encourage individuals, committees, and sub-group members to utilize the techniques of leadership discussed and demonstrated throughout the conference.
NATIONAL LEADERSHIP DEVELOPMENT CONFERENCE

TASK FORCE ASSIGNMENT

Resource material for this assignment is contained in the Iowa Project Plan of Activities for 1966. In approaching your assignment the following factors should be considered:

1. Certain necessary facts may be missing. It will therefore, be necessary for you to make assumptions in certain cases to achieve the required results. If assumptions are made, they should be carefully stated in order that the results shown in the completed report will have some valid basis in the conclusions reached.

2. An oral report is to be prepared for presentation to the group as scheduled. This report, supported by necessary graphic materials, should be prepared for presentation to an official group such as the State Board for Vocational Education, for the purpose of "selling" a satisfactory vocational education program.

3. A duplicated report is to be prepared by the task force group. Supplementary aids such as charts and pass-out materials to be used as part of the presentation should be included. This final report is to be prepared in professional style and duplicated for distribution to the entire group.

Future references to TF 1 refer to the Iowa Project Plan of Activities for 1966, too lengthy to include in this Seminar report. Interested persons may secure copies from the Division of Vocational Education, U. S. Office of Education.
LEADERSHIP DEVELOPMENT CONFERENCE

Task Force Assignment - Group A

Indicate the State's plan to extend and improve the vocational-technical education program during the year indicating where the emphasis is to be placed and justifying such emphasis. Use the Iowa State Plan of Projected Program Activities (TF-1) for background information. If problems arise in committee meetings as work on the assignment progresses, refer to handout sheets TF-2, and TF-3 for suggestions. Ask your consultant for assistance if the need arises.

Assignment

1. Describe the State's plans for the development and construction of area vocational education schools by:
   a. Number and types of schools (in terms of section 8 (2) of the Vocational Education Act of 1963)
   b. Educational level of program to be offered
   c. Occupational fields to be provided for
   d. Location and area (school district(s), county(ies), Statewide, to be served by the school
   e. Relate this to Item 3, Part A (See TF-1, P 20)

2. Describe the State's program priorities to expand vocational and technical education for high school students for the current year. (Refer to manpower needs and employment opportunities in Item 1, Part A, TF-1).
   a. New teaching personnel requirements
   b. New or additional occupational fields to be provided for
Assignment A continued

c. Plans for replacement or purchase of new equipment

d. Plans for improving facilities

3. Describe the State's program priorities to expand vocational and technical education for persons with special needs for the current year. (Refer and relate projections to manpower needs and employment opportunities in Item 1, Part A, TF-1)

a. New teaching personnel requirements

b. New or additional occupational fields to be provided for

c. Plans for replacement or purchase of new equipment

d. Plans for improving facilities

4. Describe the State's program priorities to expand vocational and technical education for post high school students for the current year. (Refer projections to manpower needs and employment opportunities in Item 1, Part A, TF-1)

a. New teaching personnel requirements

b. New or additional occupational fields to be provided for

c. Plans for replacement or purchase of new equipment

d. Plans for improving facilities
LEADERSHIP DEVELOPMENT CONFERENCE

Task Force Assignment - Group B

Indicate the State's plan to extend and improve the vocational-technical education program during the year indicating where the emphasis is to be placed and justifying such emphasis. Use the Iowa State Plan of Projected Program Activities TF-1 for background information. If problems arise in committee meetings as the work on the assignment progresses, refer to handout sheets TF-2, and TF-3 for suggestions. Ask your consultant for assistance if the need arises.

Assignment:

1. Describe the State's current year plans for strengthening programs of --
   a. Administration and supervision (State and local)
   b. Teacher training
   c. Vocational guidance (State and local)
   d. Curriculum development
   e. Research, experimental, and developmental programs
   f. Evaluation (State and local)

2. Describe the State's program priorities to expand vocational and technical education for persons with special needs for the current year. (Refer and relate projections to manpower needs and employment opportunities in Item 1, Part A, TF-1)
   a. New teaching personnel requirements
Assignment B continued

b. New or additional occupational fields to be provided for

c. Plans for replacement or purchase of new equipment

d. Plans for improving facilities

3. Describe the State's program priorities to expand vocational and technical education for post high school students for the current year. (Relate projections to Item 1, Part A, TF-1)

a. New teaching personnel requirements

b. New or additional occupational fields to be provided for

c. Plans for replacement or purchase of new equipment

d. Plans for improving facilities

4. Describe the State's program priorities to expand vocational-technical education for persons who have already entered the labor market. (Refer to manpower needs and employment opportunities in Item 1, Part A, TF-1)

a. New teaching personnel requirements

b. New or additional occupational fields to be provided for

c. Plans for replacement or purchase of new equipment

d. Plans for improving facilities
TF-4-C

For Discussion Purposes Only

U.S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE
Office of Education
Bureau of Adult and Vocational Education
Division of Vocational and Technical Education
Washington, D.C. 20202

LEADERSHIP DEVELOPMENT CONFERENCE

Task Force Assignment - Group C

Indicate the State's plan to extend and improve the vocational-technical education program during the year indicating where the emphasis is to be placed and justifying such emphasis. Use the Iowa State Plan of Projected Program Activities TF-1 for background information. If problems arise in committee meetings as the work on the assignment progresses, refer to handout sheets TF-2 and TF-3 for suggestions. Ask your consultant for assistance if the need arises.

Assignment

1. Describe the State's plan for surveying need, establishing priority, and the plan of implementation for a complete and modern program of vocational-technical education in the health occupations including:
   a. The nature of the survey
   b. Definition of the needed program (types and levels)
   c. The order or sequence in which needed programs will be initiated
   d. How other services can assist with the program
   e. A program of evaluation and modification or adjustment to meet the needs of expanding health programs

2. Describe the State's program priorities to expand vocational and technical education for high school students for the current year. (Relate projections to manpower needs and employment opportunities in Item 1, Part A, TF-1)
   a. New teaching personnel requirements
Assignment C continued

b. New or additional occupational fields to be provided for

c. Plans for replacement or purchase of new equipment

d. Plans for improving facilities

3. Describe the State's current year plans for strengthening teacher education programs. Specifically, give detailed information covering the following:

a. What will be done to assist home economics teachers who now prepare girls to enter gainful employment?

b. How will distributive education teachers and administrators be assisted in setting up preparatory training programs?

c. What teacher training courses or programs will be established for office occupations teachers?

d. Devise a plan to provide teacher education courses for evening extension teachers in the trade and technical fields including those who teach related instruction courses for apprentices.

4. Describe the State's program priorities to expand the vocational-technical education program for persons who have already entered the labor market. (Refer to manpower needs and employment opportunities in Item 1, Part A, TP-1)

a. New teaching personnel requirements

b. New or additional occupational fields for which provision should be made.

c. Plans for replacement or purchase of new equipment

d. Plans for improving facilities
The State's plan to extend and improve the vocational education program during the year will include emphasis on the following items:

a. New teaching personnel requirements.

Teachers of vocational agriculture in Iowa will enter the area of off-farm occupations during this year. The high school distributive education program will require three new teacher-coordinators for newly created positions opening in the 1965-66 school year. There will be the need for 35 new teacher-coordinators.

b. New or additional occupational fields to be provided for.

New cooperative programs in trade and industrial education will cover approximately 20 occupations, in addition to auto mechanics and machinist trades.

(The above statements are very brief examples of the kinds of projections to be developed by the group. Expanded projections should be included in the written report. Tables and charts may be prepared for use in giving the oral report, and where appropriate, may be included in the written report as well.)
APPENDIX C

EVALUATION INSTRUMENTS
LEADERSHIP DEVELOPMENT CONFERENCE

Date: ___________________________ Topic: ___________________________

Resource Person: ___________________________ Discussion Leader: _____________

1. Did you understand clearly the objectives for this session? _____________________________
   Were they adequately realized? _____________________________
   If not, which fell short? _____________________________

2. Did you think the resource person's training, experience and personal qualifications equipped him to do an able job as keynoter on this topic? _____________________________

3. Was the topic adequately illustrated:
   From the leader's own experience? _____________________________
   From skillfully chosen source materials? _____________________________

4. Did you consider the resource person helpful in his relationship to the smaller discussion group? _____________________________
   Did the discussion contribute to your understanding of the topic chosen for this session? _____________________________

5. What is your reaction to the methods and materials used by the group leader? _____________________________
   Please comment: _____________________________

6. Did you change, confirm, or strengthen any previous opinions as a result of this session? Please comment: _____________________________

7. Did this session prompt you to think in terms of putting a new idea or plan into practice "back home"? Please comment: _____________________________

U. of Md. LDS-15
LEADERSHIP DEVELOPMENT SEMINAR

CONFERENCE EVALUATION
First Week

We are interested in getting your reactions, comments, constructive criticism, and suggestions regarding specific phases of the conference. You need not identify yourself, unless you wish to do so. No attempt will be made to identify your paper, so feel free to express your opinions with complete frankness.

Please react to every item on the evaluation form. Draw a circle around the X that most nearly expresses your reaction. You are urged to comment wherever you wish to further clarify your point of view.

1. To what degree did you understand the objectives of the conference and those of the various sessions?

<table>
<thead>
<tr>
<th>Very Clearly</th>
<th>Clearly Reasonably</th>
<th>Not Very Well</th>
<th>Not at all</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

Comment:

2. In what measure were the stated objectives accomplished?

<table>
<thead>
<tr>
<th>Fully Adequately</th>
<th>Fairly Well</th>
<th>Inadequately</th>
<th>Not at all</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

Comment:

3. What is your reaction to the advanced planning and preparation for the Conference?

<table>
<thead>
<tr>
<th>Very Well Done</th>
<th>Well done</th>
<th>Adequate</th>
<th>Inadequate</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

Comment:

4. As a result of participation in the conference, my concepts of what a leader in the areas of teacher training and curriculum development in trade and industrial education should know and be able to do have been

<table>
<thead>
<tr>
<th>Greatly Clarified</th>
<th>Slightly Improved</th>
<th>Slightly Modified</th>
<th>Unchanged</th>
<th>Confused</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

Comment:
POST CONFERENCE EVALUATION.

Conference Identification:

DIRECTIONS: Please indicate your feelings about the conference in which you just participated. Do not sign this questionnaire. Draw a circle around the "X" that most nearly expresses how you feel.

1. very successful
   quite successful
   about average
   not very successful
   very poor conference

   X

2. Conference strong points:

3. Conference weaknesses:

4. What was most important and useful to you?

5. Briefly comment on major reasons for your reaction.
5. To what extent were members given an opportunity to participate actively in the meetings?

<table>
<thead>
<tr>
<th></th>
<th>Almost no Opportunity</th>
<th>Few</th>
<th>Some</th>
<th>Many</th>
<th>Every Opportunity</th>
</tr>
</thead>
<tbody>
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<td></td>
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</tbody>
</table>

Comment:

6. In your opinion, were there opportunities for personal conferences with group leaders and resource persons?

<table>
<thead>
<tr>
<th></th>
<th>Insufficient</th>
<th>Sufficient</th>
<th>Adequate</th>
<th>Adequate</th>
<th>Very Numerous</th>
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</table>

Comment:

7. The physical arrangements seemed to be

<table>
<thead>
<tr>
<th></th>
<th>Poor</th>
<th>Fair</th>
<th>Adequate</th>
<th>Good</th>
<th>Perfect</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>

Comment:

8. As to the provisions for getting acquainted and the allotment of time for fellowship, I feel arrangements were

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>Adequate</th>
<th>So-so</th>
<th>Adequate</th>
<th>Very Adequate</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
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</tbody>
</table>

Comment:

9. Please list changes you feel would improve the conference. (Touch on such items as: other objectives, different dates, new topics, specific resource people, variations in conference leaders and the like.)

10. Additional Comment. (Attach another sheet if more space is needed.)
Leadership Development Seminar

Instructions: This inventory/evaluation is intended to explore the way you feel about your own competency and understanding of leadership development. Opposite each item, listed below, place a check (✓) in the column that most nearly represents your true feeling concerning that item.

Please fill in this inventory/evaluation sheet and return it to the registration desk when you come to the conference. This is important.

<table>
<thead>
<tr>
<th>GENERAL</th>
<th>fair amount</th>
<th>some amount</th>
<th>small amount</th>
<th>none</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. My own present ability as a leadership development person</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. My own experience with the leadership development process</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>3. My understanding of the leadership development process</td>
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<tr>
<td>4. My skill in the use of the leadership development process</td>
<td></td>
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<td></td>
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<tr>
<td>5. My interest to help instruct others in the leadership development process</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>6. My curiosity to find out more about some of the more obscure elements of the leadership process</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>7. My present intent to use leadership development processes in my everyday work</td>
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<td></td>
<td></td>
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<tr>
<td>8. The ability of &quot;educators&quot;, in general, to learn and use the leadership development process</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>9. The extent of security I have in using the leadership development process</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>10. The degree to which my interest in the leadership development process may help overcome any insecurity I feel</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SPECIFIC UNDERSTANDINGS/SKILLS</td>
<td>none</td>
<td>small amount</td>
<td>some</td>
<td>fair amount</td>
</tr>
<tr>
<td>------------------------------------------------------------------------------------------------</td>
<td>------</td>
<td>---------------</td>
<td>------</td>
<td>-------------</td>
</tr>
<tr>
<td>1. My own understanding of our heritage in Vocational-Technical Education</td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>2. My understanding of Leadership - Administrative - Supervisory implications of Vocational-Technical Education legislation</td>
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<tr>
<td>3. My understanding of the place of Vocational-Technical Education in today's &quot;World of Work&quot;</td>
<td></td>
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<tr>
<td>4. My understanding of State plans and programs in Vocational-Technical Education in my own State</td>
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<td></td>
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<tr>
<td>5. My understanding of counseling and other supportive services in Vocational-Technical Education</td>
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<td></td>
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<tr>
<td>6. My understanding of programs of pre-and in-service teacher education in Vocational-Technical Education</td>
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<tr>
<td>7. My experience in working with/in programs of pre-and in-service teacher education in the area of Vocational-Technical Education</td>
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<td></td>
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<tr>
<td>8. My understanding of research and experimental programs in progress in Voc. Tech. Education</td>
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<td></td>
<td></td>
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<tr>
<td>9. My experience in working with research and experimental programs in Vocational Technical Education</td>
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<tr>
<td>10. My experience in coordinating Vocational-Technical Education program activities with other agencies</td>
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<tr>
<td>11. My understanding of the evaluative process and its relationship to Vocational-Technical Education</td>
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<tr>
<td>12. My skill in evaluating progress in Vocational-Technical Education</td>
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</table>

Other Comments:

Signature ___________________________
EVALUATION

Please fill in the following questionnaire.
List your responses in order of importance.
Be brief.
Thank you.

I. What has been MOST WORTHWHILE to YOU in this seminar? Why?

II. What has been LEAST WORTHWHILE to YOU in this seminar? Why?

III. What SUGGESTIONS do YOU have for the IMPROVEMENT of future seminars?
APPENDIX D

VOCATIONAL - TECHNICAL EDUCATION

STATISTICAL DATA
Estimated Fall Enrollment in Fifth Grade Compared With High School Graduates Eight Years Later: United States, 1949-57 to 1958-66

<table>
<thead>
<tr>
<th>Fall of</th>
<th>Fifth Grade Enrollment (in millions)</th>
<th>High School Graduates (in millions)</th>
<th>Dropouts, Fifth Grade to High School Graduation (in millions)</th>
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<tbody>
<tr>
<td>1949</td>
<td>2.4</td>
<td>1.4</td>
<td>1.0</td>
</tr>
<tr>
<td>1950</td>
<td>2.5</td>
<td>1.5</td>
<td>1.0</td>
</tr>
<tr>
<td>1951</td>
<td>2.7</td>
<td>1.6</td>
<td>1.1</td>
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<tr>
<td>1952</td>
<td>2.9</td>
<td>1.9</td>
<td>1.0</td>
</tr>
<tr>
<td>1953</td>
<td>3.0</td>
<td>2.0</td>
<td>1.0</td>
</tr>
<tr>
<td>1954</td>
<td>2.9</td>
<td>1.9</td>
<td>1.0</td>
</tr>
<tr>
<td>1955</td>
<td>2.9</td>
<td>2.0</td>
<td>.9</td>
</tr>
<tr>
<td>1956</td>
<td>3.3</td>
<td>2.3</td>
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<tr>
<td>1957</td>
<td>3.8</td>
<td>2.7</td>
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<tr>
<td>1958</td>
<td>3.7</td>
<td>2.7</td>
<td>1.0</td>
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Note: Includes public and non-public schools in the 50 States and D. C.

Vocational Enrollments and Percentages in Secondary Public Schools, Grades 9-12

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<tr>
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<tbody>
<tr>
<td>1965</td>
<td>11,618,000</td>
<td>2,612,098</td>
<td>(22.5%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1966</td>
<td>12,000,000</td>
<td>3,250,000</td>
<td>2/</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>1967</td>
<td>12,800,000</td>
<td>3,840,000</td>
<td>5,120,000</td>
<td>6,400,000</td>
<td></td>
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<tr>
<td>1968</td>
<td>12,800,000</td>
<td>3,840,000</td>
<td>5,120,000</td>
<td>6,400,000</td>
<td></td>
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<td>1969</td>
<td>13,200,000</td>
<td>3,960,000</td>
<td>5,280,000</td>
<td>6,600,000</td>
<td></td>
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<td>1970</td>
<td>13,500,000</td>
<td>4,050,000</td>
<td>5,400,000</td>
<td>6,750,000</td>
<td></td>
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</tr>
<tr>
<td>1975</td>
<td>15,000,000</td>
<td>4,500,000</td>
<td>6,000,000</td>
<td>7,500,000</td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

1/ From preliminary tables to be included in Projections of Educational Statistics, OE-10030 - 1966 Edition, Office of Education
2/ Estimated from preliminary reports
3/ The enrollments in day school secondary programs include the totals of 1,234,388 in 1965, and an estimated 1,280,000 in 1966, in Home Economics.

Vocational Enrollments and Percentages by Occupational Categories in Secondary Schools, Grades 9-12, School Year 1965

<table>
<thead>
<tr>
<th>Occupational Category</th>
<th>Enrollment</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>504,795</td>
<td>19.3</td>
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<tr>
<td>Distribution and Marketing</td>
<td>76,186</td>
<td>2.9</td>
</tr>
<tr>
<td>Health</td>
<td>8,744</td>
<td>0.3</td>
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<tr>
<td>Home Economics</td>
<td>1,234,788</td>
<td>47.9</td>
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<tr>
<td>Gainful Employment</td>
<td>14,169</td>
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<tr>
<td>Office</td>
<td>497,954</td>
<td>19.1</td>
</tr>
<tr>
<td>Technical</td>
<td>23,675</td>
<td>0.9</td>
</tr>
<tr>
<td>Trade and Industry</td>
<td>251,787</td>
<td>9.6</td>
</tr>
<tr>
<td>Totals</td>
<td>2,612,098</td>
<td>100.0</td>
</tr>
</tbody>
</table>
### Actual and Projected Enrollments and Percentages

**Vocational and Technical Education**

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td></td>
<td>4,566,390</td>
<td>100.0</td>
<td>5,430,611</td>
<td>100.0</td>
<td>5,789,520</td>
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</table>

<table>
<thead>
<tr>
<th>Enrollment by Type of Training Program</th>
<th>Enrollment</th>
<th>%</th>
<th>Enrollment</th>
<th>%</th>
<th>Enrollment</th>
<th>%</th>
<th>Enrollment</th>
<th>%</th>
<th>Enrollment</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>860,605</td>
<td>19.0</td>
<td>887,529</td>
<td>16.0</td>
<td>868,428</td>
<td>15.0</td>
<td>1,064,406</td>
<td>11.0</td>
<td>1,230,000</td>
<td>9.0</td>
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<tr>
<td>Distribution and Marketing</td>
<td>334,126</td>
<td>7.0</td>
<td>333,342</td>
<td>6.0</td>
<td>405,266</td>
<td>7.0</td>
<td>870,875</td>
<td>9.0</td>
<td>1,440,000</td>
<td>10.0</td>
</tr>
<tr>
<td>Health</td>
<td>59,006</td>
<td>1.0</td>
<td>66,772</td>
<td>1.0</td>
<td>173,686</td>
<td>3.0</td>
<td>677,350</td>
<td>7.0</td>
<td>1,450,000</td>
<td>10.0</td>
</tr>
<tr>
<td>Home Economics</td>
<td>2,022,138</td>
<td>44.0</td>
<td>2,098,520</td>
<td>39.0</td>
<td>1,968,437</td>
<td>34.0</td>
<td>2,322,340</td>
<td>24.0</td>
<td>2,100,000</td>
<td>15.0</td>
</tr>
<tr>
<td>Office</td>
<td>730,904</td>
<td>13.5</td>
<td>810,673</td>
<td>14.0</td>
<td>1,499,844</td>
<td>25.5</td>
<td>2,400,000</td>
<td>17.0</td>
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<td></td>
</tr>
<tr>
<td>Technical</td>
<td>221,241</td>
<td>5.0</td>
<td>225,737</td>
<td>4.5</td>
<td>260,528</td>
<td>4.5</td>
<td>675,500</td>
<td>7.0</td>
<td>1,260,000</td>
<td>9.0</td>
</tr>
<tr>
<td>Trade and Industry</td>
<td>1,069,274</td>
<td>24.0</td>
<td>1,087,807</td>
<td>20.0</td>
<td>1,302,502</td>
<td>22.5</td>
<td>2,566,100</td>
<td>26.5</td>
<td>4,120,000</td>
<td>30.0</td>
</tr>
</tbody>
</table>

1/ 44% in farming and direct farm-related training, and 56% in occupations limited to Agriculture.
### Occupational Education Enrollments by Purposes

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Secondary</td>
<td>1,308,453</td>
<td>1,442,807</td>
<td>2,540,240</td>
<td>2,715,795</td>
<td>2,819,250</td>
<td>2,378,522</td>
<td>2,254,802</td>
<td>2,140,756</td>
<td>6,384,701</td>
</tr>
<tr>
<td>2. Post Secondary</td>
<td>2,054,001</td>
<td>6,384,701</td>
<td>21,303,001</td>
<td>358,786</td>
<td>276,306</td>
<td>12,493,001</td>
<td>712,033</td>
<td>43,633</td>
<td>128,662</td>
</tr>
<tr>
<td>3. Adult</td>
<td>2,140,756</td>
<td>4,750,000</td>
<td>21,303,001</td>
<td>358,786</td>
<td>276,306</td>
<td>12,493,001</td>
<td>712,033</td>
<td>43,633</td>
<td>128,662</td>
</tr>
</tbody>
</table>

### Vocational Education Enrollment Act of 1963

<table>
<thead>
<tr>
<th>Year</th>
<th>Enrollment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1964</td>
<td>1,234,388</td>
</tr>
<tr>
<td>1965</td>
<td>1,295,150</td>
</tr>
</tbody>
</table>

### Vocational and Technical Education Enrollment

<table>
<thead>
<tr>
<th>Year</th>
<th>Enrollment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1964</td>
<td>1,234,388</td>
</tr>
<tr>
<td>1965</td>
<td>1,295,150</td>
</tr>
</tbody>
</table>

### Office Occupations

- Telecommunication
- Home Economics
- Health
- Marketing and Distribution
- Agriculture

### Categories of Vocational Education

<table>
<thead>
<tr>
<th>Category</th>
<th>Enrollment</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Secondary</td>
<td>2,140,756</td>
</tr>
<tr>
<td>II. Post Secondary</td>
<td>2,254,802</td>
</tr>
<tr>
<td>III. Adult</td>
<td>2,140,756</td>
</tr>
<tr>
<td>IV. Special Needs</td>
<td>2,054,001</td>
</tr>
<tr>
<td>V. Vocational Education Enrollments Act of 1963</td>
<td>1,234,388</td>
</tr>
<tr>
<td>VI. Vocational and Technical Education Enrollment</td>
<td>1,295,150</td>
</tr>
</tbody>
</table>
First-Time Fall Degree-Credit Enrollment in All Institutions of Higher Education, United States and Outlying Areas, 1957-1974

<table>
<thead>
<tr>
<th>Fall of Year</th>
<th>First-Time Enrollment</th>
<th>Year</th>
<th>No. of Four-Year Degrees Conferred</th>
<th>Degrees as a Percentage of First-Time Enrollment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1957</td>
<td>729,725</td>
<td>1960-61</td>
<td>365,337</td>
<td>50.1</td>
</tr>
<tr>
<td>1958</td>
<td>781,075</td>
<td>1961-62</td>
<td>382,822</td>
<td>49.0</td>
</tr>
<tr>
<td>1959</td>
<td>826,969</td>
<td>1962-63</td>
<td>410,421</td>
<td>49.6</td>
</tr>
<tr>
<td>1960</td>
<td>929,823</td>
<td>1963-64</td>
<td>460,467</td>
<td>49.5</td>
</tr>
<tr>
<td>1961</td>
<td>1,026,087</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1962</td>
<td>1,038,620</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1963</td>
<td>1,055,146</td>
<td></td>
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<tr>
<td>1964</td>
<td>1,234,806</td>
<td></td>
<td></td>
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</tr>
<tr>
<td><strong>Projected</strong></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>1965</td>
<td>1,456,000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1966</td>
<td>1,441,000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1967</td>
<td>1,451,000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1968</td>
<td>1,482,000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1969</td>
<td>1,540,000</td>
<td></td>
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</tr>
<tr>
<td>1970</td>
<td>1,627,000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1971</td>
<td>1,713,000</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>1972</td>
<td>1,790,000</td>
<td></td>
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<tr>
<td>1973</td>
<td>1,857,000</td>
<td></td>
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<tr>
<td>1974</td>
<td>1,926,000</td>
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</table>

1/ Source: OE Circulars on Opening Fall Enrollment and Degrees Conferred
2/ Source: Projections of Educational Statistics, Bulletin OE-10030-65, p.64
<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Smith-Hughes Acts</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
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<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Vocational Education and Training</td>
<td>717.5</td>
<td>717.5</td>
<td>717.5</td>
<td>717.5</td>
<td>717.5</td>
<td>717.5</td>
<td>717.5</td>
<td>717.5</td>
<td>717.5</td>
<td>717.5</td>
<td>717.5</td>
</tr>
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<td>Resettlement Grants</td>
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<td>0.0</td>
<td>0.0</td>
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<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
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</tr>
<tr>
<td>Grants to States</td>
<td>22.5</td>
<td>22.5</td>
<td>22.5</td>
<td>22.5</td>
<td>22.5</td>
<td>22.5</td>
<td>22.5</td>
<td>22.5</td>
<td>22.5</td>
<td>22.5</td>
<td>22.5</td>
</tr>
<tr>
<td>Total</td>
<td>740.0</td>
<td>740.0</td>
<td>740.0</td>
<td>740.0</td>
<td>740.0</td>
<td>740.0</td>
<td>740.0</td>
<td>740.0</td>
<td>740.0</td>
<td>740.0</td>
<td>740.0</td>
</tr>
</tbody>
</table>

**Note:** Figures are in millions.

**Source:** Vocational Education Act of 1963
<table>
<thead>
<tr>
<th>Occupational Category</th>
<th>Expenditures</th>
<th>Fiscal Year 1964</th>
<th>Fiscal Year 1965</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Federal</td>
<td>State and Local</td>
<td>Total</td>
</tr>
<tr>
<td>Agriculture</td>
<td>$13,719,186</td>
<td>$63,755,225</td>
<td>$77,474,411</td>
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<td>2,580,112</td>
<td>12,302,366</td>
<td>14,882,478</td>
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<tr>
<td>Fisheries</td>
<td>92,867</td>
<td>150,092</td>
<td>242,966</td>
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<tr>
<td>Health</td>
<td>4,760,405</td>
<td>7,696,333</td>
<td>12,456,738</td>
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<tr>
<td>Home Economics</td>
<td>8,874,010</td>
<td>80,998,222</td>
<td>89,872,232</td>
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<tr>
<td>Office</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Technical</td>
<td>13,596,803</td>
<td>21,310,109</td>
<td>34,906,912</td>
</tr>
<tr>
<td>Trade and Industry</td>
<td>11,403,492</td>
<td>91,545,885</td>
<td>102,949,377</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td>$55,026,875</td>
<td>$327,758,239</td>
<td>$332,785,114</td>
</tr>
<tr>
<td><strong>Percent of Total</strong></td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>23.3</td>
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<td>Agriculture</td>
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<td>Distribution and Marketing</td>
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<td>30.9</td>
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<tr>
<td>Technical</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Trade and Industry</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td></td>
<td></td>
<td>100.0</td>
</tr>
</tbody>
</table>
Facility Needs to Accommodate Projected Enrollments
Vocational and Technical Education

<table>
<thead>
<tr>
<th>Year</th>
<th>Enrollment</th>
<th>Enrollment Increased Over Previous Year</th>
<th>New Work Stations Needed</th>
<th>Estimated Costs 1/</th>
</tr>
</thead>
<tbody>
<tr>
<td>1964</td>
<td>4,566,393</td>
<td>864,218</td>
<td>288,073</td>
<td>$532,935,050</td>
</tr>
<tr>
<td>1965</td>
<td>5,430,611</td>
<td>358,909</td>
<td>119,636</td>
<td>221,326,600</td>
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<tr>
<td>1966</td>
<td>6,368,472</td>
<td>1,470,587</td>
<td>192,984</td>
<td>357,020,400</td>
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<tr>
<td>1967</td>
<td>7,323,742</td>
<td>955,270</td>
<td>318,423</td>
<td>589,082,550</td>
</tr>
<tr>
<td>1968</td>
<td>8,205,828</td>
<td>288,073</td>
<td>294,029</td>
<td>543,953,650</td>
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<tr>
<td>1969</td>
<td>9,676,415</td>
<td>1,470,587</td>
<td>490,196</td>
<td>906,862,600</td>
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<tr>
<td>1970</td>
<td>14,000,000</td>
<td>4,323,585</td>
<td>1,441,195</td>
<td>2,666,210,750</td>
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<tr>
<td>Totals</td>
<td>---</td>
<td>9,433,607</td>
<td>3,144,536</td>
<td>$5,817,391,000</td>
</tr>
</tbody>
</table>

1/ Work stations needed are calculated on the basis of each station serving three different students in classes operated--one in the morning, one in the afternoon, and one in the evening.

2/ Estimated costs for facilities are calculated by multiplying the number of new work stations needed by $1,850. Justification for the cost of $1,850 per student-work station is indicated as follows:

A sampling of 20 contracts for school construction accomplished in 1965 in several States reveals a median cost of $1,890 per pupil. Cost data are based on 1965 contract data published in the Engineering News Record. Costs per pupil ranged from a State average of $882 in Tennessee to $4,300 in Massachusetts. Average costs per square foot ranged from $11 in Kansas, to $25 in New York City and Hawaii. The norm was a little better than $20.

Previous projections when correlated with States' reported construction indicated average costs of $1,850 per pupil or per work station, and $20 per square foot. These costs were derived from an estimated total of $85+ million for constructing 1,978 classrooms, shops, and laboratories.