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ABSTRACT

The Industrial Arts Leadership Development Project was conducted to (1) provide inservice training for teachers to improve the quality of instruction and supervision; (2) provide inservice training for minorities and persons with limited English capability; and (3) provide leadership development for inservice teachers, service staff, and administrators. Thirty-five participants were selected through a combination of geographic, performance, and potential criteria. Following a needs assessment and pretest, participants attended eight seminars, including orientation, vocational education planning, funding skills, status of industrial arts, technology, concerns in industrial arts, special needs education, and interpersonal relationships. Following a posttest it was concluded that it would be advisable to develop a similar activity for industrial arts supervisors. In addition, it was concluded that the advisory council approach by the state's industrial arts teacher education institutions is of significant value and that a cooperative effort among the industrial arts profession, the colleges, and the state division of vocational education is essential to the success of personal development projects. It was also concluded that there are many needs in industrial arts which remain unaddressed. (Appendixes include the seminar content summaries, pretest and posttest instruments, needs assessment instrument, project evaluation instrument, project budget summary, and participant project evaluations). (LRA)

FINAL REPORT

OF

INDUSTRIAL ARTS LEADERSHIP DEVELOPMENT PROEJCT

1977-78

Montclair State College
Upper Montclair, New Jersey 07043
(201) 893-4165

Project Director
Michael J. Dyrenfurth, Ph.D.
Associate Professor of Industrial Education

This project reported herein was conducted pursuant to a contract from the New Jersey Department of Education, Division of Vocational Education. It was funded under Section 135 of Public Law 94-482.

Project Duration: October 1, 1977
Beginning Date

June 30, 1978
Ending Date

The Contractors undertaking this project were encouraged to express fully their judgments in professional and technical matters. Points of view or opinions do not, therefore, necessarily represent official funding agency positions or policies.

ABSTRACT

PROJECT TITLE: Industrial Arts Leadership Development Project

LEGAL NAME OF DISTRICT OR INSTITUTION: Montclair State College

ADDRESS: Upper Montclair, New Jersey 07043

PROJECT DIRECTOR: Michael J. Dyrenfurth, Ph.D., Associate Professor

TELEPHONE NUMBER: (201) 893-4161

FUNDED UNDER SECTION 135 OF P. L. 94-482 PROJECT BUDGET $5,243.63

DESCRIPTION OF PROJECT

This project addressed the New Jersey State Plan for Vocational Education priorities of: a) providing inservice training for vocational education teachers to improve the quality of instruction and supervision; b) providing minorities and persons with limited English capability the opportunity of inservice training for vocational education teachers to improve the quality of instruction and supervision; c) providing leadership development of inservice vocational education teachers, service staff, and administrators. In doing so it was developed to meet the leadership needs of the state's 3,200 industrial arts teachers. Specifically, the selected participants engaged in activities with the objective being:

1. To develop a cadre of leaders that will serve as an expanded nucleus for the industrial arts profession's thrust into the 1980's.
2. To identify potential newcomers to the leadership group in an effort to expand its present size to a minimum of 3% of the total industrial arts teacher population.
3. To develop a mechanism for infusing women, minority group members and persons with limited English capability into the cadre of leaders.
4. To develop a mechanism whereby the leader/participants are given an opportunity to communicate regularly, both among themselves and with other key groups (e.g., state department personnel, industry and community representatives and the like).

5. To increase the competencies of those identified/selected in the areas of: their knowledge of vocational [redacted] plans, laws, regulations, T and E procedures and public re[redacted] their knowledge of the status of industrial arts nationwide; the[redacted]ity to discern sex and minority bias/stereotyping; interpersonal [redacted]s; and identifying and assessing needed resources.

Participants were nominated by a wide variety of educational leaders. Subsequently the project advisory council selected thirty-five on a combination of geographic, performance, and potential criteria. These participants then underwent an extensive needs assessment and pre-test after which they attended a series of eight evening seminars over a five-month interval. Seminar topics were: 1) Orientation/Introduction; 2) Vocational Education Planning in New Jersey; 3) Funding Skills/Proposal Writing; 4) The Status of Industrial Arts: New Jersey and the Nation; 5) Technology: Today and Tomorrow; 6) Thorough and Efficient Concerns in Industrial Arts; 7) Special Needs Education and Industrial Arts; and 8) Interpersonal Relations: Strengthening Your Skills. National and instate consultants provided seminar instruction in conjunction with the leadership of specific advisory council members. The participants additionally each developed a major project of significance to their practice of industrial arts.

The evaluative results were very favorable both in terms of participant learning and their opinion of the experience. Analysis indicated the entire knowledge profile, as measured by pre- and post-testing, increased considerably. The majority of the participants expressed a desire to repeat a similar experience.

Project conclusions were: 1) that it would be advisable, and well received, to develop a similar activity specifically designed for industrial arts supervisors/department chairpersons; 2) that the advisory council approach of cooperative effort by the state's industrial arts teacher education institutions was of significant value; 3) that cooperative effort between the state's industrial arts profession (as represented by the Industrial Arts Education Association of New Jersey), the colleges, and the State Division of Vocational Education is essential to the success of professional personnel development projects; and 4) that there are many as of yet unaddressed needs faced by industrial arts as it gradually is becoming an integrated component of the state's vocational education delivery system.

Summary Report

The Second Industrial Arts Leadership Development Project

A SERIES OF

PROFESSIONAL DEVELOPMENT SEMINARS

Administered by

Montclair State College

Pursuant to a Grant from the
Division of Vocational Education
New Jersey Department of Education

Dr. William Wenzel
Assistant Commissioner of Education

Dr. Fred Burke
Commissioner of Education

Project Director

Michael J. Dyrenfurth, Ph.D.
Department of Industrial Education & Technology
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Upper Montclair, New Jersey 07043
Office: (201)893-4165/4161

INDUSTRIAL ARTS
LEADERSHIP DEVELOPMENT PROJECT

GRANT NO. SEPG 005

administered by

MONTCLAIR STATE COLLEGE

Dr. David W. Dickson, President
Montclair State College

Dr. H. T. Elam, Dean
Mr. Michael Puglisi, Associate Dean
School of Professional Arts & Sciences

Dr. George Olsen, Chairman
Dr. Michael Dyrenfurth, Associate Professor
Department of Industrial Education
& Technology

STATE OF NEW JERSEY

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Mr. Thomas McNulty, Bureau Director . . . . . Bureau of Special Services

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Dr. John Cummings, Director, Professional Development and Project Monitor . . . NJDVE

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Industrial Arts Education
New Jersey Department of Education

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Dr. Edward White, Jr., Chairman
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Eugene Compton
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John Ziemba
Toms River High School North

-- ACKNOWLEDGEMENTS --

Professional development is, and always will remain, a major responsibility of the members of any profession. Industrial Arts is not an exception. Its practitioners must not only assume such responsibility but they must do so with initiative, imagination, and enthusiasm. To do any less would be to condone mediocrity and to drastically shortchange the ideals and objectives of our profession. Developing technological literacy is simply too complex and important an objective to delegate to a moribund faculty.

Fortunately, New Jersey may be justly proud of the dedication of its professional leadership as represented by this project's Advisory Council members. Their willingness to commit considerable effort towards the goal of professional development was exemplary. The six council members; Stanley Grajewski, Ronald Hanisch, Russell Kruppa, Robert Nogueira, Vance Snyder, and Edward White; were instrumental to the success of this project. Clearly their input--representative of state administration, teacher education, supervisor/department chairperson, and teacher association (Industrial Arts Education Association of New Jersey)--provided useful guidance and provocative stimuli resulting in increased levels of performance. Without such a broad cross section of ideas and such a tremendous willingness to provide assistance and to arrange for the necessary facilities, this project would have fallen far short of its mark.

Significant commendation is also due the New Jersey Department of Education's Division of Vocational Education. As a direct result of its enlightened leadership, the Division's administrative team, as assembled by Dr. William Wenzel, was largely responsible for the straightforward incorporation of Industrial Arts into the State Plan for Vocational Education. Particularly appreciated was the Division's position that Industrial Arts represents an important program that need not change its goals in order to contribute to the overall objectives of the generic vocational field.

The cooperation of Montclair State College in sponsoring this activity represents a contribution of in-kind resources and effort that must also be acknowledged. In particular, this project would have been an impossibility but for the efforts of Dean Elam and Dean Puglisi (School of Professional Arts and Sciences) and more directly my colleague and chairman, Dr. George Olsen (Department of Industrial Education and Technology).

Recognition is also due the Project Consultants who shared their considerable expertise with us. The drive and enthusiasm, not to mention the legislative insight, that characterized Jim Good (President Elect, American Industrial Arts Association) launched the seminar series with contagious zeal. As President of the AIAA, Dr. Willis Ray's perceptive insights as to the state of our profession and his well-reasoned exposition of the need for professional commitment made a lasting impression and instilled a conviction not to fail him or our charges! With equal impact, Dr. David Mohan (Kent State University), shared a powerful and cogent rationale for the development of technological literacy through the vehicle of contemporary Industrial Arts programs.

The in-state consultants deserve similar commendation. The contribution of Dr. John Cummings (New Jersey Division of Vocational Education), Dr. Stephen Hritz (Trenton State College), Mr. Richard Politi (State Department of Education), and Dr. Catherine Norris (Montclair State College), in developing participant competencies in the respective areas of proposal writing, special education, and interpersonal communications were appreciatively received by all. The consultants' willingness to share information and the openness with which they approached this task represented an attitude and professional demeanor that inspired all project participants. Additionally, the support services of Robert Clifford, the project assistant, and the many others who provided assistance along the way, need to be lauded. Together, all involved contributed with a degree of commitment that can only be described as exemplary!

Of course, for these acknowledgements to be deserving of their name, the greatest accolades must be reserved for those participants who involved themselves so fully in this leadership project. Their perseverance in attending widely dispersed seminars during an already crowded professional calendar, despite weather and professional loads, represents an inspiration for the 3,200 Industrial Arts teachers of New Jersey.

To Dr. Wenzel and his staff, to the Administration at Montclair State College, to my colleagues on the Project Advisory Council, to the consultants who shared so much with us, and most importantly of all, to the participants so willing to give of themselves, this author wishes to express his sincere gratitude. Together, through all of your efforts you have contributed to the quality of the profession in New Jersey. Your demonstration of involvement represents a benchmark in professionalism!

Appreciatively,

Michael Dyrenfurth

Michael J. Dyrenfurth

At the time of this project, Dr. Dyrenfurth was a faculty member of the Department of Industrial Education and Technology at Montclair State College, New Jersey. Currently he serves as Associate Professor of Industrial Education within the Department of Practical Arts and Vocational-Technical Education, at the University of Missouri-Columbia.

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-- PROJECT DESCRIPTION --

The Problem

The State of New Jersey currently employs over 3,200 industrial arts teachers. The Bureau of Teacher Education and Academic Credentials reports that industrial arts is one of the few fields wherein teachers are still permitted eligibility for emergency/provisional or less than standard certification. Appendix A provides an overview of this data. New Jersey's teachers are functioning in a highly stressed educational environment that is typified by seemingly universal retrenchment of both equipment and supply budgets, faculty, support, and more importantly of curriculum offerings. The latter is perhaps even an unintended consequence of the interaction between a nobly intentioned compensatory education program and a floundering of the teachers' administration which is further compounded by the throes of the implementation of Thorough and Efficient education as mandated by the State.

Contributing to this situation is the new law (Education Amendments of 1976, PL 94-482) and its effects on the vocational education arena. Since industrial arts is now clearly designated as an acceptable program, provided it addresses one or more of the goals in the act, both the teachers and their chairpersons/supervisors need to become more conversant with the vocational education planning cycle. Also of paramount importance is a need to develop effective familiarity with existing and forthcoming quality control mechanisms as built into vocational education's delivery and administrative systems.

These aforementioned needs are recognized by the New Jersey State Department of Education's Division of Vocational Education in their 1977-78 State Plan for Vocational Education (p. 93). Here, industrial arts is for the first time incorporated in a significant programmatic manner (pp. 93, 96-97, 116-117). The need for systematic program implementation, evaluation and modification is also stressed in this state plan. The program described in this report clearly addressed itself to these needs by means of a leadership development seminar approach as is called for on pages 94 and 95 of the State Plan (also objective 3b, p. 112; objective 8, p. 124; objective 11, p. 126; objective 16, p. 128). Consequently the described activity was an integral part of the State's overall personnel development plan, and one that significantly addressed the urgent need for leadership and direction for the State's 3,200 industrial arts instructors and their 320,000 pupils. Only with a systematic effort such as this can industrial arts, as a newcomer to the vocational family, become an integral contributor to the achievement of the overall objectives for education in New Jersey.

The project described addressed New Jersey's priorities of:

A. Providing inservice training for vocational education teachers to improve the quality of instruction and supervision.

B. To provide minorities and persons with limited English capability the opportunity of inservice training for vocational education teachers to improve the quality of instruction and supervision.

Q. To provide leadership development of inservice vocational education teachers, service staff, and administrators.

Specific Objectives Addressed

1. To develop a cadre of leaders that will serve as an expanded nucleus for the industrial arts profession's thrust into the 1980's.

2. To identify potential newcomers to the leadership group in an effort to expand its present size to a minimum of 3% of the total industrial arts teacher population.

3. To develop a mechanism for infusing women, minority group members and persons with limited English capability into the cadre of leaders.

4. To develop a mechanism whereby the leader/participants are given an opportunity to communicate regularly, both among themselves and with other key groups (e.g., state department personnel, industry and community representatives and the like).

5. To increase the competencies of those identified and selected in the areas of:

   A. Their knowledge of the state's vocational education planning cycle.

   B. Their knowledge of the status of industrial arts and vocational education in New Jersey.

   C. Their knowledge of federal laws and regulations relevant to industrial arts and vocational education in New Jersey.

   D. Their knowledge of the evaluation and accountability mechanisms incorporated into vocational education and T & E.

   E. Their ability to deal with minorities and with persons of limited English speaking ability.

   F. Their ability to discern sex bias/stereotyping and to developing plans of action to eliminate it.

   G. Their ability to develop evaluation systems ranging from needs assessment through formative in-process measures, to formal and informal outcome or summative measures.

   H. Developing and disseminating public and professional information through a variety of media/vehicles.

   I. Interpersonal skills and human relations.

   J. Identifying and assessing resources necessary to achieve the aforementioned objectives.

Project Procedures

Project events may be categorized into four components: (1) participant identification and selection, (2) the actual leadership development seminars, (3) formative and summative evaluation, and (4) long-range follow-up. Events 1-3 lasted throughout the 1977-78 school year with the follow-up to be conducted at the end of the subsequent year.

Identification and Selection of Participants

Identification procedures included a descriptive mailing, complete with nomination forms (Appendix B), to all superintendents with industrial arts departments, in the state. In addition, each county career coordinator and Educational Improvement Center director received a candidate nomination form. Women, minority group representatives and candidates with limited English speaking capabilities were encouraged with the equal opportunity designation. Formal publications procedures such as Interact, the Vocational Education Newsletter and the Industrial Arts Education Association Newsletter were not used due to the late award of funds. Announcements at professional meetings throughout the state were used when possible.

From those nominated, participants were selected based on the Advisory Council's consideration of the criteria of: (1) previous involvement in professional activities, (2) indications of local need and desire, (3) indication of local support, (4) representation of minority groups and persons with limited English speaking capability, (5) representation countering sex stereotyping, (6) stage of professional development, and (7) representation of teacher, chairperson and supervisor positions. The thirty-five participants finally selected included representatives selected on the basis of each criterion. The resulting diversity undoubtedly was a major factor in the success of the project.

Leadership Development Seminars

The vehicle used by this project was a five-month, graduate credit bearing (3 shs. tuition-waived) professional development seminar. As such, it incorporated eight formally scheduled, three hour, sessions distributed throughout the year. In addition, thirty hours of individual field activities and/or assignments complemented the group sessions. This course (curriculum proposal supplied in Appendix C), bearing the same name as the project, was advanced and subsequently approved, as an experimental graduate offering at the 599 level. While only the approval of the Vice President for Academic Affairs was necessary to obtain experimental status, the course description was also submitted to the normal curriculum approval committees (albeit somewhat out of phase with their normal operating timelines). All groups did however support the course fully.

A pretest (Appendix D), was used to determine participant entry level status with respect to overall project goals. In addition, a separate needs assessment (Appendix E) was conducted. Subsequently, participants were encouraged to develop specifically useful projects/activities to meet their individual and local needs. Using a project proposal form, each participant then contracted for this component of the overall seminar.

Participants attended group seminars with sessions ranging from information presentation and issue identification/discussion to human relations exercises, role playing and case study of the dynamics of moving a profession and its practice forward. A binder and considerable amounts of instructional material (as listed in Appendix F) was distributed to all participants and the Advisory Council. Sessions were conducted by the project director, project consultants, project Advisory Council members, and resource people/officials from the State Department of Education. Sessions were held throughout the state at appropriate locations.

Specifically, the eight seminars (Figure 1 provides individual details) systematically addressed both individually and collectively, each project objective. An overview of the content reveals the following topics:

- T and E laws, regulations and the appropriate evaluation/assessment techniques
- Information sources/retrieval
- Vocational education planning cycle
- Strengthening communications skills and conducting effective formal/informal presentations
- Fostering community liaisons
- Status of industrial arts/vocational education in New Jersey
- Federal/state laws and regulations applicable to vocational/industrial arts education
- Schedule of state events
- Perceptions relevant to minority/sex stereotyping/biases
- Professional activities/relationships
- Administrative/supervisory procedures
- Interpersonal skills
- Special needs education
- Proposal and grant writing

Project Evaluation

Summative evaluation included pretest-posttest (posttest provided in Appendix G) difference scores with respect to the cognitive/information aspects of the project. In addition participants were observed in terms of their activites throughout the year (e.g., presentations to school boards, advisory councils, formulation of a master plan and the like). An attitudinal scale also provided participant feedback as to the overall project effectiveness (see Appendix H). A future long-range report will include each participant's direct supervisor's opinions with respect to the participant's attitudes and activities. Although beyond the submission date for this final report, the follow-up of each participant and his/her progress towards achievement of the initially developed professional growth plan will also be conducted. These results will be reported as a separate addendum to this official final project report.

Figure 1: Seminar Schedule and Details

Date/Location	Agenda	Consultant
Session 1: February 21, 1978 Trenton State College	Orientation/Introduction 1. Project staff introduction 2. Goal description and delineation 3. Overview of procedures/sessions 4. Advisory Council role 5. Registration (college) 6. Participant introductions 7. Scheduling of events 8. Available resources 9. Needs assessment	None
Session 2: March 16, 1978 Red Bank Regional High School	Vocational Education Planning in New Jersey 1. Key legislation/regulations/policy 2. State Plan for Vocational Education 3. Advocacy: Hearings, testimony, position statements 4. The role of professional associations 5. Professional memberships/activities 6. Resources	Mr. James Good President Elect American Industrial Arts Association
Session 3: March 27, 1978 Kean College of New Jersey	Funding Skills/Proposal Writing 1. National and state overviews 2. Federal regulations and publications 3. Sources of funds 4. Samples of successful proposals 5. Suggestions on writing proposals 6. The next step: Planning for 78-79	Dr. John Cummings Director, Personnel Development Division of Vocational Education
Session 4: April 7, 1978 Great Gorge, New Jersey	The Status of Industrial Arts: New Jersey and the Nation 1. A national perspective 2. Philosophy and goals: State and national approaches 3. New Jersey Industrial Arts details 4. Public relations: Community and in-school	Dr. Willis Ray President American Industrial Arts Association
Session 5: April 26, 1978 Glassboro State College	Technology: Today and Tomorrow 1. Industrial Arts' role in developing technological literacy 2. The future and future studies: How does Industrial Arts fit? 3. The basic skills thrust: Where does Industrial Arts fit? 4. Adolescent Study Commission Report	Dr. David Mohan Associate Professor Kent State University Ohio
Session 6: May 9, 1978 State Department of Education	Thorough and Efficient Concerns in Industrial Arts 1. State Department of Education 2. Division of Vocational Education organization and roles 3. Education Improvement Center roles 4. The planning process 5. Goals, objectives, and indicators 6. Accountability: Who, what, when, why? 7. Budget planning: Program oriented budgets	Mr. Harold Seltzer Deputy Assistant Commissioner of Education Division of Vocational Education
Session 7: May 25, 1978 New Jersey Occupational Resource Center	Special Needs Education and Industrial Arts 1. New laws and the State Plan for the Education of the Handicapped 2. New Jersey implementations, State Plan for the Handicapped 3. Mainstreaming and Industrial Arts diagnostics 4. Teaching materials and programs 5. IEPs 6. Resource information	Dr. Stephen Hritz Associate Professor Special Education Trenton State College Mr. Richard Politi Child Study Supervisor Burlington County
Session 8: June 5, 1978 Montclair State College	Interpersonal Relations: Strengthening Your Skills 1. Your professional development 2. Communication workshop 3. Leadership: Can you do anything about it? 4. Stereotyping: Sexual, racial, subject 5. Motivation: Personal and others	Dr. Catherine Norris Assistant Professor Montclair State College

Formative evaluation was facilitated by the project's extended time frame and the opportunity for interaction it provided. During every group session, together with the project Advisory Council, participants were provided with time to review his/her own progress and questions. Group session agendas and/or individual projects were revised as necessary in order to achieve all objectives.

Management Plan

All major project events are depicted in Figure 2. Key dates are provided as are the relationships among the major elements comprising the ongoing seminar. As required by New Jersey and Federal regulations, all necessary assurances were provided. In addition, all project accounting was conducted by Montclair State College's Business Office in accordance with established state procedures. Only the project director was permitted to authorize funds. Decisions were reviewed by the project's Advisory Council. A final fiscal report is included in the seminar's final report to the Division of Vocational Education (see Appendix I, Budget Summary).

Sex Bias/Destereotyping Provisions

Participants were specifically solicited and selected to represent both male and female professionals in the field. Consultants were selected on the basis of recognized credentials and on the Advisory Council's assessment of their ability to serve the objectives of the seminar. While attempts were made to secure the services of minority and/or female consultants to meet the role model needs of such participants, the project director succeeded only to the extent of contracting a female consultant. However, contrary to stereotyped practice, a male secretarial assistant was employed.

Institutional Commitment/Capability

Provisions of office space, access to resources, basic instructional support systems and the budgeting and accounting services were provided by the sponsoring institution (Montclair State College). Each cooperating institution (Trenton State College, Kean College of New Jersey, Glassboro State College) also made their classroom facilities available for meetings as required.

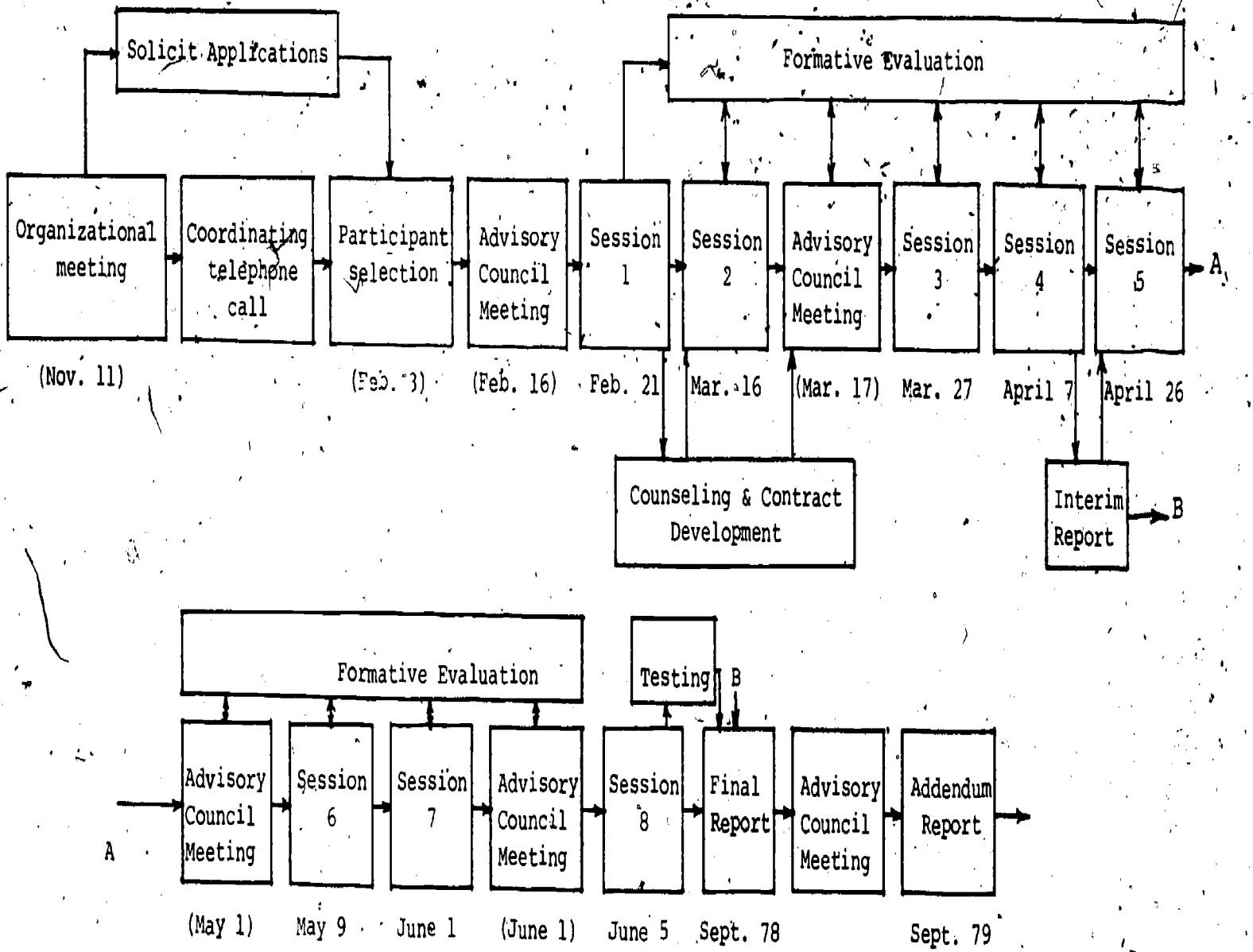


Figure 2: Industrial Arts Leadership Development Seminar Schedule of Events

-- SEMINAR CONTENT SUMMARIES --

The following sections of this report represent summarized transcripts of recordings made during each seminar. While some editing was done, care was paid to avoid changing the intent. Additionally the reader should note that the first page of the summary for each session contains, at the bottom, identification as to session consultant(s), organizer, attendance, and location.

Seminar 1: Registration, Orientation and Introduction

Seminar 2: Vocational Education Legislation and Planning

Seminar 3: Proposal Writing/Funding Possibilities

Seminar 4: The Status of Industrial Arts

Seminar 5: Industrial Arts and Technological Literacy

Seminar 6: Thorough and Efficient Education

Seminar 7: Industrial Arts and Special Needs Education

Seminar 8: Communications and Interpersonal Relations

Seminar 1: Registration, Orientation and Introduction

1. Course Registration
2. Overview of Seminar
   a. Description of goals
   b. Explanation of selection mechanisms
   c. Outline of key events
3. Introduction of Advisory Council Members
4. Participant Introductions
5. Administration of Needs Assessment Instrument
6. Pretest of Relevant Industrial Arts Knowledge
7. Individual Project Specifications/Discussion
8. Orientation to Industrial Education Programs and Definitions
   a. The generic nature of industrial education
   b. Alternative names for the inclusive term, industrial education, such as occupational education or vocational education
   c. Programs subsumed by the generic term:
      i. industrial arts
      ii. technical education
      iii. technology for children/elementary school industrial arts
      iv. industrial technology
      v. vocational education
   d. Program goals for each subsumed program
   e. The societal need upon which each program's existence is based

SEMINAR DETAILS

SESSION LEADER

Michael J. Dyrenfurth, Ph.D.
Project Director & Associate Professor
Department of Industrial Education & Technology
Montclair State College
Upper Montclair, New Jersey 07043

DATE: February 21, 1978

SITE: Trenton State College
Trenton, New Jersey

PARTICIPANTS AND GUESTS: 32

Seminar 2: Vocational Education Legislation and Planning

1. For the proper insight into this presentation, refer to the following documents:

   a. "Legislative Update," M/S/T

   b. Discussion draft versions of the AVA IA Division's Position Papers

   c. The AIAA's "Blue Book"

2. Membership in, and active support of, your key national associations, AIAA and AVA's IA Division, is crucial in today's climate.

3. The legislative history relevant to Industrial Arts is largely dependent upon, and is a result of, the efforts of the IA Division's (AVA) and AIAA's legislative committees, acting in concert to achieve legislative goals. This began slowly with the 1963 Amendments. At the start there were many conflicting messages so Congress omitted Industrial Arts from the act. Later just prior to the 1968 Amendments, the AVA and the AIAA began building their case but again they were not successful. It was not until the 1972 Amendments that Industrial Arts succeeded in having a statement incorporated into the law. It referred to the permissibility of funding Industrial Arts if the Commissioner determined, by regulation, that it fulfilled one or more purposes of the law.

4. Our profession then ran into difficulty because our definition of Industrial Arts was weak and imprecise.

5. From 1972 to 1976 an effectively coordinated AVA-AIAA legislative effort pursued proper incorporation of Industrial Arts in the impending legislation. The result of this cohesive effort was that Industrial Arts emerged as the only subject area that was included by definition and it was the only subject area that had a line item in the basic grant funding section of PL 94-482 (which provides for 80% of state Vocational Education funding).

SEMINAR DETAILS

SESSION LEADER
Robert M. Nogueira, Chairman
Department of Vocational Technical & Practical Arts Education
Red Bank Regional High School District
Little Silver, New Jersey 07739

James E. Good; President-Elect, AIAA
Supervisor, Vocational Technical Education
Greece Central School District
North Greece, New York 14515

DATE: March 16, 1978

SITE: Red Bank Regional High School
Little Silver, New Jersey

PARTICIPANTS AND GUESTS: 31

6. Now, our work with the regulatory commission began, in this case, with the U. S. Office of Education. The crucial regulations emerged October 3, 1977 and they provided key information and procedures necessary for states to qualify for, and be in compliance with, federal vocational funds and requirements. The M/S/T "Legislative Update" article provides a concise summary of these matters.

7. Once the regulation effort relaxed, we began working towards increased appropriations so that Vocational Education could more effectively meet the challenges of its mandates.

8. Legislative involvement, such as described, needs to be extended to state and grass roots levels. State leaders and associations must just as effectively work towards systematic incorporations of Industrial Arts into annual and five-year phases for Vocational Education.

9. To accomplish this, you must exercise your prerogatives as provided by law.

   a. Have your advisory council review industrial arts

   b. Deliberately provide input to the group formulating the state plan for vocational education

   c. Analyze the existing plans and its implications for industrial arts

   d. If the severity of the problem warrants it, use the due process provisions to formally point out and document the difficulties as seen by your profession

10. Assistance in the task of seeking significant incorporation of Industrial Arts into your state plan may be drawn from the definition of Industrial Arts as provided in the law (PL 94-482). Note that it refers to "all aspects of industry and technology" and that it also refers to learning experiences, within a hands-on environment, that assist students:

    a. To make informed and meaningful occupations decisions and/or,

    b. Which prepare them for entering into advanced vocational or technical training programs

11. In your state efforts, work towards:

    a. The opportunity to finance the mainstream core of our programs

    b. Providing the opportunity to offer inservice training for our teachers

    c. The opportunity of increasing the leadership at state and local levels

    d. The chance of developing innovative curriculum programs

    e. The upgrading of existing curriculum materials

f. Serving more effectively the needs of exceptional children

g. More support of our efforts against sexual bias and stereotyping

h. Support for the leadership, organization, and implementation of the Industrial Arts student organization (AIASA)

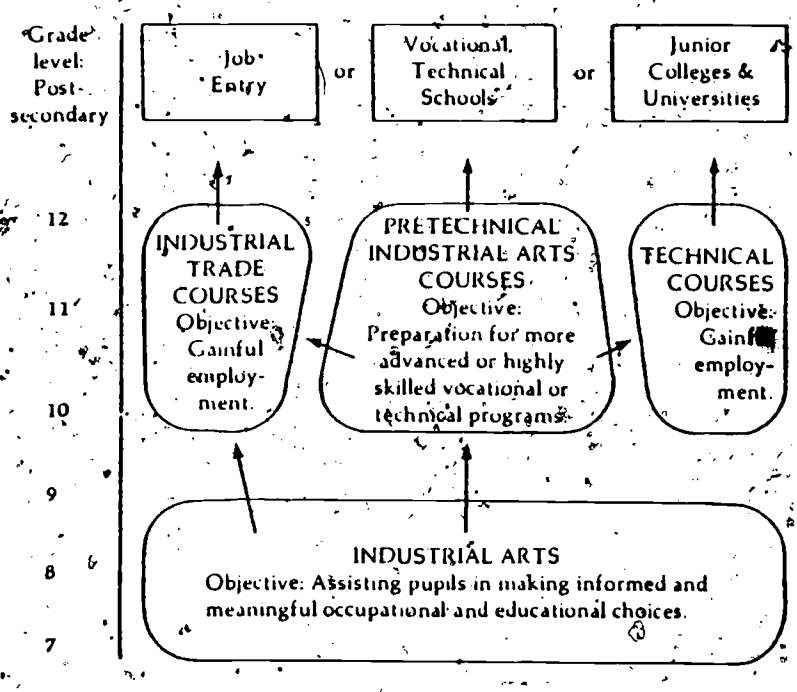
12. Throughout these efforts, note that it is not federal money that will make or break our programs? Rather, public support, the local money is what we need to survive. The federal money will get you started, it will seed some initial efforts, but only local support will sustain you!

13. In a similar manner to the approach previously outlined, Industrial Arts has made its presence felt, through the auspices of its two national legislative committees, during the deliberations on ESEA and Career Education.

14. Now, what have we told people about Industrial Arts? The following will serve to share these points with you.

15. General description of chart from AIAA "Blue Book" as provided below:

RELATIONSHIPS BETWEEN INDUSTRIAL ARTS, TECHNICAL AND INDUSTRIAL VOCATIONAL COURSES IN COMPREHENSIVE VOCATIONAL EDUCATION



Note: Objectives shown above refer only to the three objectives of the Vocational Education Act.

16. The key features of Industrial Arts are that it is a program that provides a systematic, sequential, articulated set of experiences, from K-12, geared to the study of American industry.

17. Specifically, the K-6 or elementary experiences seek to promote awareness and to expose children to the tools, machines, materials and processes of American industry.

18. Middle school--or junior high programs--target on orientation to the four major clusters of: manufacturing, construction, transportation, and communication. Now it is important to note that comprehensiveness of scope is crucial at this level.

19. Exploration becomes the focus of the secondary level (circa grades 8, 9, 10). This experience is designed to give students the opportunity to refine his/her decision making power in terms of which cluster or clusters are of most interest for exploration in greater depth or breadth.

20. The next level, often called prespecialization, enables students, within the confines of a comprehensive educational setting, to develop to the level and maturity that they are capable of in terms of their knowledge, skills, interests and desires related to the four basic technological clusters.

21. Now the key is to develop such an articulated system K-12, and to do so in concert with the existing vocational education system. We must not allow ourselves to be relegated to serve as merely a junior high school feeder to high school vocational programs.

The Planning Process

1. The state plan must be approved by the U. S. Office of Education before any Vocational Education programs in New Jersey receive federal funding.

2. This plan is put together by a committee, constituted as per the law (PL 94-482).

3. The planning committee is generally representative of New Jersey and it is open for inputs either directly or via the member most representative of your aspect of the profession. The committee also works with key people from the Division of Vocational Education.

4. Subsequently, the draft plan is proposed by the planning committee, is brought before the public at the mandated public hearings. Comments are made, issues raised, problems and strengths are identified at these public hearings.

5. Then, the Division revises its plan as appropriate and it requests approval of it by:

   a. The New Jersey Advisory Council on Vocational Education

   b. The New Jersey State Board of Education

   c. The Bureau of Occupational and Adult Education in Washington

6. When approved, the Division disseminates the plan through each county career coordinator.

7. These county coordinators are the Divison's prime communications vehicle with local districts and such they represent a useful resource to you.

8. With respect to dollars, there are two sections of the law (PL 94-482): A basic grants section and one for support services.

9. Essentially New Jersey divides by formula its basic grant money among each of the 21 counties.

10. Each county has a County Coordinating Council for Career Education of representative people, appointed by the New Jersey Commissioner of Education, which establishes a matrix of dollars, programs, and groups served that defines how the state vocational education funds are to be expended.

11. County councils are composed to represent: principals, Department of Labor, comprehensive high schools, the vocational education community, the business community, and the superintendents.

12. Support services dollars are available through a competitive proposal process. The RFP (Request for Proposal) book outlines application procedures and details. Funds are awarded in the categories of:

    a. Industrial Arts

    b. Sex Equity

    c. Curriculum Development

    d. Personnel Development

    e. Research

    f. Guidance and Counseling

    g. Exemplary and innovative programs

    h. Energy Education

Group Discussion Guided by Robert Nogueira

1. Typically, our profession must provide input to the state planning process at every opportunity. Examples of such input opportunities include, state plan hearings, Section 107 (Planning Group) committee meetings, Division of Vocational Education position paper projects, state guide development efforts and the like.

2. What about the leadership question? Why have things changed for Industrial Arts? Look at the career ladders in our profession. Where does advancement typically lead? Examples:

   a. Your present assistant commissioner is an Industrial Arts graduate of Trenton State College

   b. Your deputy assistant commissioner is an Industrial Arts graduate of Millersville

   c. The director of the Center for Occupational Education, at Jersey City State College, has Industrial Arts roots

   Because we are based in the schools, the career ladder leads to a supervisor's job, a teacher education job, or a vocational education job. A lot of good Industrial Arts people make the transition to vocational education because of a lack of career ladder opportunities within Industrial Arts.

3. What does Washington see? The Carter transition team reviewed the current situation and, from their perspective, indicated low confidence in vocational education.

4. Washington, in attempting to solve the nation's problems, invested in the Department of Labor, via PL 95-93, the Youth Employment Demonstration Projects Act (YEDPA). Note the relative scale: while vocational education worked with approximately 600 million dollars, YEDPA in nine months had 1 billion dollars!

5. The public school may very well see develop around it, another system that serves the children that we have not been able to accommodate, the 14-, 15-, and 16-year-old who is out of school and out of work.

6. How can Industrial Arts and YEDPA work together? Community-based career education provides one such avenue. YEDPA can also support equipment in your facility--if you deal with not vocational education, they are calling it employability education. They are talking about attitude.

7. In Bergen County, eight high schools have established complete laboratories with YEDPA funds.

8. Each school district has a copy of the State Plan for Vocational Education. Note that this plan mentions the hearings conducted on this plan. These represent a useful opportunity for constructive input.

9. Our profession, through its advocacy efforts, establishes its credibility. The more credible we are the more effective will be our programs. The reverse linkage is also vital!

Seminar 3: Proposal Writing/Funding Possibilities

1. In proposal writing, one must be prepared to both succeed and fail. Seldom does one hit on all submissions.

2. The length of a proposal is not crucial provided it is not too long. Major attention and careful treatment must be focused on each evaluation criterion that will be applied to the proposal. These will be supplied with the application package.

3. Another key point in proposal writing is the one of time lines. You must consider the time necessary for your board and/or other governing authorities to review, revise if necessary, and then approve your proposal. The taller your bureaucratic structure the longer it will take.

4. When seeking approval, one would typically follow the normal chain of command unless a separate mechanism or standard policy is specifically established.

5. The review that your proposal gets is dependent upon the criteria that are applied and the extent to which your proposal meets these. Proposals should also be keyed to the state plan and the objectives listed therein. This point is important because the vocational planners are cognizant of their objectives and the activities that are keyed to them. If you can demonstrate that your proposal helps them meet their objectives, as well as meeting yours, you will have strengthened the funding probability of your proposal.

6. With respect to proposal announcements, practitioners in the field cannot wait to have such announcements brought to their attention, they must search out these items of information from knowledgeable sources accessible to them.

7. Furthermore, good proposal writers learn to write their needs into proposals submitted for some funding programs that at final glance do not seem to be related too directly to the original needs.

SEMINAR DETAILS

SESSION LEADER
Ronald M. Hanisch, Chairman
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Monmouth Regional High School
Tinton Falls, New Jersey 07724

DATE: March 27, 1978
PARTICIPANTS AND GUESTS: 41

Dr. John M. Cummings, Director
Personnel Development
Division of Vocational Education
New Jersey State Department of Education
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SITE: Kean College of New Jersey
Union, New Jersey

8. We use a process of outside professional readers, not on the Division staff.

9. We try not to fund more than one proposal to a person.

10. We use a checklist to rate each proposal 1-5 on each criterion. In addition, the reader has to write a narrative statement as well.

11. We try to make our negotiations and discussions with possible grant recipients as constructive and helpful as possible.

12. Industrial arts is fundable as itself for equipment. Additionally, it is eligible for support as it interfaces with the other categories of support funding, e.g., curriculum development, personnel development, or research.

13. Projects are monitored by means of a mid-term interim report and by project monitor visits.

14. Participant identification of previous proposal efforts related to Industrial Arts descriptions and approaches were outlined.

15. Question and answer session on proposals: Nogueira, Dyrenfurth, and Cummings responding.

16. Proposal RFP and funding source information:

    a. Industry funds, see the Foundations Handbook, the Grants Register, and the Annual Register of Grant Support which are typically available at your closest college library or grants person.

    b. Government grants are available from a wide range of departments. Education practitioners should not fall into the trap of assuming their only opportunities come from Health, Education and Welfare. The Catalog of Federal Domestic Assistance is the basic tool for such searches.

    c. The New Jersey Bureau of Grants Management offers helpful services by indexing key programs and identifying knowledgeable contact persons with whom one can discuss proposal ideas.

    d. The New Jersey State Department of Education provides a Mini-grant program with simplified application procedures geared to teacher-practitioners.

Proposal Details: Discussion lead by Michael Dyrenfurth

1. Solicitation of grants/funding from non-government (private and commercial) organizations typically involves the sequence of:
   a. Reconnaissance
   b. Identification of likely target
   c. Preliminary exploratory contact
   d. Proposal development/writing
   e. Making proposal salable/sizzle
   f. Critiques and revisions
   g. Submission
   h. Waiting
2. Typical proposal elements include:
   a. Cover forms
   b. Assurances (of compliance)
   c. An abstract
   d. Problem and/or rationale statement
   e. List of objectives
   f. Statement of significance
   g. Review of literature
   h. Description of procedure/operational plan
   i. Identification of major outputs/outcomes
   j. Dissemination mechanisms
   k. Evaluation procedures
   l. Budget
   m. Administrative controls/management plan
   n. Facilities/institutional commitment
   o. Personnel
   p. Support documents

3. Proposal writing can be improved by (ideas adapted from Hill, Grant Writing Made Easy):

   a. Writing in the third person

   b. Selecting an appropriate catchy title

   c. Using spacing, underlining, sub-headings to emphasize key points

   d. Use short sentences

   e. Try to limit commas to two per sentence

   f. Say one thing at a time

   g. Keep paragraphs short and tightly organized on related points

   h. Use quick openers to catch the attention

   i. Avoid having anything in the first two paragraphs/pages that could be argued with

   j. Arrange points/arguments/cases in order of decreasing importance

   k. Accentuate the positive; emphasize opportunities and avoid negatives

   l. Avoid "iffy" or hopeful statements

   m. If you have difficulty getting started, begin by drafting a budget; dollars will help you get on track!

   n. KISS: keep it short and simple

4. Problem statements/lead-ins

   a. Convince reviewer that the project is important

   b. Accomplish this quickly

   c. Avoid grandiose or general (weasel wording)

   d. Include summarizing statement

   e. Identify and define unusual terms

   f. Demonstrate multiplier effect/spin-off benefits/implications beyond local picture

5. Rationale/Review

   a. Select a few significant studies to provide a foundation

   b. Identify the project's contributions to the field

   c. Use current literature and summarize it

   d. Avoid using too many references and doing too little with each

   e. NEVER state that "no relevant research exists"

6. Objectives

   a. List specific objectives that are achievable and measurable/observable

   b. Relate objectives to problem

   c. Refer directly to all objectives in the procedures and vice versa

   d. Don't be vague

7. Procedure

   a. This is usually the most carefully read section

   b. Use common, operational terms

   c. Identify necessary experimental elements

      - sample
      - design
      - data collection
      - analysis
      - time line
      - outcomes

8. Personnel

   a. Identify each person's competencies specifically in respect to the proposed project

   b. Use people's names only with permission

   c. Identification (rather than reference to: will be identified/hired) of principal investigator can enhance the proposal by associating an established reputation and capability with the project

   d. Avoid administration by committee

9. Facilities/Resources

   a. Identify special supporting facilities

   b. Identify cooperating agencies and document this with letters of endorsement

10. Budget

   a. Is an operational statement of the project's activities in terms of dollars

   b. Rationales for each major line item should be easily substantiated

   c. Include all support staff

   d. Include fringe benefits (for personnel)

   e. Include indirect and/or overhead costs

   f. Provide for all special concerns: travel, per diem, reports, follow-ups, consultants, etc.

   g. Typically each item of equipment must be specifically justified

11. Abstract

   a. A very critical part of the proposal

   b. Written <u>after</u> proposal is complete

   c. Use key words as per the RFP and funding agency guidelines

   d. Paraphrase grant project objectives

   e. Have a colleague critique it to determine if the abstract conveys the thoughts you wish it to

Seminar 4: The Status of Industrial Arts

1. The purpose of this presentation is to present an overview of the status of Industrial Arts in this nation.

2. Our condition may be described in terms of nine characteristics:

   a. The nature of the profession itself

   b. The status of teachers

   c. The status of programs

   d. The status of supervision, state and local

   e. The status of teacher education

   f. The status of our financial support

   g. The status of student groups

   h. The status of state associations

   i. The status of national associations

3. As a profession, we are reaching fairly good status. We are perceived as useful and are accepted as full partners of the school effort.

4. Industrial Arts teachers are typically well prepared. They have good qualifications. Most Industrial Arts teachers have baccalaureates and many have Master's degrees. Most have useful work experience. Our teachers, in terms of experience, tend to be of two distinct groups: a group of young teachers and a group of older teachers--but in the middle group we have relatively few.

5. Our programs are serving increasing numbers of female students. Many junior high schools run classes of 1/3 females. In elementary education we are solidifying our role, and of course you know that well because of New Jersey's leadership role in that vein.

SEMINAR DETAILS

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Dr. Willis Ray; President, AIAA
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Department of Industrial Technology
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DATE: April 7; 1978
PARTICIPANTS AND GUESTS: 48
SITE: Great Gorge Conference Center
McAfee, New Jersey

6. With regards to our programs, they are also clearly changing in scope. They are not as narrow as they used to be. They are broadening. Manufacturing, construction, transportation, communication energy, and power are increasing in prevalence.

   Instructional materials are also changing. Industrial Arts teachers have vital roles in assisting youngsters to learn to read. And technical materials have great motivational powers.

. . .

7. The status of supervision, especially local supervision, is declining in terms of both number and quality. Local supervisory positions are being eliminated. State level supervision varies from state to state with the range from excellent to none at all represented. We need to encourage the strengthening of state level supervision.

8. Teacher education is well in hand. Overall there are many quality programs preparing teachers better than ever before.

9. With regard to financial support, Industrial Arts is just beginning to get some, other than the normal local and state funds it always received. The critical point however, within the financial aspect is that Industrial Arts is not going to be in a good position unless it can get inside the planning process. That means that your leadership group must interface effectively with the state vocational education planning system.

. . .

10. Student groups have recently received U. S. Office of Education approval. The American Industrial Arts Student Association (AIASA) is now a recognized vocational youth group just like VICA, DECA and the like. This means that AIASA activities can be supported with vocational funds if you design your programs to incorporate these activities. AIASA is also now a corporate entity. There are over 8,400 members of AIASA in 31 states. There is another youth group called the American Industrial Arts College Student Association. This group represents the ones preparing themselves as future teachers of Industrial Arts and they represent a real professional promise.

11. The best association effort is occurring at state, county and local levels. Those are our strongest associations.

. . .

12. Our national associations are unfortunately somewhat undersubscribed. We have the Industrial Arts Division of the AVA with its 1,500 members and the AIAA represents some 7,000 members. In essence, for every 10 Industrial Arts teachers only one is an AIAA member.

13. What is the problem of our national groups? Apparently they are not serving the needs of the profession or perhaps they are just not communicating clearly. The thing that has to happen is that as a professional in our field, each of you must internally come to the point of being excited about becoming involved, about our contributions to the youth of our nation. Then, when we begin to get excited about the profession, we might begin to build our association. Not because of what the association is doing for us, but because through associations, through group work, you can become a better teacher, become a better human being!

14. The status of our national groups is not strong. In fact the AIAA is experiencing some financial difficulties. We simply need the help of every Industrial Arts professional in this country to support either or both our national groups and also to support our state, county and local associations as well. Place a substantial proportion of your resources into developing your profession. And, I don't just mean money. Also urgently needed is your effort, your time, your personal excitement.

15. The status of our profession is a healthy one and yet, we have a long way to go!

16. Extensive discussion ensued.

Seminar 5: Industrial Arts and Technological Literacy

1. The focus of this seminar is technological literacy: an objective for Industrial Arts. Additionally, its relevance to the basic skill thrust will be explored.

2. A basic assumption is that we are not dealing with history, we are dealing with now.

3. Industrial Arts involves (solicited from participants):

   a. Study of industry, interpretation of industry

   b. Career awareness

   c. Hands-on activity approach

   d. Avocational pursuits

   e. Exploration of technology

4. Bonser and Mossman's definition of Industrial Arts: "A study of the changes made by man in the forms of materials to increase their value and the problems of life relating to these changes." (1923)

5. AVA definition: "A study of our technology including industrial tools, materials, processes and products, occupations and related problems." (1965)

6. Dr. Maley: "Those phases of general education that deal with industry, its organization, materials, occupations, products and with the problems resulting from the industrial and technological nature of society."

7. Industrial Arts is general education--a very important point since that provides our link to the basic skills thrust.

8. What is technology (solicited from group):

   a. Applied science, practical purpose

   b. Study of efficient practice, technical method

   c. Hardware

SEMINAR DETAILS

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Dr. Edward White, Chairman
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Dr. David Mohan, Associate Professor
Graduate Coordinator
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DATE: April 26, 1978
PARTICIPANTS AND GUESTS: 53
SITE: Glassboro State College
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9. The totality of the means employed to provide the objects necessary for human sustenance and comfort.

10. Technology is contemporary synthesis.

11. Of course, the IACP bases technology on the science of efficient action.

12. Do we live in a technological society? Most certainly! What is its relationship to the quality of life? Are you positive or negative towards it?

13. How pervasive is technology: let's examine some terms:

    a. Technostructure: Scientists and engineers trying to increasingly control the nation's economy

    b. Technocracy: Management of society by technical experts

    c. Technological fix: A technological solution to social problems

    d. Quality of life: The characteristics that make life desirable. Note that we have gone from a needs to a wants based population. Now the rest of the less developed nations look at us and begin to identify our wants as basic needs.

    e. Technological assessment: Systematic planning and forecasting processes

    f. Alternative technology:

    g. Technological options:

    h. Low impact technology:

14. We tend to see technology as a separate entity from our sciences. This may lead to some difficulties because we need to share with science. Science and technology are invariably intertwined in our dynamic society.

15. Technology transcends applied science. It goes beyond that. It impacts on the social, cultural, the economic, and psychological factors in a society. It is extremely pervasive.

16. With reference to Eric Hofer's book, First Things, Last Things: he states that early in the evolution of man, that individual is portrayed as someone beset upon by the elements, he is constantly in a state of frustration, trying to adapt to the environment. But Hofer says no. When mankind evolved, he evolved in leisure and play. It was an enjoyable existence and

as man needed to adapt he adapted by technology. Hofer sees us moving back to this point.

17. Technology is at the root of man's advancement. It assists mankind and its growth experience. How much more basic can you get than an understanding of technological literacy and how it relates to mankind?

18. What is the current dilemma? Hofer, speaking in a world-wide perspective, indicates that it is not in production, but rather in distribution.

. . .

19. Technology functions to alleviate man's quantitative problems however, when we get to qualitative concerns it is another problem. Although the technology exists, it is really how we choose to use it that matters.

. . .

20. Note with respect to leisure that:

a. Primitive man spent approximately 15% of his time on leisure

b. Agricultural man spent approximately 23% of his time on leisure

c. Industrial man spent approximately 40% of his time on leisure

Technology has created and expanded the opportunity for leisure and play. This is a significant factor for education to consider.

. . .

21. Currently technological literacy is not taught but rather one assimilates it.

22. Technology is also invariably tied to value decisions. The interaction of technology and values has a major determining influence on our quality of life.

. . .

23. During the past 25 years the USA has spent 200 billion dollars on R and D, 80% devoted to military, atomic and space efforts.

Basic research is invaluable to society even if we do not see immediate benefits. Not all advances result from applied research. Without solid foundations of fundamental research, applied research will not be fruitful.

24. When projections of past trend of federal budget (based on the last decade) to 1986 we will see:

    a. National security spending up 114%

    b. General government spending up 211%

    c. Human resources (HEW) spending up 183%

    d. R and D funding up 2.5%

    Not even keeping even with inflation.

. . .

25. The technology-population interface will become a major source of problems.

    a. World-wide we are adding 63 million a year

    b. 95% of Europeans live to the age of reproduction

. . .

26. Standard of living = $\frac{\Sigma \text{ of production} - \Sigma \text{ losses}}{\text{population}}$

27. Quality of life = $\frac{\Sigma \text{ production} - \Sigma \text{ losses}}{\text{population}} + \frac{\Sigma \text{ services/time}}{\text{population}} + \frac{\Sigma \text{ experience/time}}{\text{population}}$

28. Where do citizens hear of technology? Where do they study it? Where can they go for help? A recent Harris poll shows:

    a. The quality of life is thought to be decreasing

    b. 63% of those polled had a bad experience with an industrial product during the past year

    c. Negative factors mentioned include inflation, unemployment, the physical environment, skepticism about the viability of the current economic system

    d. 3 to 1 they felt short-changed about product quality, safety, warranty, and the manufacturer's ambivalence to the consumer

29. We now have a national Office of Technological Assessment. Primary areas of concern include:

    a. Energy

    b. Food

c. Health

d. Materials

e. Oceans

f. World Trade

30. What then is the bottom line? How does Industrial Arts fit in?

a. Technological literacy is important, but it is not our whole (only) contribution.

b. Industrial Arts could provide a broad definition of technology--and an opportunity to experience its implications.

c. Industrial Arts could assist in an interdisciplinary effort towards awareness of technology's impact, positive and negative implications, assessment approaches and the like.

d. Cause students to explore technology's implications for the quality of life (man as consumer).

e. Assist students to become aware of the technological implications on the career and occupational implications of technological advances.

f. We can provide a hands-on experience with technology in terms of the tools, machinery, materials and processes of industry.

g. Industrial Arts could become the educational synthesizers. We could counteract the fragmentation of the existing subject areas.

31. But, a caution, after we do all these things, let's not lose our rich heritage--the study of industry. Let's not lose our identity. But we can embrace more than what we are currently addressing.

32. For our students, the ones that long to know and understand their world; that question things that you provide; that are concerned with the search for data; that demand verification; that respect logic; these students need more than traditional Industrial Arts . . . and that "more" can begin with technological literacy.

33. Hence, relative to technological literacy, the points that are important include:

a. Technology is a concept, not an artifact

b. Our society is predicated on science and technology in unison, not either or

c. Technology interacts actively with population

d. Technology and R and D: Implications for basic research

e. Technology and change and chance

f. Technology: Human wants versus Human needs

g. World implications of resources related to technology

h. Quality of life

i. Technological literacy and Industrial Arts

Seminar 6: Thorough and Efficient Education

1. Participants viewed a slide/tape series detailing a comprehensive description of New Jersey's Division of Vocational Education and its activities.

2. Industrial Arts is clearly a part of the overall career education development spectrum, as is vocational education.

3. We need to tell our story: just how and why this overall spectrum functions. The public needs to know.

4. Students ought to be in a position, after or as a result of, participation in such a full spectrum program, of being able to make at least a tentative career decision. We have the responsibility of seeing that they have a substantial basis for such decisions.

5. Furthermore, because of the types of decisions, knowledges and attitudes involved, our provisions can not just be a paper and pencil, or a "talk at" type of experience.

6. If you refer to Dr. Wenzel's address at the 1976 Industrial Arts Association initiated joint vocational group session at the NJEA Annual Convention, on Vocational Education and Thorough and Efficient Education, you will remember his reference to the length of time it takes education to change.

7. The original amendment to New Jersey's constitution, which said the "state shall provide for all of its citizens, age 5 through 18, a thorough and efficient education," was passed in 1875. One hundred and three years later, we are struggling to determine how to effect this goal and to identify the constituents thereof.

8. We are not sure what T and E is: neither what is thorough nor what is efficient. However, note that there can be no thorough and efficient education, in whatever form it takes, unless you are deeply involved. You cannot stand aside and let someone else do the implementing. Your discipline must be integrated into the overall effort.

SEMINAR DETAILS

SESSION LEADER

Mr. Stanley Grajewski, Supervisor
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New Jersey State Department of Education
Trenton, New Jersey 08625

Mr. Harold Seltzer, Deputy Assistant Commissioner
Division of Vocational Education
New Jersey State Department of Education
Trenton, New Jersey 08625

DATE: May 9, 1978

SITE: New Jersey State Department of Education
Trenton, New Jersey

PARTICIPANTS AND GUESTS: 36

9. You may recall that the original version of Chapter 212 of the law did not even include a single mention of vocational education. This problem has since been remedied.

10. Note the twelve outcome goals for a T and E educational system include:

    a. Number 5, aims at student acquisition of job entry skills--and also to acquire the knowledge necessary for further education

    b. Number 12, seeks to have students learn to enjoy the process of learning

11. Industrial Arts is perhaps in the best position of any school subject to help students towards the achievement of goal twelve. You can make learning enjoyable. You can teach students how to acquire the skills necessary for a lifetime of continuous learning. And, you can most certainly teach them the basics which will allow them to adapt to change.

12. Our technological future is open for speculation, but Industrial Arts is certainly a key to it--particularly with its general overview.

13. Another of the concomitants of T and E is the need to provide career awareness, guidance and counseling to assist students in making tentative decisions. Again, I would suggest that Industrial Arts teachers represent the best kind of counselors in our schools. There is no better opportunity to provide guidance and counseling to students than in the laboratory where they are actually doing something that they feel successful about. Laboratory based student-teacher interaction is inherently different than office based, across the table, type of counseling.

14. Industrial Arts must also take the initiative and take its message to the public and to the administrators. You must actively seek involvement in the school planning process.

15. These points are all the more crucial to you since you are a high cost program. So, make your voices known. Tell people what you are doing. Tell them what you are capable of doing. And then be sure to share your vast background of experience with your students.

16. Now, with respect to the funding of Industrial Arts towards the goal of a thorough and efficient system we have to note the realities:

    a. The available dollars amount to 14 million

    b. Then there are 611 school districts

    c. 1,400,000 students

    One can see that the available dollars are not going to be the sole panacea.

17. Furthermore, these public school dollars are in danger of being even more reduced by the proposed increased in the proportion of funds set aside for post-secondary education programs.

18. In the future, you will also begin to see the emergence of some new proposals for the reform of secondary school requirements of secondary school requirements in New Jersey. Unless radical new influences come to bear, you may be sure that your activities and many of the other kinds of things in vocational education will play an important role. Industrial Arts is an integral part of it and we are recommending that it be mandated for all students, male and female.

19. With respect to publicity, you must of course establish rapport with the reporter. Keep at it and cultivate the education staff writers. Be sure to provide them with information that is not merely normal or typical. Try for some public interest articles or unique aspects of your program or its students.

20. T and E, by virtue of its public dissemination of overall school goals, affords Industrial Arts professionals a great opportunity to document the links between their program goals and those of the over system. The more numerous, the more clear, the stronger these links are, the more viable will be that district's Industrial Arts program.

21. T and E will also result in the implementation of Program Oriented Budgeting (POB). This will then enable us to identify the exact dollar expenditures, both planned and existing, for each key program in our schools. Such budgeting procedures must be implemented, by law, by 1982. Again this represents an area that Industrial Arts leaders must be knowledgeable in.

22. Now, will POB ultimately prove to be a detriment because of its identification of Industrial Arts as the most expensive program area? This eventually is not likely at all. Industrial Arts is not the most expensive program area in the school. There is nothing more expensive than a second year French class with two students in it. Furthermore, POB is most likely to prove that Industrial Arts is comparable to science and biology laboratory courses, for example.

23. Another way of looking at costs is to look at the alternative costs. For example, Job Corps at Camp Kilmer, has an annual budget in excess of 2 million dollars for some 500 trainees. Now, on a per pupil cost this is much larger than the average per pupil expenditure in New Jersey of $1,706. Or look at CETA or other alternative programs for those students for whom school has been an absolute, unadulterated failure.

24. We have to start telling people about those alternative costs. We have to stop spending $10,000 per year to repair students that the school could have, with the addition of a few dollars, adequately prepared.

25. Industrial Arts must also be cognizant, now that it is eligible for federal funds, is that PL 94-142 and section 504 call for the accessibility of any and all your programs and courses.

26. Of course, to assist you in meeting such needs, this year's funding permits you to access disadvantaged and handicapped set-asides.

27. It is also useful to note that besides the state and federal vocational education sources for Industrial Arts, there is also support to be had from Title 6 (ESEA), for services to the handicapped (e.g., this year Title 6 funded about $4 million on vocational education programs). There are Title 1 monies that you may be able to access. The U. S. Commissioner has discretionary money. You need to look at all sources because no one source will be able to supply all your needs.

28. However, remember that the best support is still your own school board. Particularly one that is solidly behind you and that puts your programs and objectives near the top of their list of priorities.

29. Your best reference to T and E would be the T and E Primer, third edition. The Education Improvement Center would also be the first point of contact when seeking help. In the field of Industrial Arts/Vocational Education the county career coordinators represent the most knowledgeable consultants.

30. Guided by Michael Dyrenfurth, participants subsequently engaged in a detailed review of the new state plan's provisions and opportunities for Industrial Arts.

Seminar 7: Industrial Arts and Special Needs Education

1. Industrial Arts is going to have increased contact with mainstreamed handicapped youngsters. PL 94-142 will insist on this.

2. Note the parallels between PL 94-142, Education of All Handicapped Children Act, and New Jersey's own codes (Title 18, chapter 46). Our state has played a leadership role in serving special needs youngsters.

3. PL 94-142 is basically a law for the purpose of providing every handicapped child in the nation an opportunity for an education which is equal to any other child's. No more--no less.

4. Regardless of where the child is, in a private school, in an institution, in public school, or a parochial school; by this law the child is entitled to an appropriate education.

5. PL 94-142 is grant legislation. It does not mandate that you must provide. It is not civil rights legislation. Rather it indicates that if you are willing to provide, it will make funds available. However, related legislation forbids discrimination against a person because they are handicapped.

6. The new laws make appropriate educational programs available at no cost to the parents. Hence, financial exclusion is avoided.

7. Note that when the CEC talks about a handicapped pupil, they are referring to a student with a learning handicap, not necessarily a physical handicap.

8. New Jersey, for the school year 1978-79, will receive about 20 million dollars for the improvement of education for the handicapped. Fifteen million of that is earmarked as flow-through funds that go directly to local programs. Five million dollars are to be allocated on a competitive basis.

9. Now, the 15 million dollars are broken down to the average number of handicapped pupils a district serves. Using a grant of $100 per child, if your district serves 500 such students you would receive $50,000 as a minimum.

SEMINAR DETAILS

SESSION LEADER
Dr. Russell J. Kruppa, Chairman
Department of Industrial Arts
Trenton State College
Trenton, New Jersey 08625

Dr. Stephen Hritz, Associate Professor
Department of Special Education
Trenton State College
Mr. Richard Politi, Child Study Supervisor
Burlington County
New Jersey State Department of Education

DATE: May 25, 1978

PARTICIPANTS AND GUESTS: 31

STATE: New Jersey Occupational Resource Center
Edison, New Jersey

10. There is a requirement however, that a district receive a minimum of $7,500. By this the law is designed to encourage cooperation of smaller districts. Joint programs are favorably received.

11. All flow-through funding is noncompetitive. This means a district merely has to apply for its share.

12. Competitive funding provides an opportunity to support the most promising the most innovative, the most effective, or efficient programs on a proposal basis.

13. The state also uses part of the 5 million to provide technical assistance to school districts.

14. There is a requirement that flow-through funding must be used to improve the education of handicapped youngsters. It may hire staff; conduct inservice; buy equipment, materials, supplies; provide for counselors, support parent groups, consultants; anything--as long as the objective of improving services is met.

15. Flow-through funding also carries an additional stipulation with it, namely it may not be used to supplement local or other federal programs. PL 94-142 monies have to be used in addition to other funds.

16. Separate barrier-free legislation calls for new public buildings to meet accessibility guidelines appropriate to physically handicapped people. It also states that if there is to be renovation or remodeling of existing buildings, if such work is in excess of 60% of the appraised value of the building, it must then incorporate access provisions. If the renovations amount to 30-60% of the appraised value, then a proportion of the renovation dollars must be spent in meeting these standards.

17. In New Jersey, the average per pupil cost is calculated at $1,659. Weighted factors provide additional state monies for each handicapped youngster of each type. Now PL 94-142 supplies the $100 of flow-through funding on top of both these amounts.

. . .

18. For every category of handicap there is a weighted factor that represents a proportion of the average per pupil cost, e.g., educable mentally retarded students are factored at 59% of the per pupil cost average in addition to the normal funding for those students.

    Some categories have higher factors, e.g., emotionally disturbed students are factored at 127% over and above the regular entitlement.

19. Now, all of Industrial Arts is going to be impacted by the laws which call for an IEP (individual educational plan). These must be developed for each classified handicapped child.

20. Note the CEC filmstrip on implementing PL 94-142.

21. New Jersey has a State Plan for the Education of the Handicapped. Copies may be obtained from Dr. James Richardson, Director of Special Education, in the State Department of Education.

22. Note that the legislation does not automatically mandate mainstreaming, rather it mandates appropriate treatment. Appropriate means the least restrictive environment as judged by the child study team.

23. Gifted and talented students are not considered a part of those referred to as handicapped in the federal legislation. T and E regulations however require their recognition and subsequent provision for.

24. With respect to class size, New Jersey law regulates sizes for categorized classes:

    a. EMR maximum size is 15

    b. NI/ED maximum size is 8.

    c. Mainstreamed class sizes are based upon a local school judgement

25. How do teachers that are not trained in dealing with special needs students obtain the specific input that assists them in providing for such students?

    a. The federal, state and local plans must include an inservice component, not only for special education teachers but for all teachers

    b. Teachers will also be involved as part of the IEP process

26. Classroom teachers will in fact be evaluated against student progress according to the IEP.

27. IEPs require input by parents, teachers, local child study teams, and by the local school administrator.

28. The IEP is no different than what many good teachers are doing right now. You assess the child, you assess the class, you decide what you want to do with the child, you decide where you are going to take the child, you assess the child's strengths, your strengths, his weaknesses, your weaknesses and then you just proceed as you normally do, by exercising your best professional judgement.

29. The first part of IEPs involves assessment. Teachers do not play a major role here. Basically this is information gathering by the Child Study Team (the psychologist, the social worker, the learning consultant, if necessary, a neurologist). This team assesses a child; they then develop a plan.

30. The second phase, or decision-making step, begins to involve teachers more extensively. This involves a committee (regulations require four persons: a district person, a teacher, the parent, and whenever possible, the child). This group reviews the types of programming to be offered the youngster.

31. The next phase involves implementation of the program and his subsequent placement. Both federal and state law call for teachers who would come in direct contact with such students, to be involved in this phase.

32. The IEP's final phase is its monitoring. Here previous decisions are evaluated and modifications recommended as appropriate.

33. In developing IEPs note this general outline:

    a. Identifying information

    b. Referral information (why has child been referred to the Child Study Team {CST})

    c. Statement of the findings

        - levels of existing performance
        - how does child learn best

    d. Team conclusion and classification

    e. Development of Plan

        - annual goals
        - short-term objectives
        - student placement in least restrictive environment

    f. Evaluative criteria and procedures

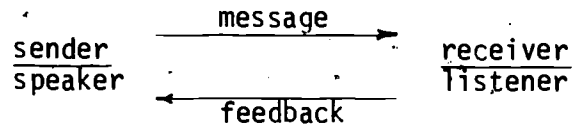
34. Note that the T and E process is quite compatible with the systematic approach called for by the law.

35. Districts must file a local plan for education of the handicapped. A copy is kept, available for examination, in your county superintendent's office.

Seminar 8: Communications and Interpersonal Relations

1. Communication involves the sending and receiving of messages. Sending messages is divided into verbal and non-verbal categories. Effective communication in both areas lends itself to accurately portraying your idea, plans, suggestions, thoughts and feelings, as well as, being able to gather accurate information.

2. Communication Model (one-to-one communication)



   a. The message is the combination of spoken word and non-verbal behavior of the sender.

   b. Feedback is the verbal or non-verbal indication that the message was received. It enables those involved to gauge if the message was perceived accurately.

   c. Breakdown in communication occurs when the message is changed, losing its intended meaning. This can happen either when:

      - the speaker sends out a message that is vague or incongruent (misleading or incomplete)
      - the receiver does not perceive the measage as the speaker intended

   d. Barriers in effective communication include perception, interpretation, lack of interest, bias, etc.

3. Non-verbal Communication

   a. Messages sent through body language--facial expression, being relaxed or tense, posture, stance, dress, position in a room, nervous gestures, eye contact, etc.

   b. Non-verbal behavior + words spoken = message

4. Overview of communication skills: to guide effective communication procedures.

   a. Essentially communications must be a two-way process.

   b. A message is sent from person A to person B. Then, for communication to be effective, person B must either respond to or interact with the message. Typically this results in feedback.

   c. As long as two people are in proximity, there is communication.

   d. The power balance between the communicators also affects the process.

   e. Communication is most effective when verbal and non-verbal cues are congruent.

   f. Typically it is the responsibility of the sender of a message to solicit feedback if the target person does not volunteer it.

   g. Preparation enables you to deliver clear messages and typically generates confidence which allows the sender to focus on the process more than the content, thereby enhancing communication.

5. Questioning provides a valuable means of verifying communications. Particularly in advocacy situations, it is important that through questioning you develop an understanding of the other person's feelings about your position/message.

6. Speaking as if you were confident is much more effective than if your doubts show.

7. Non-judgemental communications tend to be more receptively listened to than judgemental messages. Judgemental listening blocks your reception of what your speaker is sending.

8. Particularly in advocacy positions, ownership of ideas/messages must be clearly communicated. Are you speaking or are you representing the views of some larger group? Do you have the right to speak for the group?

9. Timing also plays a major role in effective communication. Typically receiver receptiveness varies over time and obviously it would behoove you to choose the time most likely to encourage the desired outcome.

10. Verbal Communication: Key aspects

    a. Preparation--being prepared to discuss the issues or topic fosters confidence. It enables you to place emphasis on that which requires it.

b. Clarity--selection of words is important to portraying an accurate message. Clear, concise, complete statements are essential.

c. Fluency--a smooth, flowing presentation void of breaks such as "ah," "um," "okay," etc., promotes an image of confidence and assertiveness.

d. Directions--clarity in delivering directions is essential. Words should be carefully chosen and should be clear and concise.

e. Questioning--messages you receive are not always clear. Ask questions to clarify the message, rather than allowing it to remain confusing or vague.

f. Confident Words--credibility is more readily assigned to messages presented when the speaker uses words and/or phrases which are assertive.

g. Non-judgemental Communication--statements reflecting your personal values should be carefully labeled as such. Judgemental statements can be a barrier in communication.

h. Speaking for self--unless elected by a group as their spokesperson, claim ownership to personal thoughts and feelings. This allows communication channels to remain open and unclouded.

i. Thinking versus Feeling Statements--thinking and feeling are two separate acts, yet are frequently interchanged for one another. Thinking statements involve the thought process, gathering information, objective evaluations--they are of the intellect. Feeling statements describe those things commonly referred to as "gut reactions," subjective evaluations--they are of the emotions.

j. Quality versus Quantity--it is not how much you say, but rather what you say that is essential in effective communication. Content of a message may lose impact or meaning or become camouflaged by too many words.

11. Listening, a vital aspect of effective communication, is an active process that is enhanced by an open (non-judgemental) attitude.

12. Sorting out and organizing a speaker's message improves message transfer and effectiveness.

13. Communication breakdown often results from a failure to check if the message sent was the message actually received or vice versa.

14. Communication may be classified into the categories/modes of:

    a. Assertiveness

    b. Aggressiveness

    c. Passiveness

15. Assertiveness essentially involves saying what one means as contrasted to a passive (non-assertive) manner wherein one does not say what one wants because one "does not have the right."

16. Aggressive behavior is carrying one's personal views over others' to the extreme. As a result, aggressiveness breeds defensiveness and this in turn drastically undermines communication.

17. Aggressiveness tends to "put down" or minimize other people--a characteristic that assertive behavior does not share. Assertive behavior is mutually enhancing.

18. Assertive communication is essentially an honest, straightforward, spontaneous expression of what you think, delivered in a non-offensive manner.

19. Eye contact, particularly direct contact, is necessary to effective assertive communication.

Participant Identification and Selection

In response to a mailing (see Appendix B) to all New Jersey superintendents, the candidates listed in Table 1 were nominated as possible participants for the project. Note that for purposes of space economy candidates finally selected are excluded from this list. After careful perusal of resumes, demographic characteristics, professional stature, and career stage, the Advisory Council selected those participants listed in the introductory pages of this report. Despite the fact that project size restrictions precluded their participation, due to the selectivity of the nomination procedure, the instructors listed in Table 1 represent a rich talent pool. Accordingly the list of nominees not able to be included in the seminar was forwarded to the Industrial Arts Education Association of New Jersey for their use in other professional activities.

Table 2 provides a summary of the geographical distribution, by county, of both nominees and participants. Figure 3 illustrates the school location (also seminar sites) of the thirty-five seminar participants. For documentary purposes, a comparison of nominator, participant, and nominee characteristics is provided in Tables 3 and 4. The former demonstrates the success of the identification system as may be seen by the nomination of approximately 4.5 percent of the eligible professionals (statewide) and their diversity and representativeness is shown by Table 4. It may be important to note that of the participants 14 percent (5) were women and 17 percent (6) represented minority groups. While undocumented, it is likely that the project exceeded the state's current ratio of female and minority group industrial arts professionals.

A previous leadership development seminar, conducted as a two-day program concurrent with the 1976 Vocational Education Association conference, involved 30 participants. Together with the 35 participants in the second leadership development seminar, this brings the total impacted leadership cadre to approximately 2% of the state's 3,200 industrial arts teachers. As such it represents an increase of approximately 1.1%. As such, objective 2 (to work towards expanding the leadership cadre to approximately 3% of the state's industrial arts teachers) is realized to about half of its ultimate level. Upon completion of the anticipated reauthorized successor project, these seminars will have then attained the initial goal. It is expected that such a cadre will then have reached a critical mass more suited to continuing effort.

A review of the participants' resumes reinforces the selection process in that they did indeed represent a group of involved professionals at varying stages of career development as documented by the 20-50 age range. They attended better than 24 different colleges/universities, many of which were clustered in the New Jersey and Pennsylvania areas but which also included Howard University, Central Missouri State University, West Virginia University, Oswego, Ohio State University, Fordham University, Northwestern State College (Oklahoma), Central Connecticut State College and even the General Motors Institute. All degree

Nominees for IALDP Participation*

Name	School	County	Position
William Agnoli	Bogota H.S.	Bergen	Chairman
Louis Angebrandt	Lawrence Twp. H.S.	Mercer	CIE/IA
William Banholzer	Bergenfield H.S.	Bergen	IA Chairman
Frank Bates	Oakcrest H.S.	Atlantic	Chairman
Robert Bates	Overbrook J.H.S.	Camden	IA
Jim Beachell	Princeton H.S.	Mercer	IA (Spec. Ed.)
Russell Bell	Bridgeton H.S.	Cape May	IA
Charles Bersch	Hamilton H.S. (West)	Mercer	Curriculum Asst.
Alfred Bowen	Warren Hills R.H.S.	Warren	IA
Richard Boyd	Vineland H.S. (North)	Cumberland	Chairman/CIE/Vo. Ed.
Charles Burke	Matawan R.H.S.	Monmouth	IA/CIE
George Butt	Sterling H.S.	Camden	IA
Keith Callery	Ocean City I.H.S.	Cape May	IA
Felicita Camacho	Webster J.H.S.	Essex	IA
Nicholas Cammarano	Long Branch H.S.	Monmouth	IA/CIE
Barry Campbell	Williamstown H.S.	Gloucester	Chairman
Ronald Castagna	Montville H.S.	Morris	IA
Patrick Caulfield	Hoboken H.S.	Hudson	IA Supervisor
Roger Cole	North Hunterdon R.H.S.	Hunterdon	Chairman
William Collins	Pascack Valley H.S.	Bergen	IA
Theodore Cosey	Hubbard School	Union	IA
Donald Cotgreave	Shore R.H.S.	Monmouth	IA
Dominick Cristo	Kinnelon H.S.	Morris	CIE
Norman Crystal	Hillside H.S.	Union	Director of IA
Marianne Daughen	Wildwood H.S.	Cape May	Chairman/Fine Arts
Robert Deats	Cinnaminson H.S.	Burlington	IA
Thomas Dewitt	Pennsauken H.S.	Camden	IA
Thomas Diapolito	Jersey Academy	Sussex	IA
Tony DiPasquale	Dag Hammarskjold J.H.S.	Middlesex	IA Chairman
Willy Dittmar	Montville H.S.	Morris	IA
Ronald Dolan	Joseph H. Brensinger S.	Hudson	IA/Elementary
Thomas Domerski	Northern Valley R.H.S.	Bergen	IA
Clancy Edmonds	Belvedere H.S.	Warren	IA
Richard Elsaesses	Warren Hills R.H.S.	Warren	IA
Gerard Esposito	Maywood I.S.	Bergen	IA
Barney Fabbo	Franklin E.S.	Middlesex	Vice Principal
David Faulhaber	Salem H.S.	Salem	IA
Herbert Frederick	Wildwood H.S.	Cape May	IA
Albert Gasior	Pompton Lakes H.S.	Passaic	V. Prin., Bd. of Ed.
M. Georgianni	Palmyra H.S.	Burlington	IA/T & E
Dean Goettsch	Watchung Hills R.H.S.	Sommerset	Chairman
Richard Gotta	Florence Twp. Mem. H.S.	Burlington	IA/T & E
William Green	Franklin M.S.	Middlesex	IA
Charles Guenther	Lenape R.H.S.	Burlington	IA

*Excluding those nominees actually selected

Alan Hanford	Lower Alloways Creek Twp.	Salem	IA/Bd. of Ed.
Robert Hazelton	Plainfield H.S.	Union	IA
James Hoffman	Shore Regional H.S.	Monmouth	Chairman/Mid. States
Carl Holcombe	Hamilton H.S. (West)	Mercer	IA Chairman
John Holmes	Pennsauken H.S.	Camden	Chairman
Richard Hornchek	Ewing H.S.	Mercer	IA
Donald Jackson	Rutherford H.S.	Bergen	IA
William Jackson	Maxson M.S.	Union	IA
David Karre	Kinnelon H.S.	Morris	CIE
John Kelley	Benjamin Franklin J.H.S.	Bergen	IA
Gary Kessler	Millville Mem. H.S.	Cumberland	IA
George Kopko	Schalick H.S.	Salem	IA
Robert Kraus	Bergenfield H.S.	Bergen	IA
Robert Kuipers	Glen Rock H.S.	Bergen	IA
Michael Lauten	Scotch Plains-Fanwood H.S.	Union	Chairman
Frank LaVigna	Kennedy H.S.	Passaic	IA
Laura Lewis	Lenape R.H.S.	Burlington	IA
Jane Liedtke	Hightstown H.S.	Mercer	IA
Burt Logenbach	Cranford H.S.	Union	Chairman, Art
Nicholaj Lukinov	William Annin J.H.S.	Sommerset	IA
David Malseed	Burlington Twp. H.S.	Burlington	Chairman/Mid. States
Leonard Mandelbaum	#12 Paterson	Passaic	IA
Joseph Marrone	Jamesburg H.S.	Middlesex	IA
Bernard McClennand	Carteret H.S.	Middlesex	IA Chairman
Norman Meyer	Glen Rock J.S.H.S.	Bergen	Chairman/Career Ed.
Edward Mitchell	Thompson J.H.S.	Monmouth	IA
Joseph Mondoni	Monmouth R.H.S.	Monmouth	IA/CIE
Grant Morgan	Parsipanny H.S.	Morris	Chairman
John Moses	Red Bank R.H.S.	Monmouth	IA
Earl Murphy	Trenton Central H.S.	Mercer	Principal/VE
Neil Olufsen	East Brunswick H.S.	Middlesex	Chairman
Cornelia Orentlicher	Benjamin Franklin J.H.S.	Bergen	IA
Gerald Papariello	Piscataway H.S.	Middlesex	Supervisor
William Pappas	Williamstown H.S.	Gloucester	Chairman
Fred Pasquini	Teaneck H.S.	Bergen	IA/CIE
Craig Peters	Piscataway H.S.	Middlesex	IA
Lou Piccirillo	Hillside H.S.	Union	IA
Robert Poole	Rancocas Valley R.H.S.	Burlington	IA Chairman
Pasquale Ratta	Wayne Board of Ed.	Passaic	Career Ed.
Patrick Restaino	West Milford Twp. H.S.	Passaic	IA
Frank Rica	Summit S.H.S.	Union	Chairman
Robert Rossow	Elizabeth S.H.S.	Union	Chairman
Rosary Ryan	Absegami H.S.	Atlantic	IA
Roger Schneider	Red Bank R.H.S.	Monmouth	IA
William Schraer	Northern Valley R.H.S.	Bergen	IA
Roger Setser	Millville H.S.	Cumberland	IA
Ken Smith	Matawan R.H.S.	Monmouth	CIE
Edward Stawicki	Ridgefield Memorial H.S.	Bergen	IA/AV

Name	School	County	Position
James Stock	Waldwick H.S.	Bergen	Chairman/NJEA
Charles Suter	Chatham H.S.	Morris	IA/VE Coord./CIE
Tom Talbot	High Point H.S.	Sussex	IA
Dennis Tanner, Jr.	Vineland H.S. (North)	Cumberland	Chairman/CIE/VE
F. David Tedesco	Pascack Valley H.S.	Bergen	IA Chairman
Walter Troike	Pascack Hills H.S.	Bergen	Chairman
Donald Van Blake	Hubbard School	Union	IA Chairman
Fred Vezzosi	Thompson J.H.S.	Monmouth	IA Coordinator
Daniel Walter	Absegami H.S.	Atlantic	IA
Kenneth Wark	Chatham H.S.	Morris	IA
Carl Winterhalter	Verona H.S.	Essex	Chairman
Daniel Wright	Millville Memorial H.S.	Cumberland	Chairman
Arthur Yike	Sterling H.S.	Camden	IA
Frank Yost	Phillipsburg H.S.	Warren	IA
Total number of nominees		142	
Number of nominees selected (participants)		35	

Table 2

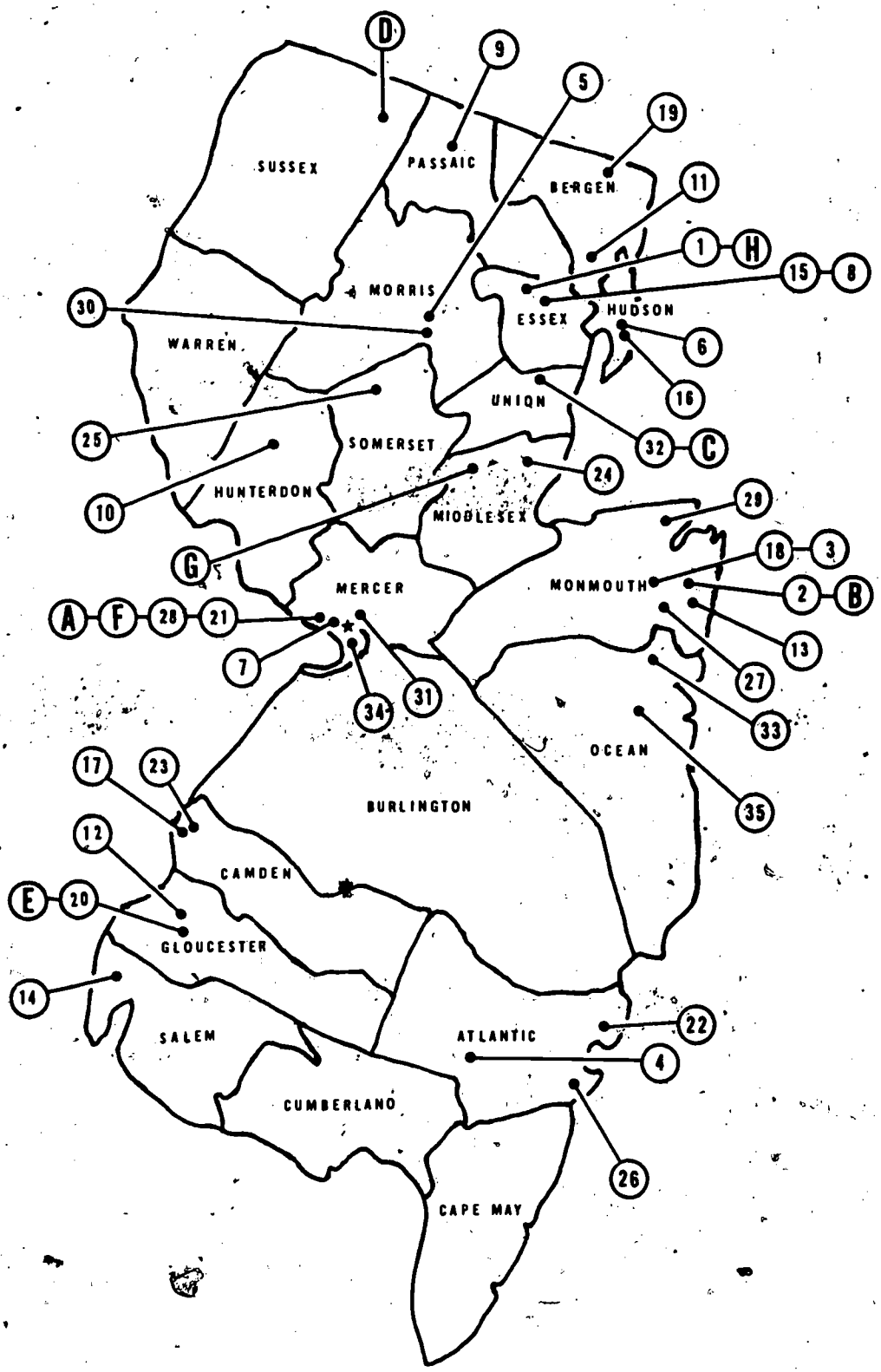
County Distribution Summary of Nominees

County	Nominees	Participants
Atlantic	6	3
Bergen	20	2
Burlington	7	-
Camden	6	2
Cape May	4	-
Cumberland	5	-
Essex	5	3
Gloucester	4	2
Hudson	4	2
Hunterdon	2	1
Mercer	12	5
Middlesex	9	1
Monmouth	16	6
Morris	9	2
Ocean	2	2
Passaic	6	1
Salem	4	1
Sommerset	3	1
Sussex	3	-
Union	11	1
Warren	4	-
Total	142	35

EXPLANATORY LEGEND: PARTICIPANTS AND [illegible]

A.	Department of Industrial Arts Trenton State College Trenton	Topic: Registration, Orientation and Program Overview
B.	Department of Vocational, Technical and Practical Arts Education Red Bank High School Little Silver	Topic: Key Legislation, Vocational Education Planning Cycle
C.	Industrial Studies Department Kean College of New Jersey Union	Topic: Funding Mechanisms and Proposal Writing
D.	Vocational Education Association of New Jersey Annual Conference Great Gorge Conference Center, MacAfee	Topic: The Status of Industrial Arts: USA and NJ
E.	Department of Industrial Education and Technology Glassboro State College Glassboro	Topic: Industrial Arts and Technological Literacy, The Relationship to Basic Education
F.	Division of Vocational Education State Department of Education Trenton	Topic: Division of Vocational Education: Its Implications for Industrial Arts
G.	New Jersey Occupational Resource Center Division of Vocational Education Edison	Topic: Industrial Arts and Special Needs Education
H.	Department of Industrial Education and Technology Montclair State College Upper Montclair	Topic: Communications, Interpersonal Relations, Sex Equity

1. Marie Abbey
   Montclair State College
2. Richard Allen
   Red Bank Regional High School
3. Stanley Baston
   Ocean Township High School
4. Eugene Compton
   Absegami High School
5. Michael Dakak
   Parsippany High School
6. Walter Govic
   Emerson High School
7. Nelson Gray
   Reynolds Middle School
8. Louis Guarino
   West Kinney Jr. High School
9. Neil Holster
   West Milford High School
10. Peter Kelly
    Voorhees High School
11. Joseph Kobylarz
    Garfield High School
12. John Lutz
    Pitman High School
13. Rus Malson
    Long Branch Senior High School
14. William Marple
    Pennsville Memorial High School
15. Ralph Mazzuca
    Dr. W. H. Horton High School
16. John Morris
    Whitney M. Young P. S. #15
17. Robert Morton
    Hatch Middle School
18. Paul Newcomb
    Monmouth Regional High School
19. Francis Olender
    Northern Highlands Regional High School
20. Laura Patey
    Glassboro State College
21. David Peirs
    Trenton State College
22. Jay Piercy
    West Side School Complex
23. Steve Rosbert
    Haddonfield High School
24. Harald Schmid
    Perth Amboy High School
25. John Stem
    Bernards High School
26. Barbara String
    Jordan Road School
27. Allen Sutton
    Neptune High School
28. Barbara Sutton
    Trenton State College
29. Horace Thorne
    Henry Hudson Regional High School
30. Gail Ullman
    Hanover Avenue High School
31. Robert Whitlock
    Princeton Day School
32. Elbert Winston
    Kean College of New Jersey
33. Jim Wolfersberger
    Brick Township High School
34. Richard Wurst
    A. Grice Middle School
35. John Ziemba
    Toms River High School North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MERCER
MONMOUTH
OCEAN
BURLINGTON
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Nominator and Participant Characteristics

Number of Nominators	Position of Nominator	Number of Nominees	Number of Participants
26	Superintendent	44	5
26	Principal/Vice Principal	37	4
5	Department Chairperson	12	1
3	County Career Coordinator	7	1
5	Vocational Director	9	4
7	Project Advisory Council	17	13
6	Other	11	6
5	Self	5	1
83	Totals	142	35

Table 4

Nominee and Participant Characteristics

Characteristic	Nominees	Participants
Male	134	30
Female	8	5
Minority	Undetermined	6
Age Range	20 - 62	21 - 50
Average of Age Range	35	34
Position Held		
Coordinator/Supervisor	7	3
Chairperson	39	7
I. A. Teacher	82	19
Student	5	5
Other	9	1

Many participants entered education only after prior involvement with another career such as the military, engineering, construction and manufacturing fields. Participants teach at all levels (K-12) and at least five have been employed as adjunct college professors. Due to the careful consideration of geographical factors, participants represented high density inner city environments as well as rural and suburban areas. A small number have demonstrated involvement with special needs students and programs but more are expressing interest therein. Also interesting is the involvement many of the chairpersons/supervisors have had--and are continuing--in fine arts, home economics, and other practical arts areas.

Participant leadership is evidenced by a significant number of indicators including: Epsilon Pi Tau membership; two were previously named New Jersey Industrial Arts Teacher of the Year; two have been listed among the outstanding Secondary Educators of America; many have been involved in the leadership of local education associations; Plymouth Troubleshooting Contest involvement; consulting appointments to State department projects; convention program presentations (national, state and local); Middle States Association team memberships; and publications in such journals as Industrial Education. Three participants have conducted nationwide research, one each in the areas of industrial arts class size and regulations; state curriculum guides; and sex destereotyping. Participant involvement is also discernable by their high American Industrial Arts Association and Industrial Arts Education Association of New Jersey ratio, almost 100 percent, and their support of other associations (e.g., American Foundrymens Society, National Association for Career Education, American Vocational Association).

A review of the highlights of the professional activities that the participants have engaged in further substantiates their inclusion in a leadership project. These activities included involvement with CETA/Manpower programs, participation in the development of New Jersey's Guide for Industrial Arts, IACP implementation and workshop staffing, alternate energy demonstration projects, coordination of cooperative education experiences, involvement with correctional institutions, offering of adult and evening courses, implementing of architectural career days and contests, and varied community service projects.

Participant and Staff Time Commitments

A total of thirty-five participants completed the project. Their involvement and dedication was evidenced by the high attendance level of 91 percent throughout the eight seminar sessions. Also served was a total of thirty-two guests who attended various sessions in addition to the seven Advisory Council members and the eight consultants. Overall the Division of Vocational Education's investment resulted in 939 manhours of interaction, presentation, and planning. Omitted from this total are the number of manhours, estimated at a minimum of 157, spent by the Advisory Council and the project director in support of this seminar, the normal administrative time required. Detailed data pertaining to these figures are presented in Table 5.

Participant and Project Staff Time Commitment

35 participants completed the project
8 of these participants registered one day late

2 of the original registrants withdrew
2 persons attended as best their schedule permitted, but did not register

8 sessions were scheduled throughout the project

34 individual session absences were recorded by the 35 participants. However, 9 of these occurred during a blizzard; hence they were excused. The effective number of absences was 25 (8.9%).
91% attendance of participants was achieved

38 a cumulative total of guests attended the sessions at various times

6 Advisory Council meetings were held (11/11, 2/3, 2/16, 3/17, 4/26, 6/1), at Atlantic City, Trenton, Hightstown, Union, Glassboro, and New Brunswick respectively. A total of 93 manhours was invested (not inclusive of travel).

Needs Assessment

At the beginning of the project participants were asked to complete a needs assessment instrument (see Appendix E). Responses were requested in terms of both state and personal needs. Table 6 summarizes the results as reported. Participants also identified the single most important/crucial problem/need/ concern facing their industrial arts program and their two most important personal objectives for the professional development project. The two listings are provided in Table 7.

As with any needs assessment results, their validity depends upon the extent of the participants' knowledge regarding the surveyed area. Generally, it seems this criterion was approached but some results suggest dissonance between the participants' perceptions and those of the project's Advisory Council. For example, the latter, as well as the profession, would tend to assign a higher rank to the state needs that were ranked lowest by the participants. However, measurement theory provides one factor that might mitigate the conclusion of some participant naivete with respect to the cutting edge of our profession. Because there exists no absolute scale as to degree of needs, one cannot determine if the ranking represents merely a relative positioning of needs that are all very important or if in fact a low reported need means that there exists little or no concern in that area. With respect to these two alternatives, the project director and Advisory Council have concluded that the first interpretation is most likely the correct one.

Table 6

Needs Assessment Summary

Personal Needs of Participants (decreasing importance)

	Rank	
	By Weighted Response	By Frequency
1. How to write proposals	1	1
2. Knowledge of T & E procedures	2	2.5
3. Sources of funding/grants	3	5.5
4. General IA/VE information	4	4
5. Dealing with special needs students	5	2.5
6. Status of IA	-	5.5

Participant Perceptions as to the Needs of New Jersey (decreasing importance)

	Rank	
	By Weighted Response	By Frequency
1. IA and Career Education	1	1
2. Sources of funding/grants	2	2
3. EIC activities and resources	3.5	3
4. Status of IA	3.5	-
5. General IA/VE information	5	-
6. Dealing with special needs	-	4.5
7. IA and technological literacy	-	4.5

Participants ascribed the lowest levels of state importance to (note that items are listed in order of increasing importance)

1. CETA program
2. Knowledge of state/federal departments/divisions of education
3. Destereotyping (racially and sexually)
4. County Vocational Education funding
5. State vocational planning cycle
6. Knowledge of what state and national associations are doing

Participant identification of the most important/crucial problem/need/ concern facing their school industrial arts programs

1. Dealing with/handling properly, special needs students in IA courses.
2. A lack of a unified, articulated, consistent system-wide IA program.
3. Developing and implementing a safety program.
4. Development of and obtaining support for improved IA facilities.
5. Inadequate supply, repair, equipment budgets.
6. Information as to where budget dollars come from.
7. A need to better integrate IA and Career Education.
8. To do a better job of career preparation.
9. To develop public understanding of goals and programs of IA.
10. To justify IA programs in T & E planning.
11. Convincing administrators of the legitimacy of IA.
12. To provide technological literacy through IA.
13. IA's role in basic skills.
14. To involve more students in IA, to make IA available to all requesting it, to bring IA to more elementary schools.
15. Coping with decreasing student quality, non-reading, etc.
16. Improving our courses, competing for college-bound students.
17. Class sizes.
18. Lack of female IA students, K-12.
19. Make college courses more relevant to industry.
20. Vocational schools.
21. "Professionally perfect" means of screening industrial educators.
22. Reeducating students in communications skills.
23. Trends in our profession.
24. Time to teach what we think should be taught.

Table 7--Continued

Participant identification of the two most important outcomes to be personally achieved through the seminar
1. Proposal writing, funding procedures.
2. Budgeting and funding methods.
3. To learn the role of a leader.
4. To improve as a teacher.
5. To learn what is going on in IA/VE in New Jersey.
6. To update knowledge of IA.
7. To identify and understand key laws and regulations.
8. To learn the local, county and state administration procedures.
9. To interact with colleagues, share ideas.
10. To be more responsible to needs of students, to learn to integrate special needs students.
11. To learn more and get involved in state and local associations.
12. To learn T & E procedures.
13. To learn about using state facilities.
14. To learn planning processes and develop a K-12 IA program.
15. To update IA/VE philosophy.
16. To learn how to present ideas and programs orally.
17. To expand the cadre of IA leaders.

The Advisory Council and the project director were encouraged by the needs assessment results. The needs ranked highest by the participants had all been previously built into the seminars--thus verifying the planning group's perceptions regarding the profession's needs. As is usually the case when dealing with an active group of professionals, their interests range beyond that which can be dealt with in normal time frames. This project was no exception for the participants and the project staff identified the following list of topics that simply could not be treated, or pursued to the extent required, within the eight seminars conducted by the project. The omitted/deemphasized topics included: industrial arts and CETA/YEDPA linkages, student clubs, career education, bilingual programs, metrification, state safety regulations, New Jersey Advisory Council roles with respect to industrial arts, the New Jersey Industrial Arts data problem, funding industrial arts through the county matrix, public relations techniques, and school department administration/organization. It should be noted that while specific seminars were not devoted to the preceding topics, they were included and explored as they became germane to the discussion at hand.

Advisory Council Activity

Throughout the project, the Advisory Council served as a guiding influence; a sounding board; and as such it provided a continuing and representative set of inputs. Constituted to involve an active industrial arts/vocational education supervisor; a faculty member from each of New Jersey's four colleges that offer industrial arts programs; the New Jersey Department of Education's supervisor for industrial arts; and the president of the Industrial Arts Education Association of New Jersey; this group was instrumental right from the beginning.

A total of six formal meetings were held during the October through June project period. Various locations (listed in Table 5) around the state served as meeting sites and their schedule is incorporated into Figure 2. Additionally, all Council members willingly responded to the director and participant telephone calls whenever the need arose. Because of their heavy commitment to other state activities, all Advisory Council members were not able to attend all Council meetings. Overall, the members did however contribute extensively and continuously. Furthermore, aside from small reimbursements for some expenses, it must be noted that they served not for remuneration but for the betterment of the profession. Their dedication and effort was a major factor in the project's success.

Advisory Council activity included a wide variety of inputs, reactions to, and suggestions for, action. Initially the identification and selection of participants became a major focus of effort. Overall detailing of the project procedures, test and needs assessment item specification, and consultant identification also were early activities that the Council became involved with. In addition, based on areas of personal strength and/or interest, each member accepted the responsibility of organizing and leading a seminar. Scheduling suggestions and document/handout/resource identification were further areas of Advisory Council input.

Participant Project Activity

To enable this course to meet contact--credit hour guidelines, participants were requested to identify a special project relevant to their local needs. These projects represented an individualized component requiring independent study and effort. After being provided with a catalytic set of topics/possibilities (see Appendix J) the participants proposed, using a project proposal form--also provided in Appendix J--and subsequently developed the wide range of significant projects, shown in Table 8. Clearly many (14) participants seized the opportunity to solicit support for their programs through funding proposals. A broad scope of interests and approaches is certainly evidenced by the listed project topics. It is also to the participants' credit that these funding proposals as well as the projects of a different nature all demonstrated great relevance to the needs identified by the needs assessment instrument.

Table 8

Projects Submitted by Participant as an Integral Component of the Industrial Arts Leadership Development Project

Participant	Project Submitted
Marie Abbey	"Technology--Culture Course Outline."
Richard Allen	"Audio-visual Media for Industrial Arts Technical Drawing." Proposal submitted to the New Jersey Division of Vocational Education (DVE) in response to their Industrial Arts Request for Proposal (RFP).
Stanley Baston	"Safety Education Program for the Ocean Township Industrial Arts and Vocational Education Department."
Eugene Compton	"Plastics Craft Industries Program for Students with Community Participation." Proposal submitted to the DVE in response to their Industrial Arts RFP.
Michael Dakak	"Feasibility Study of AIASA in New Jersey," (in process).
Walter Govek	"Resources for Careers Center." Proposal submitted to the DVE in response to their Exemplary--Innovative, Curriculum Development, and Vocational Guidance and Counseling RFPs.
	and
	"Metrification Program." Proposal submitted to the Department of Education's (DE) Mini-Grant Program.
Nelson Gray	"Guide for Establishing and Maintaining an Industrial Arts Club in Junior or Senior High School."
Louis Guarino	"Instrumentation--Small Appliance Repair." Course curriculum proposal.
Neil Holster	"Alternate Energy Center."
Peter Kelly	"Elimination of Sex Stereotyping in an Industrial Arts Program." Proposal submitted to the DVE in response to their sex bias RFP.
Joseph Kobylarz	"Drafting Facilities Update." Proposal submitted to the DVE in response to their Industrial Arts RFP.

Table 8--Continued

Participant	Project Submitted
John Lutz	"Cooperative Participation in the South Jersey Student Craftsmen's Fair." A proposal submitted to the DVE in response to their personnel development RFP.
James Malson	"Extra Expenditures Considered in Budgeting for a Voluntary Quinmester Extended School Year." A research paper.
William Marple	"A Safety Program for Pennsville Township Schools."
Ralph Mazzuca	"Correlating Science and the Industrial Arts Programs." A course curriculum proposal.
John Morris	"Improvement of Teacher Concepts of Industrial Arts Within the Basic School." Proposed inservice teacher workshops.
Robert Morton	"Model Rocketry." Initial draft of a course resource unit.
Paul Newcomb	"Video Textbook (TV Software)." A proposal submitted to the DVE in response to their curriculum development RFP.
Francis Olender	"Drafting Equipment Update." A proposal submitted to the DVE in response to their Industrial Arts RFP.
	and
	"Consumer Automotives." A proposal submitted to the DVE in response to their Industrial Arts RFP.
Laura Patey	"Communications Technology." A course proposal.
David Peins	"Industrial Arts in New Jersey." A public relations slide presentation prepared with Barbara Sutton (in process).
Jay Piercy	"Better Understanding of Industry and Land Development." A proposal submitted to the DVE in response to their Industrial Arts RFP.
Stephen Rosbert	"Public Information Program for Haddonfield Memorial high School's Industrial Arts Department."

Table 8--Continued

Participant	Project Submitted
Harald Schmid	"Initiation of Metrics and Expansion of Plastics in High School Industrial Arts Programs." A proposal submitted to the DVE in response to their Industrial Arts and sex bias RFPs.
John Stem	"Teaching Packets, Resource Unit and Student Workbooks: Mechanical Drawings--Developments."
Barbara Harris-String	"Bridging the Gap Between the Academic Realm and the Vocational Choices in Somers Point." A proposed teacher/student inservice project.
Allen Sutton	(Project in process)
Barbara Sutton	"Industrial Arts in New Jersey." A public relations slide presentation prepared with David Peins, (in process).
Horace Thorne	"Safety Program for the Industrial Arts Department: Henry Hudson Regional School District."
Gail Ullman	"Industrial Arts--Special Needs Education Rationale."
Robert Whitlock	"Establishing an Architecture Career Day."
Elbert Winston	"Safety Regulations for the Industrial Studies Department at Kean College of New Jersey." A proposal submitted to the Department of Education's Mini-Grant program.
James Wolfersberger	(Project in process)
Richard Wurst	"A Funding Proposal for Implementing an Industrial Arts Club at Grice Middle School."
John Ziemba	"Safety Guide for Toms River High School (North) Industrial Arts Program."

Pre/Post-Test Analysis

As part of the seminar experience, participants were asked to undergo pre- and post-testing of knowledge, comprehension and applications relevant to the leadership role in industrial arts. Comprehensive paper and pencil tests were generated by the project director. Advisory Council input served to guide this process, particularly in the case of the post-test. The instruments, provided as appendices D and G, were administered to participants during the first and last seminars respectively. Because of time limitations, the participants were allowed to finish the post-test outside of class, but they were asked not to consult references. Due to the excellent rapport established during these seminars, it is believed that instructions were adhered to.

Overall group test results were most encouraging. Figure 4 presents group performance profiles for pre- and post-tests. Gains are documented in each seminar topic area. Details of student performance are provided by Table 9 (individual) and Table 10 (group).

The greatest gains, between pre- and post-testing, were observed for seminars dealing with the topics of technological literacy (36%), program rationale (34%), vocational education planning cycles (29%), and sex equity (52%). Not unexpectedly these were also the topics with the lowest participant pre-test scores. Since the ranking of post-test scores differed considerably from those of the pre-tests, one is encouraged to believe that the seminar series did in fact affect the participants. Furthermore, as shown by the profiles in Figure 4, this change was in the desired direction.

Participant Evaluation of Project

During the last seminar, a participant seminar evaluation instrument was distributed. After explanations were provided, participants were asked to complete the instrument thoughtfully and subsequently return it by mail. Thirty were received and analyzed. A detailed summary of the results is provided in Appendix K. Highlights of these findings include an overwhelming endorsement of the usefulness, both to existing and anticipated professional roles, of the seminars. In fact, only a total of three (of a possible 240 responses) individual "not useful" ratings were ascribed to the seminars.

Clearly this high assessment could be attributed to the seminar focus on providing information and skills useful to practitioners. This conclusion is supported by the participants' ranking of the seminar topics of proposal writing, vocational education planning, and special needs education, as the most useful. Careful selection of project consultants was rewarded by this feedback, and also by the participants' rating of consultants. On a four point scale, all consultants were rated between 3.38 and 3.61 (4.00 being high). The effectiveness of the project director and the Advisory Council were similarly ranked with comparable ratings (3.75). Perhaps the most telling indicator of the project's overall success in the participants' eyes is revealed by their response of 3.79 (4.00 high) to the question, "Would you take another course that was taught this way?"

Figure 4: Pre- and Post-Test Performance Profiles

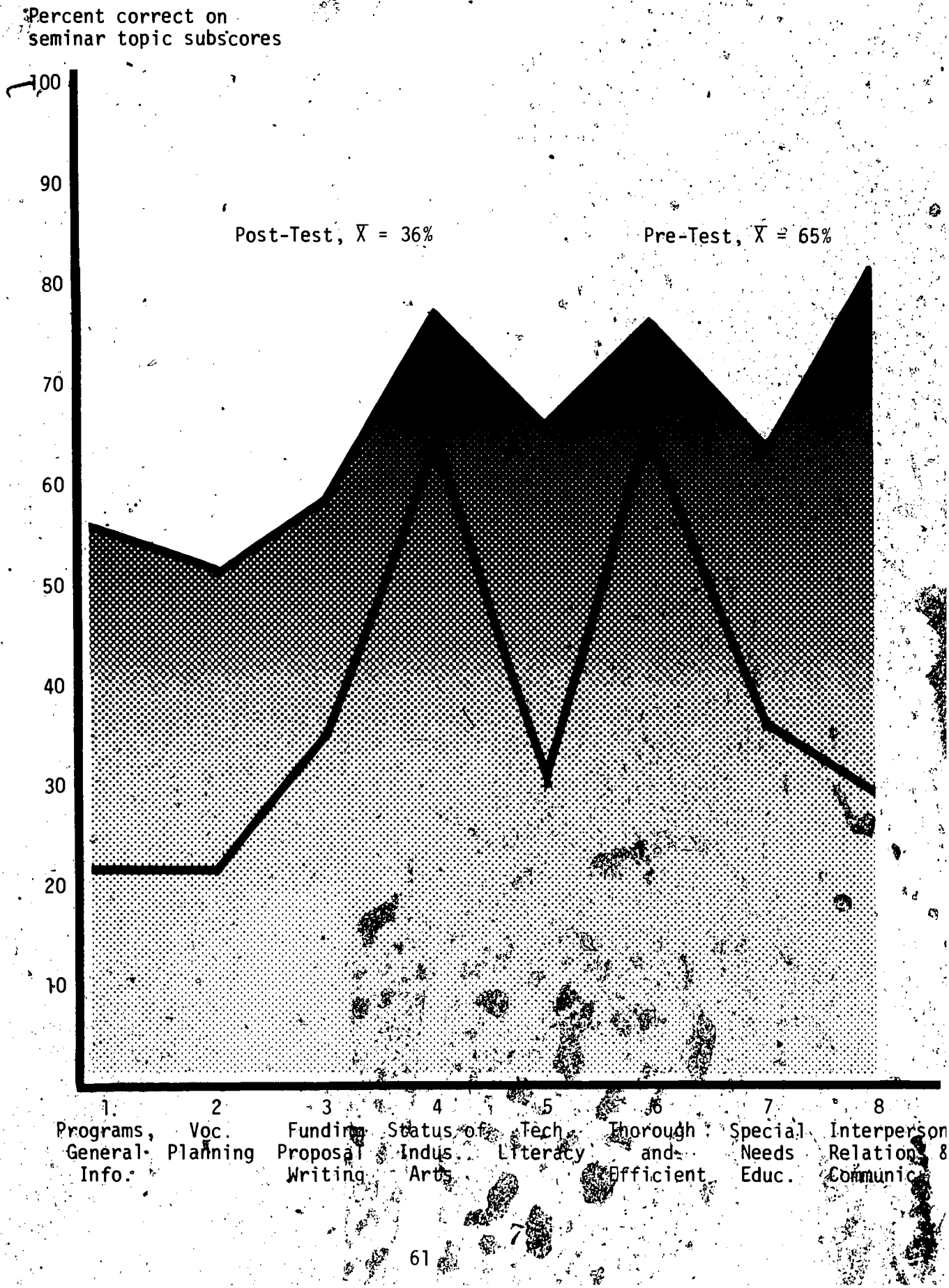

Table 9

Student Pre- and Post-Test Performance

Student*	Pre-test % correct	Pre-test rank	Post-test % correct	Post-test rank	Raw score pre-test	Raw score post-test	Pre/Post-test % gain	Gain rank	
1	31	15	55	20	20	97	24	17	Pre-test average = 36%
2	47	5	49	22.5	30	86	2	24	Post-test average = 65%
3	42	7	74	7	27	131	32	10	Pre/Post score correlation = .33
4	42	7	72	9	27	127	30	12	
5	38	11	70	10.5	24	124	32	10	Pre-test versus gain = -46 Correlation =
6	52	2	79	4	33	139	27	15	
7	44	-	-	-	28	-	-	-	
8	50	35	54	21	32	95	4	23	
9	25	195	81	3	16	143	56	1	
10	30*	-	-	-	19	-	-	-	
11	42	7	74	7	27	131	32	10	
12	31	15	60	15.5	20	106	29	13	
13	28	17.5	70	10.5	18	124	42	4	
14	22	23.5	49	22.5	14	86	27	15	
15	25	-	-	-	16	-	-	-	
16	34	13	57	19	22	100	23	18.5	
17	23	21.5	32	24	15	57	9	22	
18	39	10	82	2	25	145	43	3	

*Random Listing

Table 9--Continued

Student	Pre-test % correct	Pre-test rank	Post-test % correct	Post-test rank	Raw score pre-test	Raw score post-test	Pre/Post-test gain	Gain rank
19	50	3.5	77	5	32	136	27	15
20	31	15	66	12	20	117	35	7.5
21	25	19.5	60	15.5	16	106	35	7.5
22	22	23.5	58	18	14	103	36	6
23	61	1	74	7	39	131	13	21
24	36	-	-	-	23	-	-	-
25	23	21.5	64	13	15	113	41	5
26	28	17.5	83	1	18	147	55	2
27	41	9	63	14	26	111	22	20
28	36	12	59	17	23	104	23	18.5
29	-	-	76	-	-	135	-	-
30	-	-	77	-	-	136	-	-
31	-	-	53	-	-	94	-	-
32	-	-	63	-	-	112	-	-
33	-	-	67	-	-	119	-	-
34	-	-	64	-	-	114	-	-
35	-	-	-	-	-	-	-	-

Table 10

Overall Participant Performance

by Topic Subscore and Ratings

Seminar	Pre-test % correct	Post-test % correct	Pre-test rank	Post-test rank	Pre-Post gain	Gain Rank	Rank most useful to existing pos.	Rank most useful to antic. pos.	Rank, overall usefulness	Consultant rank
1: Programs, General info.	32	56	7.5	7	34	3	-	-	-	-
2: Vocational Planning	22	51	7.5	8	29	4	4	5	2	1.5
3: Funding, Proposal Writing	35	58	4	6	23	6	1	1	1	5
4: Status of Industrial Arts	63	77	2	2	14	7	2	2	6	3
5: Technological Literacy	30	66	5.5	4	36	2	3	7	4.5	4
6: Thorough and Efficient	65	76	1	3	11	8	5.5	3	4.5	6.5
7: Special Needs Educ.	36	63	3	5	27	5	5.5	4	3	1.5
8: Inter-personal Relations & Communications	30	82	5.5	1	52	1	7	6	7	6.5

With respect to the extent to which the project attained its original objectives, the participants reported the objectives referring to: vocational education planning, legislation, status of industrial arts, information resources, and professional interaction as being attained best. Minority relations, sex equity, and needs assessment procedure related objectives were ranked as achieved to the lowest degree (2.46-2.72 with 2 representing moderate attainment).

The project's negative feedback amounted to, in the author's interpretation, comments that best fit the descriptor of "feedback that was less positive than the rest." Essentially such participant comment focused on travel, scheduling, and time-based decisions. All comments were initially dealt with during Advisory Council meetings and most involved "trade-off" decisions where a dichotomous choice could not be made. Examples thereof included the siting of seminars with respect to north/south location; the length of seminars versus the amount of discussion; and the amount of information versus the scope of the seminar.

The aforementioned comments, notwithstanding, the seminar series can only be described as successful. Participants' comments on the "open response" portion of the instrument document this judgement. These remarks ranged from desire for repeat seminars, favorable evaluations, continuations, and appreciation. Provided to give the reader some insight into participant feelings, and thereby end this reporting of participant project evaluation, the reader should note these freely given remarks.

> "This was the kind of course needed if we are to improve the image of industrial arts at state and national levels."
>
> "This project has been the most relevant and professionally enriching graduate experience I have ever had."

Budget/Management Analysis

Detailed information pertaining to the summary of this project's financial aspects may be obtained by consulting MIS document #07D002 as filed for Project SEP G005 by Dean Michael Puglisi of Montclair State College. Two budget categories were underspent, according to the budget approved by the Division of Vocational Education, and one was overspent. These unforeseeable requirements were somewhat counterbalancing in nature and their small magnitude ($286, $114, $118) represents careful attention by both project director and project monitor. Overall, the project resulted in expenses that totaled $54 less than the awarded budget.

Generally, all parties involved in the administrative process were more than helpful. One significant problem did clearly emerge. This difficulty referred to results from the apparent incompatibility between the budgetary procedures of the State Department of Education and those of the State Department of Higher Education. These involve a combination of deadlines and policies that simply creates its own difficulties. Considerable credit is due to Montclair State College's Dean Puglisi for creating a situation wherein the

administrative needs of this project were met. Fortunately, it seems that such matters as the lag in receiving awarded funds are currently being addressed and it is reasonable to anticipate the evolution of mechanisms which do not necessitate such extensive direct administrator intervention.

-- CONCLUSIONS AND RECOMMENDATIONS --

Perhaps the best concluding remark would be to refer the reader to Appendix K. There a group of dedicated professionals provided their thoughtful insights as to this series of seminars. Without fear of contradiction, one can clearly conclude that the experience lived up to the title of the funding source: Professional Development! Participant evaluations, gain scores, and the similarities between the needs assessment profiles and the seminar topics all document the conclusion that the participants shared a learning experience that targeted on the needs of the profession in New Jersey.

As project director, this author was most gratified by the dedication of all involved--participants, consultants, and the Advisory Council alike. While it would be presumptuous to attribute the vocational community's increasing spirit of cooperation solely or even largely to this project, nevertheless it did play a vital part in assisting the industrial arts profession to recognize the realities of a full spectrum vocational education delivery system. Throughout the project, industrial arts--vocational education interactions were explored and constructively addressed. The ensuing understandings were largely due to the extensive interaction of college-school-State Division of Vocational Education professionals as enabled by this project. Continued access to current information and such face-to-face interaction and in-depth probing is vitally necessary if New Jersey's industrial arts/vocational education profession is to maintain and increase the services rendered to its charges.

Another desirable result from this project was the opportunity for ongoing interaction among: participants, teachers and students, professors, and Vocational Division personnel. Combined with the stratification of project participants, this diversity was even further augmented by the inclusion of consultants that provided a national association/profession perspective. This seminar series provided the vehicle for a melding of these influences into a growing wave of professional commitment. The project's value is best observed in the future actions of its participants and in the momentum of the profession as its leadership begins to reach the proportions of critical mass necessary to meet the challenges of inculcating technological literacy in New Jersey.

Participant enthusiasm as well as the crucial needs of New Jersey's youth both call for further action. Drawing from the experience of this project, one can certainly recognize the call for future experiences of a similar nature. In fact, it would seem that an annual seminar would provide a highly desirable rejuvenation/advancement for many and, with over 3,200 professionals in the field, it would seem to be needed merely to accommodate updating/briefing needs of turnover and inflow cases. Even more immediate is the need to repeat this type of intensive professional experience specifically for the group of supervisors that are currently charged with the responsibility of leading our profession through the jungle of administrative regulations, financial incursions, and the ever increasing demands of our technological society. Another topic most suited to the attentions of yet a further seminar series would be the

delivery of full spectrum vocational education to the youth of our urban cores. Even beyond such extensive treatments of overall professional development, this project substantiated the continuing need for intensive one-day workshops that deal with single focus issues/events/needs in depth. Safety and/or any of its subtopics, T and E instrumentation, industrial arts--basic education linkages, industrial arts--YEDPA interactions, and county matrix incorporation are all representative of issues/needs that could be productively addressed by well supported and executed one-day workshops.

Regardless of the specific roads taken towards the future, its mandate is clear: the industrial arts profession must take action and confront its challenges--purposefully, directly and with all the dedication it can muster. Throughout this continuing effort, New Jersey's industrial arts professionals have the reassurance of knowing that their colleagues in other states and the members of the American Industrial Arts Association and the Industrial Arts Division of the American Vocational Association are sharing this task. Together with their counterparts in Vocational Divisions of the State Education Departments, all are engaged in evolving a delivery system of increased quality and performance capability. To the extent that the participants and this project contributed to such an enhanced system, to that extent can we take pride in our efforts--and no more!

Appendix A

Industrial Arts Standard and Substandard Certification Data*

	Certifications Issued			
	Substandard		Standard	Total
	New	Renewed		
1973-1974	40	37	316	393
1974-1975	57	50	344	451
1975-1976	23	105	330	458
1976-1977	15	51	341	407

*Abstracted from the New Jersey State Department of Education, Division of RP and E/Field Services, Teacher Education and Academic Credentials Section's reports entitled: Summary of Authorization; 1974, 1975, 1976, 1977.

Appendix B

Participant Nomination Materials

1. Solicitation letter to superintendents and county career coordinators
2. Solicitation letter to Education Improvement Center directors
3. Nomination form
4. Resumes were also requested of candidates
5. Participant Data Form*

*Item 5 was completed only by nominees subsequently selected to participate

industrial arts leadership development project

January 4, 1978

TO: All New Jersey superintendents, and county career coordinators

FROM: Michael J. Dyrenfurth, Ph.D.
IALDP Director

RE: Nominations for Industrial Arts Leadership Development Seminars

Your help is urgently requested in recommending one or two outstanding industrial arts educators in your district. These nominees will form a statewide pool from which 35 candidates will be selected to participate in a series of seminar/workshops (approximately one per month, February-June). Made possible by a professional development grant from New Jersey's Division of Vocational Education, these seminars will feature outstanding national and state experts on a variety of topics crucial to the development of IA's capability in the state's vocational education delivery system.

Nominees may include outstanding IA teachers, department chairpersons, and/or supervisors. Where appropriate, minority and/or candidates with limited English capability may be advanced and in fact are encouraged (the project features special provisions to enhance their success).

It is anticipated that the seminar will carry three graduate credits and that tuition will be waived for the participants. Key topics may be found on the enclosed nomination form. Highlights include: Industrial Arts and the Thorough and Efficient Mechanism; special needs education; proposal and grant writing; and vocational planning in New Jersey. Project planning and execution is a joint effort of the advisory council listed below in conjunction with the Industrial Arts Education Association for New Jersey.

Please consider the time you expend in advancing these nominations as an investment in your faculty's professional development, and I am certain that their increased capabilities will positively contribute to the quality of IA programs and student achievement in your district.

Thank you for your cooperation!

Project Director

Michael J. Dyrenfurth, Ph.D.
Department of Industrial Education & Technology
Montclair State College
Upper Montclair, New Jersey 07043
(201)893-4165/4161

iald industrial arts leadership development project

January 11, 1978

TO: All EIC Directors

FROM: Michael J. Dyrenfurth

RE: Industrial Arts Leadership Development Project

The enclosed information is being sent to your information and action. Requested is your support in encouraging appropriate action on the part of your district superintendents, coordinators, supervisors and staff. Specifically please:

1. Encourage all superintendents (perhaps at your round table) to select the best possible candidates.

2. Provide the project with needed visibility by alerting your staff to objectives and events so that they in turn can inform the project director and/or the advisory council as to relevant activities occurring under their sponsorship.

3. Have your staffs alert IA professionals as to the existence of the project.

Thank you for your cooperation in this matter, and please do not hesitate to contact us should you desire any additional information.

Enclosure

Project Director

Michael J. Dyrenfurth, Ph.D.
Department of Industrial Education & Technology
Montclair State College
Upper Montclair, New Jersey 07043
Office: (201)893-4165/4101

industrial arts leadership development project

NOMINATION FORM
(please submit by January 23)

Candidate 1

Name _____ Home Phone _____

School Address _____ School Phone _____

Position with system/school _____

Candidate 2

Name _____ Home Phone _____

School Address _____ School Phone _____

Position with system/school _____

Name and position of nominator _____

Telephone _____

This is an equal opportunity project. . . . . women, minorities, and/or candidates with limited english capability are encouraged.

Please mail the completed form to the Project Director at the address below.

Project Director

Michael J. Dyrenfurth, Ph.D.
Department of Industrial Education & Technology
Montclair State College
Upper Montclair, New Jersey 07043
Office 201/893-4165/4161

industrial arts leadership development project

PARTICIPANT DATA FORM

Name: _____

Address: _____ Telephone & AC: _____

_____ Zip: _____

School: _____

Address: _____ Telephone & AC: _____

_____ Zip: _____ County: _____

Position: _____ Grades: _____

Subjects Taught: _____

Direct Supervisor: _____ Telephone & AC: _____

Years Teaching Experience: _____

Years Industry Experience: _____

Memberships: __AIAA __IAEA-NJ __NAVESNP __County IA Association

__AVA __VEA-NJ __NACE __NJEA __AFT/AFL-CIO

Other: _____

PERSONAL DATA (your response is optional but it would help us conduct an analysis)

__Male Ethnic Background: _____

__Female Age: _____

Colleges Attended/Degrees Achieved

_____

_____

List the professional achievements you are most proud of:

Appendix C

Course Description

MONTCLAIR STATE COLLEGE
UPPER MONTCLAIR, NEW JERSEY
INDUSTRIAL EDUCATION AND TECHNOLOGY
SCHOOL OF PROFESSIONAL ARTS AND SCIENCES

I. COURSE TITLE, CATALOGUE DESCRIPTION

0839 - 0599 Industrial Arts Leadership Development Seminar 3 S. Hrs.

Designed to develop and advance leadership skills, this invitational seminar for selected industrial arts professionals will tour N.J. Enabled by a grant from N.J. Division of Vocational Education, the seminar will: introduce participants to new and emerging issues in IA; augment leadership skills in communication and interpersonal arenas; sensitize each teacher to sex, racial and professional stereotyping and introduce destereotyping approaches.

Prerequisites: Nomination by superintendents/principals/supervisors and the project's advisory council, on the basis of evidenced leadership and potential. Bachelor's degree.

II. AIMS OF COURSE

To expand the cadre of well-informed leaders willing to act as advocates for the industrial arts profession.

III. SPECIFIC OBJECTIVES OF THE COURSE

A. To develop a cadre of leaders that will serve as an expanded nucleus for the industrial arts profession's thrust into the 1980's.

B. To identify potential newcomers to the leadership group in an effort to expand its present size to a minimum of 3% of the total industrial arts teacher population.

C. To develop a mechanism for infusing women, minority group members and persons with limited English capability into the cadre of leaders.

D. To develop a mechanism whereby the leader/participants are given an opportunity to communicate regularly, both among themselves and with other key groups (e.g. state department personnel, industry and community representatives and the like).

E. To increase the competencies of those identified and selected in the areas of:
1. Their knowledge of the state's vocational education planning cycle.
2. Their knowledge of the status of industrial arts and vocational education in New Jersey.
3. Their knowledge of federal laws and regulations relevant to industrial arts and vocational education in New Jersey.
4. Their knowledge of the evaluation and accountability mechanisms incorporated into vocational education and T & E.
5. Their ability to deal with minorities and with persons of limited English speaking ability.
6. Their ability to discern sex-bias/stereotyping and to develop plans of action to eliminate it.

7. Their ability to develop evaluation systems ranging from needs assessment through formative in-process measures, to formal and informal outcome or summative measures.
8. Developing and disseminating public and professional information through a variety of media/vehicles.
9. Interpersonal skills and human relations.
10. Identifying and assessing resources necessary to achieve the aforementioned objectives.

IV. CONTENT AND SCOPE OF THE COURSE

A. Orientation/Introduction
1. Project staff introductions.
2. Participant introductions.
3. Advisory Council Role.
4. Goal description and delineation.
5. Overview of Procedure/Sessions.
6. Scheduling of Events.
7. Available Resources.

B. Vocational Education Planning in New Jersey
1. Key legislation/regulations/and policy.
2. State plan for vocational education
   a. So what?
   b. Development timeline.
   c. Comparisons to other state plans.
   d. IA identification in plan.
3. Advocacy: Hearings, testimony, position statements.
4. The role of professional associations.
5. Professional memberships/activity.

C. Technology
1. IA's role in developing technological literacy.
2. The future and future studies: How does IA fit?
3. The basic skills thrust: Where does IA fit?

D. Status of IA: New Jersey and the Nation
1. National Perspective.
2. Philosophy and goals: State and national approaches.
3. Details of IA's status in N.J.
4. Public relations: Community and in-school.
5. Industry's role.

E. Funding Skills/Proposal Writing
1. National and state overviews.
   a. What laws?
   b. What deadlines?
   c. Resource people.
2. Federal regulations and publications.
3. Samples of successful proposals.
4. Suggestions and hints: How to write the proposal.
5. The next step: Planning for 78-79.

F. Thorough and Efficient Concerns Pertinent to IA.
   1. State Department of Education and/or the Division of Vocational Education roles.
   2. The planning process.
   3. Goals, objectives and indicators.
   4. Budget planning: Program oriented budget (POB).
   5. EIC Roles.
   6. Accountability: Who, what, when and why, onsite monitoring.

G. Interpersonal Relations: Strengthening your Skills
   1. Your professional development.
   2. Career ladders for IA educators.
   3. Leadership: Can you do anything about it?
   4. Sex stereotyping.
   5. IA stereotyping.
   6. Motivation: Personal and other.

H. Special Needs Education and Industrial Arts
   1. New laws.
   2. Compensatory education: Needs and problems.
   3. Data collection.
   4. Status in N.J.
   5. Public relations - community and in school.
   6. Teaching materials - sources - samples.

I. Open Session - Save for Last
   1. IA role in career education.
   2. Present programs.
   3. Validated title IV with projects.
   4. Use of CETA funds.
   5. State plan.

V. PROCEDURES, TECHNIQUES AND METHODS

The seminar's delivery system will consist of a minimum of eight sessions held throughout the state at sites both appropriate to the topic as well as to insure geographic coverage. Key facilities such as the State Department of Education, the N.J. Occupational Resource Center, State College IA Departments, selected EIC's and outstanding public schools will be chosen as seminar sites.

Instructional techniques will run the gamut of normal college techniques ranging from lecture through demonstration to group processes fostering personal growth. Particular note should be given to the project's extensive use of expert consultants/guest lecturers with nationwide reputation. Tentatively planned are Willis Ray (President, American Industrial Arts Association), L. Alan Phelps (National Consultant and Author, IA for Special Needs population), Robert M. Nogueria (National Legislative Committee Chairman for the IA Division of the American Vocational Association), Paul Devore (Chief National Advocate for Technology Education), James E. Good (Chairman, IA Division Policy Committee).

Seminars will range from 3-7 hours in length depending upon the needs identified during the orientation session's needs assessment activity. Some tentativeness is required here because exact scheduling depends on the availability of the project's consultants (these high demand people are subject to some last minute changes) and to some extent that of the participants. In any case, a minimum of thirty hours of specific assignments, tailored to meet each participant's personal professional needs (as identified by the pretest) will be additionally assigned on a contractual basis similar to the existing independent study arrangement. Typical examples of such activities could include: Presenting testimony at formal vocational Education Plan hearings, Researching key issues, Developing position papers, compiling/analyzing professional statistics etc.

These thirty hours of contracted activity in combination with the thirty hours of formal, whole group seminars (as well as the preparation that the latter will necessarily entail) will clearly meet established college credit hour guidelines. Additionally, the project director will be available for an hour before and after each session (also by appointment) to provide the guidance, feedback, and direction necessary to achieve the objectives of each participant's contract.

VI. INSTRUCTIONAL MATERIALS

Professional Journals, reprints, selected portions of text, consultant supplied materials.

VII. BASIC REQUIREMENTS FOR COMPLETION OF COURSE

Regular attendance, preparation for each session's topic, active participation, and a major project as contracted towards personal goals

VIII. BIBLIOGRAPHY

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N.J. Annual Description of Vocational Education Activities. Trenton, N.J.: Division of Vocational Education, 1975-77.

PL 94-482 Education Ammendments of 1976.

PL 94-142 Education of the Handicapped.

Federal Register, Sections interpreting above laws.

Selected American Industrial Arts Association publications, testimony, position papers and the like.

Selected American Vocational Association documents as above.

Industrial Arts Education Association of N.J. Position Statements & Formal Testimony Presented by Dyrenfurth, Hanisch and Noguerla.

IX. BASIC TEXT

None. Each participant will compile a binder of all materials.

Appendix D

Seminar Pretest Instrument

Industrial Arts Leadership
Development Seminar, Spring 1978

name

Please note that this instrument will be used only for purposes of tailoring the following seminars to your needs and to your present level of understanding of the industrial arts scene in New Jersey. This assessment will not affect your grade!

Answer each question briefly! Do not dwell on any single item. For those questions where you "draw a blank," simply insert DN (for don't know).

Be sure to place your name at the top of this page.

1. The term industrial education typically subsumes the programs of (name at least four):

2. Match the following associations to their benefits:

___ M/S/T	a. American Vocational Association (AVA)
___ AV Journal	b. National Association of Industrial and Technical Teacher Educators (NAITTE)
___ Journal of Industrial Teacher Education	c. Industrial Arts Education Association of New Jersey (IAEA-NJ)
___ Teacher Education Directory (IA)	d. Vocational Education Association of New Jersey (VEA-NJ)
___ State IA Newsletter	e. American Industrial Arts Association (AIAA)
___ State Vocational Newsletter	f. NJ Department of Education
___ Interact	

3. Identify the three new (passed within the last two years) items of legislation (federal) with major potential for impact on industrial arts.

4. Should you have a major disagreement with the State Plan for Vocational Education, where can you have your comments entered into the record publicly?

5. What is the major implication, of the new federal education of the handicapped law, for industrial arts?

6. What is an IEP?

7. What percentage of federal vocational education money, as received by New Jersey, is to be expended in the education of the handicapped?

8. Identify five classifications (types) of handicapped children:

9. Name three typical programs, in the vocational/industrial arena, designed to serve New Jersey's handicapped students:

10. What is the name of the group responsible to assess the special needs of school-age youngsters?

11. Name three funding sources for industrial arts programs:

12. Name your county's career education coordinator:

13. What six main items/sections should generally be included in all proposals?

14. What are the main differences between the RFP process and the county course funding process?

15. For years the AVTS were funded through federal and state monies. How can industrial arts qualify for this same money?

16. Where can you find the specific requirements for the T & E process?

17. Does the T & E process mandate the offering of industrial arts in the junior high schools?

___ yes ___ no

18. Can the T & E law be used to exclude females from industrial arts?

___ yes ___ no

19. Can the T & E process be used to strengthen industrial arts programs in the local schools? How?

___ yes ___ no

20. Where can technical assistance be found for working with the T & E process?

21. What is Title 9 of the Education Amendments of 1972 concerned with? Circle the correct choice.

Handicapped Disadvantaged Sex bias, etc., Minorities

22. Does industrial arts have a role in employment orientation programs for the handicapped?

___ yes ___ no

23. Does the 1977-1978 NJ State Plan for Vocational Education include an allocation of funds for industrial arts education?

___ yes ___ no

24. Under the new legislation, does industrial arts have a role in the vocational family that includes personnel training, research, career exploration, and curriculum development?

___ yes ___ no

25. Under the NJ State Plan for Vocational Education, can a comprehensive high school receive funding for a vocational program that meets the vocational minutes-per-week and teacher certification requirements?

___ yes ___ no

26. Who can you telephone to get specific information on safety regulations, RFP deadlines, sources of program help, etc.?

27. How is industrial arts threatened by the "back to basics" and/or compensatory education thrust?

28. Which of the following committees is the one charged with the responsibility for drafting the State Plan for Vocational Education?

___ 1202 Commission
___ NJ Advisory Council on Vocational Education
___ State Board for Education
___ State Board for Vocational Education
___ Ad Hoc Committee for the State Plan of Vocational Education (107 committee)
___ Vocational Education Association
___ Division of Vocational Education

29. Name five major curriculum/resource centers in New Jersey and list the location (town) for each:

30. What associations are the two major national voices for industrial arts?

Appendix D

Seminar Pretest Instrument

Industrial Arts Leadership
Development Seminar, Spring 1978

name _____

Please note that this instrument will be used only for purposes of tailoring the following seminars to your needs and to your present level of understanding of the industrial arts scene in New Jersey. This assessment will not affect your grade!

Answer each question briefly! Do not dwell on any single item. For those questions where you "draw a blank," simply insert DN (for don't know).

Be sure to place your name at the top of this page.

1. The term industrial education typically subsumes the programs of (name at least four):

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___ Teacher Education Directory (IA)	c. Industrial Arts Education Association of New Jersey (IAEA-NJ)
___ State IA Newsletter	
___ State Vocational Newsletter	d. Vocational Education Association of New Jersey (VEA-NJ)
___ Interact	e. American Industrial Arts Association (AIAA)
	f. NJ Department of Education

3. Identify the three new (passed within the last two years) items of legislation (federal) with major potential for impact on industrial arts.

4. Should you have a major disagreement with the State Plan for Vocational Education, where can you have your comments entered into the record publicly?

5. What is the major implication of the new federal education of the handicapped law, for industrial arts?

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9. Name three typical programs, in the vocational/industrial arena, designed to serve New Jersey's handicapped students:

10. What is the name of the group responsible to assess the special needs of school age youngsters?

11. Name three funding sources for industrial arts programs:

12. Name your county's career education coordinator:

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18. Can the T & E law be used to exclude females from industrial arts?

___ yes ___ no

19. Can the T & E process be used to strengthen industrial arts programs in the local schools? How

___ yes ___ no

20. Where can technical assistance be found for working with the T & E process?

21. What is title 9 of the Education Ammendments of 1972 concerned with? Circle the correct choice.

Handicapped Disadvantaged Sex bias etc. Minorities

22. Does industrial arts have a role in employment orientation programs for the handicapped?

___ yes ___ no

23. Does the 1977-1978 NJ State Plan for Vocational Education include an allocation of funds for industrial arts education?

___ yes ___ no

24. Under the new legislation, does industrial arts have a role in the vocational family that includes personnel training, research, career exploration, and curriculum development?

___ yes ___ no

25. Under the NJ State Plan for Vocational Education, can a comprehensive high school receive funding for a vocational program that exempts the vocational minutes-per-week and teacher certification requirements?

___ yes ___ no

26. Who can you telephone to get specific information on [illegible] RFP deadlines, sources of program help, etc?

27. How is industrial arts threatened by the "back to basics" - compensatory education thrust?

28. Which of the following committees is the one charged with the responsibility for drafting the State Plan for Vocational Education?

___ 1202 commission
___ NJ Advisory Council on Vocational Education
___ State Board for Education
___ State Board for Vocational Education
___ Ad Hoc committee for the State Plan of Vocational Education (107 committee)
___ Vocational Education Association
___ Division of Vocational Education

29. Name five major curriculum/resource centers in New Jersey and list the location (town) for each:

30. What associations are the two major national voices for industrial arts?

Appendix E

Needs Assessment Instrument

Industrial Arts Leadership
Development Seminar, Spring 1978

name _____

NEEDS ASSESSMENT

1. In column A, select and rank the ten most important items/topics (being the most important/crucial/urgent and ranking the least) in your industrial arts situation. In column B, respond with respect to what you perceive should be the priority in the State of New Jersey. Please do not use tied ranks.

A Personal Need	B State Needs	
___	___	Knowledge about the state's vocational planning cycle
___	___	Knowledge of what associations are doing
___	___	Sources of funding/grants
___	___	How to write proposals
___	___	General IA - VE information, sources, materials
___	___	County vocational education funding matrices and procedures
___	___	CETA procedures
___	___	Status of IA in NJ and the nation
___	___	Update on IA/VE philosophy and objectives
___	___	Public relations ideas and methods
___	___	IA's link to technological literacy and basic skills
___	___	IA and "futures" study
___	___	Knowledge of T & E procedures
___	___	IA and career education
___	___	ERIC activities and resources
___	___	Program oriented budgeting
___	___	Knowledge of state and federal departments/ divisions of education
___	___	Basic legislation with respect to IA, VE, and special education
___	___	Knowledge of ways of dealing with special education students in IA
___	___	Destereotyping (racially/sexually)

2. In your own words, specify the single most important/crucial problem/need/concern facing your school's industrial arts program:

3. For you personally, specify the two most important outcomes you wish to achieve through these seminars. (What do you want to get out of the seminars?)

Appendix F

Documents Distributed to Participants

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Appendix G

Seminar Posttest Instrument

Industrial Arts Leadership
Development Seminar, Spring 1978

name _____

POSTTEST

In all cases select the best of the listed alternatives, regardless of whether it represents an absolute truth or correct statement.

In those cases where you may feel that multiple answers would best answer a question you may do so.

Answer each question briefly! Do not dwell on any single item. For those questions where you "draw a blank", simply insert DN (for don't know).

Be sure to place your name at the top of the page.

1. The term industrial education typically subsumes the programs of (name at least four) :

2. Match the following associations to their benefits:

___M/S/T	a. American Vocational Association (AVA)
___AV Journal	
___Journal of Industrial Teacher Education	b. National Association of Industrial and Technical Teacher Educators (NAITTE)
___Teacher Education Directory (IA)	c. Industrial Arts Education Association of New Jersey (IAEA-NJ)
___State IA Newsletter	
___State Vocational Newsletter	d. Vocational Education Association of New Jersey (VEA-NJ)
___Interact	e. American Industrial Arts Association (AIAA)
	f. NJ Department of Education

3. Name your county's career education coordinator:

4. Who can you telephone to get specific information on safety regulations, RFP deadlines, sources of program help, etc.?

5. Name five major curriculum/resource centers in New Jersey and list the location (town) for each:

6. What associations are the two major national voices for industrial arts?

7. Name three funding sources for industrial arts programs:

8. What six main items/sections should generally be included in all proposals?

9. What were the main differences between the RFP process and the county course funding process?

10. Match the names to the position:

___Richard Callan	a. Chairman of Kean College's Industrial Science Department
___Stanley Grajewski	b. Executive Director of the American Vocational Association
___William Wenzel	c. President of the American Industrial Arts Association
___Thomas McNulty	d. Chairman of the NJ Advisory Council on Vocational Education
___Donald Rathbun	e. NJ Director for IA
___James Good	f. NJEA Director of the Instruction Division
___Willis Ray	g. NJ Division of Vocational Education Professional Development Director
___Gene Bottoms	h. NJ Supervisor for IA
___Rudolph Girandola	i. Chairman of IE&T at Glassboro State College
___Charles Rosen	j. State Director for Vocational Education
___Harold Seltzer	k. Director of the Bureau of Special Programs
___Dianne Schreyer	l. Deputy Assistant Commissioner for VR
___Joseph Kelly	m. N.J. Specialist for Career Education
___John Cummings	n. Director of Bureau Occupational and Career Research Development
___Marvin Habas	o. Executive Director of the American IA Association
___William Smith	p. Chairman of Trenton State College's Industrial Arts Department
___George Olsen	q. President Elect of the American Industrial Arts Association
___Russell Kruppa	r. Executive Director of the N.J. Advisory Council on Vocational Education
___Edward White	s. Director, Federal Grants Management
___Glenn Thatcher	t. Chairman of the Department of Industrial Education and Technology at Montclair State College
___Norman Goldman	u. President, Industrial Arts Education Association of New Jersey
___Edd Fitzgerald	v. Director of Facilities & Safety for the Division of Vocational Education
	w. Not Defined

11. Under the new legislation, does industrial arts have a role in the vocational family that includes personnel training, research, career exploration, and curriculum development?

___ yes ___ no

12. "Proposal Paralysis" is best overcome by:

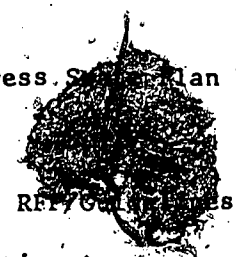
a. Going ahead anyway
b. Further research and background effort
c. Involving colleague with some successful grants experience
d. Requesting assistance from a private grantsmanship agency

13. Local receipt of Vocational R.F.P. funds is contingent upon local matching of dollars.
    a. true
    b. false
    c. While not true, matching is frequently an asset in proposal evaluation
    d. This varies depending on the R.F.P. category

14. Rank order the likehood of IA program/activity funding from the following sources (use 1 and 2 for the most likely, LP for low probability) :
    ___ Vocational Education Support Services
    ___ Vocational Education Basic Grant (County Matrix)
    ___ Career Education Incentive Act
    ___ Education of the Handicapped Act
    ___ ESEA

15. According to the R.F.P. book, In the IA category Vocational funds were permissible for:
    a. Teacher salaries
    b. Supplies
    c. Equipment
    d. Workshop time
    e. Curriculum Development

16. Vocational proposals are typically judged:
    a. By a system of independent readers
    b. By their ranking as to the degree to which they address S[illegible]lan Needs
    c. By the opinion of the N.J. Director of V.E.
    d. By "political pull"
    e. By the clarity of their exposition
    f. By their conformity to the criteria specified in the RFP/G[illegible]es



17. Identify what the following councils/organizations/association Acronyms represent by selecting appropriate terms from the list in parenthesis and writing them on the line beside each acronym:

    (American, Arts, Association, College, Council, Division, Education, Educators, Elementary, Industrial, National, Officer, Research, School, State, Student, Teacher, Technical, Vocational)

    AIAA: American Industrial Arts Association

    ACESIA: _____

    ACIAS: _____

    ACIASAO: _____

    ACIATE: _____

    AIACSA: _____

    AIASA: _____

    AVA-IAD: _____

    AVERA: _____

    IAEA-N.J.: _____

    N.J. EA: _____

    VEA-N.J.: _____

18. Categorize the following statements as true or false:

True	False	
____	____	There are 30,000 to 100,000 students in N.J.'s Industrial Arts laboratories (K-12).
____	____	Nationwide IA enrolls approximately 6-8 million students (K-12).
____	____	AVA's IA division membership compares to AIAA membership in the ratio of 1500:8000.
____	____	Our profession's leadership generally advocates the continued existence of both the AVA's IA division and the AIAA.
____	____	Professional Association membership dues typically exceed the cost of servicing members by around 50%.
____	____	IA needs fewer high profile advocates to counteract existing confusion as to our purposes.
____	____	The AVA services and represents IA in addition to Home Economics, Agricultural Education, T&I, Business & Office Educ. and the like.
____	____	The objectives of IA as presented in the AIAA's "Blue Book" represent only one person's view since no national consensus ia available.
____	____	The AIAA currently is experiencing a critical budget position.
____	____	There are approximately 3,200 IA teachers in New Jersey.
____	____	The AIAA's presidency rotates randomly among representatives of Classroom teachers, Supervisors, Elementary Education Specialists, and Teacher Educators.
____	____	To better serve its membership, the AIAA organization includes councils, one each for: Supervisors (ACIAS), Elementary Education (ACESIA), Teacher Education (ACIATE), and State Associations (ACIASAO).
____	____	AIAA is instrumental in supporting the emergence of the American Industrial Arts Student Association.
____	____	IA programs are best organized as "feeder" programs for vocational skill training programs.
____	____	IA programs, by virtue of their objectives, have little or no significance for Adult/Postsecondary programs.
____	____	The IAEA-NJ is affiliated with the NJEA.
____	____	The IAEA-NJ is directly affiliated with the AVA IA Division
____	____	The IAEA NJ is affiliated with the VEA NJ
____		The IAEA NJ is directly affiliated with the AIAA

19 How is industrial arts treated in the "Basics" basics and compensatory education thrust?

20. In order to remain educationally viable and societally significant, IA must address itself to impacting directly on the technological literacy of our population:
    a. true
    b. false

21. Identify the major indicators that call for increased technological literacy in our society:
    a. increasing rate of change of technology
    b. increasing complexity of society and its problems
    c. increasing reliance on value based solutions regarding technological alternatives
    d. decreasing quality of life

22. Can the T & E law be used to exclude females from industrial arts?

    ____ yes ____ no

23. Where can you find the specific requirements for the T & E process?

24. Can the T & E process be used to strengthen industrial arts programs in the local schools? How?

    ____ yes ____ no

25. Does the T & E process mandate the offering of industrial arts in the junior high schools?

    ____ yes ____ no

26. Where can technical assistance be found for working with the T & E process?

27. Necessary with T & E is a system that:
    a. Monitors individual pupil progress towards each system goal
    b. Describes system goals in relationship to national goals
    c. Monitors system goal attainment in terms of monthly state goal trends
    d. Describes the relationship between system goals and the indicators used to judge progress towards the goals
    e. Monitors course goals in terms of student achievement on state-wide tests

28. A program should develop a [illegible] that [illegible] how it will systematically address one or more of the district's/community's list of educational goals.
    a. True
    b. False

29. Program oriented budget planning as envisioned will:

   a. Document the link between dollars and state programs
   b. Document the link between budget caps and programs
   c. Document each program's objectives and annually assign "0" dollars unless proven sucessful the previous year
   d. Document the link between each system's resources and the programs it chooses to implement
   e. All of the above

30. One's program rationale would typically be stronger if it addresses more than one of the district's/communitiy's educational goals.

   a. True
   b. False

31. Which of the following committees is the one charged with responsibility for drafting the State Plan for Vocational Education?

   ____ 1202 commission
   ____ NJ Advisory Council on Vocational Education
   ____ State Board for Education
   ____ State Board for Vocational Education
   ____ Ad Hoc committee for the State Plan of Vocational Education (107 committee)
   ____ Vocational Education Association
   ____ Division of Vocational Education

32. Under the NJ State Plan for Vocational Education, can a comprehensive high school receive funding for a vocational program that meets the vocational minutes-per-week and teacher certification requirements?

   ____ yes ____ no

33. Does the 1977-1978 NJ State Plan for Vocational Education include an allocation of funds for industrial arts education?

   ____ yes ____ no

34. For years the AVTS were funded through federal and state monies. How can industrial arts qualify for this same money?

35. Identify the three [illegible] within the last [illegible] years [illegible] legislation (federal) with major potential for impact on industrial a[illegible]

Should [illegible]
Education [illegible] have [illegible]
publicly?

37. What is the title 9 of the Educational Ammendments of 1972 concerned with? Circle the correct choice.

Handicapped Disadvantaged Sex bias etc. Minorites

38. Match the characteristics listed in column B to the titles listed in column A. Note that you may match more than one column B item to any column A law... But, no column B item may be used more than once!

Column A : Major laws	Column B : Characteristics/Features
____ Education Ammendments of 1976	A. Includes IA definition
____ Education of the Handicapped Act	B. Title 9 requires equal treatment regardless of gender
____ Comprehensive Employment and Training Act	C. Provides 20% of Federal VE dollars for support services
____ Education Ammendments of 1972	D. Requires IEP for certain students
____ Rehabilitation Act	E. Allows funding of some IA with VE dollars when included in state plan
____ Career Education Incentive Act	F. Provides for Department of labor Youth Programs which must be articulated with public schools
	G. Describes appeal procedures allowed by disputants involved in educating special students
	H. PL 94-482
	I. PL 93-380
	J. PL 95-207
	K. PL 93-112
	L. PL 94-142
	M. Refers to placement of students the "least restrictive environment"

39. Respond, by identifying as either true or false, to the statements pertaining to Federal Vocational Education Law as currently in exisitance

True False

Requires [illegible] set aside for post secondary education

Defines IA as identical to VE

Requires the evaluation of all [illegible] within a 5 year period

Allows states the option of [illegible] a 5 year plan for vocational education

Clearly specifies the minimum composition [illegible] planning for VE in any state

Provides funds [illegible] limited English [illegible]

40. What avenue(s) is/are available to interested parties who wish to provide input towards the initial formulation of the state's Vocational Education Plan?
   a. Letter to the Assistant Commissioner for Vocational Education
   b. Direct Submission to the Ad Hoc Planning Committee
   c. Input to the appropriate program specialist in the Division of Vocational Education, with request to forward as needed
   d. Contact with/Letter to individual on the section committee that represents your major area of proffessional involvement
   e. All of the above

41. Select the best description of the relationship between federal laws and the Federal Register.
   a. The Federal Register outlines opinions divergent to federal laws
   b. The Federal Register only outlines anticipated federal laws
   c. The Federal Register typically elaborates, amplifies and further specifies the requirements of the federal law
   d. The Federal Register simply provides federal law in an accessible format
   e. The Federal Register details the discussion and issues behind the implementation of federal law

42. Clarify the difference between federal authorization and federal appropriation of funds with respect to any law.

43. Identify the component(s) not necessarily required for an IEP:
   a. Statement of goals (annual)
   b. Summary of Diagnosis results
   c. Short Term objectives
   d. Funding mechanism for special programs
   e. Specification of services to be provided and duration
   f. Specification of Evaluation Criteria

44. Mainstreaming is the only acceptable instructional strategy according to the Education of the Handicapped Act.
   a. True
   b. False

45. The Education of the Handicapped Act requires that [illegible] classified students be involved in the development of an IEP.
   a. True
   b. False

46. Barrier-free standards would typically [illegible]
   a. The height of floor standing machine tools
   b. Inaccessible washing/clean-up facilities
   c. Detours in reaching specific laboratory areas
   d. Safety equipment positioned permanently for [illegible]
   e. Special equipment/Floor stands to enable handicapped [illegible] regular machines

47. What is an IEP?

48. The three major documents describing the plans for the Education of N.J.'s Special Needs students are:

a. N.J. Advisory Council on Vocational Education Report
b. State Plan for Education of the Handicapped
c. Governor's Report on Special Education
d. State Plan for Vocational Education
e. Vocational Rehabilitation Plan for N.J.
f. N.J. Plan for Career Education
g. N.J. Manpower Services Delivery Plan

49. Identify the person(s) not typically included in the standing membership of New Jersey's Child Study Teams.

a. Learning dissabilities teacher consultant
b. Social Worker
c. Psychologist
d. School Nurse
e. Teacher of the Handicapped
f. Teacher of Placement Area

50. Industrial Arts/Vocational Education Teachers have the legal right to be informed as to which of their students are classified as having special needs and to have access to their records:

a. True
b. False

51. Over the years, knowledge of student special needs classifications have typically proven of little value to IA teachers:

a. True
b. False

52. What is the major implication, of the new federal education of the handicapped law, for industrial arts?

53. What percentage of federal vocational education money, as received by New Jersey, is to be expended in the education of the handicapped?

54. Identify five classifications (types) of handicapped children.

55. [illegible] designed to serve [illegible]

[illegible]

57. Does industrial arts have a role in employment orientation programs for the handicapped?

____ yes ____ no

58. Identify the three most important communication characteristics one must be cognijant of to increase one's effectiveness before such groups as school boards:

   a. Body language
   b. Assertiveness
   c. Message clarity
   d. Timing
   e. Message content
   f. Political standing

59. Communications may be classified as:

   a. Upward and Downward
   b. Horizontal
   c. Specialist to specialist
   d. Specialist to lay person and vice versa
   e. All of the Above

60. Match the definitions in Column B to the terms in Column A.

Column A : Terms	Column B : Definitions
____ Advocacy	a. Based on appropriate, direct, self- and other enhancing, emotionally honest communication.
Assertiveness	b. Based on superior, anger and resentment provoking, other depreciating communication
Agressiveness	Based on communication that places one's position in contention with other causes and that increases the visibility of one's cause or profession
	Based on self [illegible] one's own feelings, self depreciating apologetic communication
	[illegible] communication [illegible]

[illegible]

   a True
   b False

[illegible] the one and hand. [illegible]

   a True
   b False

63. Identify two of the three major findings with respect to effective listening.

64. The State of New Jersey formally uses the term Vocational Education to:
   a. Refer to Industrial/Vocational training programs.
   b. Refer to post-secondary occupational training programs.
   c. Refer to any programs addressing one or more of the objectives in PL 94-482.
   d. Refer to traditional occupationally oriented programs providing entry level skills.
   e. Refer to CETA programs offered by public agencies.

65. Select the alternative that best describes the relationship betwee[illegible] and Vocational Education Objectives (as in PL 94-482):
   a. IA and VE objectives are incompatible.
   b. IA objectives are more restrictive than VE objectives.
   c. VE objectives provide only for job entry level training whereas IA objectives transcend this.
   d. Some IA objectives contribute to some VE objectives, but IA typically pursues a broader scope of objectives than VE.
   e. VE objectives pertain to the same grade levels as do IA objectives.

66. Industrial Arts for the elementary grades is essentially identical to Technology for Children (T4C).
   a. True
   b. False

Appendix H

Project Evaluation Instrument (by Participants)

Industrial Arts Leadership
Development Seminar, [redacted]ing 1978

name _____

[redacted]pant Evaluation of the Project

Please provide yo[redacted]es' and direct input as to the strengths and weaknesses of the [redacted]e seminar. Your candor will facilitate our evaluation of the [redacted]ect and it will undoubtedly be given great consideration as we [redacted] future professional development projects.

Because of the weight given to these results, please devote such time as is required to insure a careful and accurate report of your feelings!

---

1. Indicate the extent to which each of the listed seminars was useful to you in your EXISTING professional role. Use the code VU = very useful, U = useful, SU = slightly useful, NU = not useful.

Specify your existing position: _____	VU	U	SU	NU
Seminar 2: Vocational education legislation/planning				
Seminar 3: Proposal writing/funding				
Seminar 4: IA Today & Tomorrow: Status in [redacted] & USA				
Seminar 5: IA & Technology: Basic educati.....				
Seminar 6: T & E implicati... for IA.				
Seminar 7: Special education and IA...				
Seminar 8: Interpersonal relati...				

Indicat[redacted] the extent to which each of t[redacted] listed seminar[redacted] will be useful to you in your most likely ANTICIPATED future profes[redacted] role. Use the same code as above.

Specify your anticipated position:				
Seminar 2: [redacted]				
Seminar 3: [redacted]				
Seminar 4: [redacted]				
Seminar 5: [redacted]				
Seminar 6: [redacted]				
Seminar 7: [redacted]				
Seminar 8: [redacted]				

3. Identify at least the three most useful sessions of the entire seminar by indicating their rank in order of decreasing usefulness. Place a 1 before the most useful session, then a 2, etc.

Rank	Session
___	2. Vocational education legislation/planning (Good/Nogueira)
___	3. Proposal writing/funding (Cummings/Hanisch)
___	4. IA Today & Tomorrow: Status in NJ & USA (Ray/Snyder)
___	5. IA & Technology: Basic education (Mohan/White)
___	6. T & E implications for IA (Seltzer, Grajewski)
___	7. Special Education and IA (Hritz/Pinoli/Kruppa)
___	8. Interpersonal relations (Norris/Dyrenfurth)

4. The seminar series provided many documents, articles, reprints. With respect to this strategy:

A. What is your reaction to this approach?

B. Identify the most useful documents distributed.

C. Identify the least useful documents distributed.

5. To what extent did the advisory [illegible] to [illegible] project's success/failure?

6. What should be the composi[illegible] such a professional developmen[illegible] project.

[illegible] considered as consultants f[illegible] directions.

Name [illegible]

[illegible]

9. Insert the appropriate rating for each consultant on each criterion (row). Use the code: SA = strongly agree, A = agree, D = disagree, SD = strongly disagree.

	James Good	John Cummings	Willis Ray	David Mohan	Harold Seltzer	Stephan Hritz	Joseph Pinoli	Catherine Norris
a. Developed a comfortable intellectual climate								
b. Was interested in one's problems and questions								
c. Was well informed								
d. Utilized appropriate instructional strategies								
e. Presented interesting and useful information								

Comments:

10. Insert the appropriate rating for the project director, Michael Dyrenfurth, on each of the criteria (rows). Use the code: SA = strongly agree, A = agree, D = disagree, SD = strongly disagree

	SA	A	D	SD
a. Organized the seminar well.....				
b. Was interested in one's problems/questions.....				
c. Was well informed.....				
d. Utilized appropriate instructional strategies				
e. Identified appropriate consultant				
f. Identified appropriate seminar topics				
g. Provided useful documents in the form of handouts.....				
h. Conducted each session effectively				
i. Other:				

[illegible]

a. [illegible]
b. More valuable
c. Worth about the
d. Less valuable

12. With respect to the timing/scheduling of the sessions, what was your reaction to the meeting times and dates? Comment on preferred alternatives, other scheduling concerns, and give the reasons for your positions.

13. What is your reaction to rotating meeting sites? Comment on the locations, possible alternatives, etc.

14. With respect to your <u>overall assessment of the project</u>, please indicate your rating on each criterion. Use the code: SA = strongly agree, A = agree, D = disagree, SD = strongly disagree

	SA	A	D	SD
a. More courses should be taught this way.....	—	—	—	—
b. The course was interesting.....	—	—	—	—
c. Not much was gained by taking this course.....	—	—	—	—
d. There was not enough participation for this type of a course.....	—	—	—	—
e. The needs of the participants were not considered	—	—	—	—
f. The course material was too difficult.....	—	—	—	—
g. The course was poorly organized.....	—	—	—	—
h. I would prefer a different method of instruction	—	—	—	—
i. The pace of the course was too slow.....				
j. I would take another course that was taught this way.....				

k. What were the best things about this [illegible] project [illegible] of instruction, assignments, meeting, classmates, consultants, handouts, etc.)

l. What [illegible] of the same [illegible] etc.)

[illegible]

18. The seminar sought to achieve the objectives listed below. Please indicate the degree to which each objective was achieved. Use the code: VH = very high, H = high, M = moderate, L = low

	VH	H	M	L
a. To develop a cadre of leaders that will serve as an expanded nucleus for the industrial arts profession's thrust into the 1980's..............	___	___	___	___
b. To identify potential newcomers to the leadership group of the industrial arts profession..........	___	___	___	___
c. To develop a mechanism for infusing women, minority group members, and persons with limited english capability into the cadre of leaders............	___	___	___	___
d. To develop a mechanism whereby the leader/participants are given an opportunity to communicate regularly, both among themselves and with other key people......................................	___	___	___	___
e. To increase the competencies of the participants in the areas of:				
1. Their knowledge of the state's vocational education planning cycle.................	___	___	___	___
2. Their knowledge of the status of industrial arts and vocational education in NJ & USA	___	___	___	___
3. Their knowledge of federal laws and regulations relevant to IA and VE..............	___	___	___	___
4. Their knowledge of the evaluation and accountability mechanisms incorporated into VE as a result of T & E.....................				
5. Their ability to relate with minorities and with persons of limited english capabili[illegible]				
6. Their ability to discern and counter sex bias and stereotyping..........................				
7. Their ability to develop evaluation systems from needs assessment through outcome measures...........................				
8. Developing and disseminating public and professional information through a variety of media............................				
9. [illegible] skills and [illegible] relat[illegible]				
10. Identifying and accessing [illegible] information necessary....................				

[illegible]

20. The needs assessment conducted at the start of the seminar resulted in the summary of group rankings listed in the initial column. (Note that 1 = highest need, 7 = lowest)

Please indicate your CURRENT rankings of these needs in the column headed current:

		INITIAL	CURRENT
A.	Your perception as to PERSONAL NEEDS		
	1. How to write proposals 1		___
	2. Knowledge of T & E procedure.....2		___
	3. Sources of funding/grants.....3		___
	4. General IA/VE information.....4		___
	5. Providing for special education.....5		___
	6. Status of IA.....6		___
B.	Your perception as to STATE WIDE NEEDS		
	1. IA & Career education.....1		___
	2. Sources of funding/grants.....2		___
	3. EIC activities & resources.....3		___
	4. Status of IA.....4		___
	5. General IA/VE information.....5		
	6. Providing for special education.....6		
	7. IA & Technological literacy.....		

21. Would you now, upon completion of the [illegible] following needs (all relatively low ranked at the start of the seminar) as being urgent/important to the practice of industrial arts in New Jersey. If so, identify the items so selected in order of decreasing importance.

___ CETA/YEDPA program articulation with IA/VE
___ Update on IA/VE Philosophy and objectives
___ Knowledge of state and federal government
___ Public relations ideas and methods
___ Destereotyping, racially and sexually
___ IA and "Future study"
___ County vocational education [illegible]
___ Program oriented budgeting
___ State vocational education [illegible]
___ Basic legislation in IA, VE and special
___ Knowledge of state and national [illegible]

22. What would you have liked to learn from this seminar--but didn't?

23. Do you feel this course should be handled again in the same manner? If not, what changes do you recommend? What would improve the experience?

PLEASE PROVIDE ANY OTHER COMMENTS YOU MAY WISH TO MAKE:

Thank you for your careful responses and for your dedication to the profession. It has been a pleasure!

M. Dyer

Appendix I

Project Budget Summary

PROJECT TITLE Industrial Arts Leadership Development Seminar

LEGAL NAME OF APPLICANT DISTRICT OR INSTITUTION

Montclair State College

PROJECT DIRECTOR Michael J. Dyrenfurth

ADDRESS Industrial Education and Technology

Montclair State College, Upper Montclair, NJ 07043

TELEPHONE NUMBER (201) 893-4165/4161
(area code)

Beginning Date 10/1/77 (Mo. Day Yr.) Ending Date 6/30/78 (Mo. Day Yr.)

Duration eight months
days, weeks, months

Grant Funds Expended

	Expended	Approved
Salaries	$2,369.50	$2,304.00
Travel	578.02	792.00
Supplies	928.24	936.00
Other Salaries	1,367.87	1,282.00
Total	$5,243.63	$5,314.00

Appendix J

Sample Projects/Ideas and Proposal Form

1. Organizing a network of AIASA clubs in New Jersey
2. Developing an Industrial Arts supervisor's forum/conference
3. Developing a position paper on IA Teacher Certification
4. Implementing plan for New Jersey IA week
5. Systematizing IA NJ Newsletter and developing theme issues
6. Establishing computerized index of New Jersey's IA teachers
7. Developing implementation plan for safety guidelines
8. Developing evaluation/revision conference for safety guidelines
9. Developing/implementing an awards program in New Jersey
10. Developing an IA position statement for adoption by NJEA's Vocational Education Committee
11. Organizing an activity session for NJEA's November conference
12. Detailing scope and sequence section of State Guide
13. Developing a programmed guide for developing IEP's for SN students
14. Developing an inservice workshop for IA teachers facing SN students
15. Developing a position paper outlining IA's contributions to basic education
16. Conducting an inventory of IA facilities in New Jersey
17. Analyzing courses/programs, etc. offered in IA in New Jersey
18. Developing and implementing an AIAA membership campaign
19. Developing a laboratory management guide for IA teachers
20. Compiling IA evaluation statements from NASTEC, Middle States, NCATE, etc.
21. Developing public relations package for IA
22. Developing advocacy positions appropriate to the New Jersey Advisory Council on Vocational Education, the career education thrust, and the Special Needs Division of the Department of Education

23. Developing proposals in response to the vocational education RFPs in the areas of: energy, destereotyping, handicapped/disadvantaged, research, exemplary, curriculum, IA programs, and personnel development

24. Analyzing New Jersey's supply and demand for IA teachers

25. Developing rationale for IA's contribution/role with respect to technological literacy

26. Developing T and E guidelines for IA

27. Revising/updating your school's IA program

28. Developing rationale for requiring IA as part of the New Jersey school graduation requirements

29. Developing IA-CETA/YEDPA linkages

30. Compiling leadership resource package

industrial arts leadership development project

PROJECT PROPOSAL FORM

Name _____ Telephone _____

Project Title _____

_____

Objective _____

_____

_____

End Product _____

_____

Attach a one paragraph description of each of the following as appropriate:

a. Content outline
b. Key resources to be used
c. Method or procedure to be followed

Please note:

a. All projects are due on or before June 5, 1978
b. Projects are to be submitted to the Project Director
c. Projects are to be submitted in typewritten form

APPROVALS

_____ project director

_____ advisory council

Project Director

Michael J. Dyrenfurth, Ph.D.
Department of Industrial Education & Technology
Montclair State College
Upper Montclair, New Jersey 07043
Office (201)893-4165/4161

Please substitute the
following pages for pp. 111–122
in original copy

Appendix K

DETAILED SUMMARY OF PARTICIPANT EVALUATIONS OF THE INDUSTRIAL ARTS LEADERSHIP DEVELOPMENT PROJECT

Submitted by

Michael J. Dyrenfurth

October 1978

DETAILED SUMMARY

PARTICIPANT EVALUATION OF THE PROJECT

1. and 2. Indicate the extent to which each of the listed seminars was useful to you in your EXISTING and ANTICIPATED professional roles. (Code VU = very useful, U = useful, SU = slightly useful, NU = not useful).

	Extent to which seminar was useful to participants':							
	Existing Position				Anticipated Position			
	VU	U	SU	NU	VU	U	SU	NU
Seminar 1: Orientation and Registration	not evaluated				not evaluated			
Seminar 2: Vocational Education Legislation/Planning	11	14	2	1	17	5	2	-
Seminar 3: Proposal Writing/Funding	24	4	-	-	22	4	-	-
Seminar 4: IA Today and Tommorow: Status in NJ & USA	15	11	3	-	13	8	4	-
Seminar 5: IA and Technology: Basic Education	11	14	3	-	11	9	2	-
Seminar 6: T & E Implications for IA	10	13	4	1	14	11	-	-
Seminar 7: Special Education and IA	13	9	4	-	16	7	2	-
Seminar 8: Interpersonal Relations	8	10	10	1	11	9	6	-

1. and 2. Specify your existing and anticipated position:

	Professional role of respondents	
	Existing	Anticipated
Student	2 (5)	-
Teacher	12 (19)	5
Chairperson	7 (87)	3
Supervisor	3 (37)	9
Professor	- (-)	2
Not Indicated	4 (1)	7
Total Respondents	28 (35)	26

Parentheses indicate actual number of participants in each category

---

Note that evaluations allowed participants considerable flexibility in responding; hence, not all totals equal 35.

3. Identify at least the three most useful sessions of the entire seminar by indicating their rank in order of decreasing usefulness.

Seminar:	Indicated frequency of rank of usefulness: Most Useful 1	2	3	4	5	6	7	Least Useful 8	N Responding	Σ of weights of ranks	Average weighted score	Rank of usefulness
1: Orientation & Registration	Not Evaluated								Not Evaluated			
2: Vocational Education Legislation/ Planning	4	4	8	2	1	3	-	-	22	67	3.046	2
3: Proposal Writing/ Funding	16	6	1	-	1	-	-	-	24	36	1.500	1
4: IA Today & Tomorrow: Status in NJ & USA	2	4	2	2	8	1	1	-	20	77	3.850	6
5: IA & Technology: Basic Education	5	4	4	2	-	4	2	-	21	73	3.476	4.5
6: T & E Implications for IA	3	3	6	3	3	2	1	-	21	73	3.476	4.5
7: Special Education and IA	3	4	4	4	-	2	2	-	19	65	3.421	3
8: Interpersonal Relations	2	2	2	2	1	1	6	1	17	81	4.765	7

4. The seminar series provided many documents, articles, reprints. With respect to this strategy:

A. What is your reaction to this approach?

Responses	Frequency
Extremely useful/excellent	14
Becomes good reference, retained for reference	9
Good, pertinent and worthwhile	7
Liked it, tangible information, keeps one current	3
Didn't get to read it all, but retained all for reference	2
Too much paperwork, volume	2
It would be desirable to work with each handout	2
Cumbersome but somewhat effective	1

B. Identify the most useful documents distributed:

Responses	Frequency
Proposal writing guides, funding documents	26
Laws, T & E goals and objectives, NJAC-Title 6	8
Special Needs Evaluation handouts, PL 94-142	4
Participant roster, State Directory of IA Teachers	3
Sample association (AIAA, AVA, IAEA-NJ) publications	3
Certification requirements, technological literacy handouts, state organization chart, NJACVE Annual Report	1 each

C. Identify the least useful documents distributed:

Responses	Frequency
All documents were useful	4
NJEA fliers/releases	3
HEW organization chart (due to quality)	2
Cartoons, newspaper articles, T & E handout, AVA-IAD draft position paper, teacher directory, interpersonal relations handouts	1 each

5. To what extent did the advisory council contribute to the project's success/failure?

Responses	Frequency
Positive contributions to planning, organization and smooth conduct of seminars	8
Excellent contributions	7
Good assistance in discussions, providing input, conducting seminars, synthesizing sessions	6
Provided useful background information	4
Assisted individual participants	2
Cannot judge	2

6. What should be the composition of an advisory council for such a professional development project?

Responses

Essentially the overwhelming response of participants was that the composition of the advisory council was appropriate and in fact, exceptionally effective. Clearly, however, participant input suggested the addition of classroom teachers to the council and that these preferably be selected from each level of the public schools as well as to represent urban and suburban areas. Individual comments included suggestions for minority representation and for inclusion of such general administrators as school board members and principals. Representation from industry was also suggested. Overall, it should be noted that the participants strongly endorsed the across-the-board representation of the present advisory council. Interestingly enough, their responses to this evaluation item also included a number of references as to the purpose of such an advisory council. Such references included the encouragement and support of the professional development projects, active involvement in the conduct of each seminar, and the compilation of a summary of the overall project.

7. Identify by name and/or position some people who should be considered as consultants for future projects along similar directions:

Name	Position	Topic/Expertise
--	County Career Coordinator	Assistance available to I.A.
Russell W. Carpenter	County Superintendent of Schools, Hudson	Program for the Gifted
Eugene Compton	Department Chairman	--
Dr. Francesco Cordasco	Professor, Montclair State College	Bilingual vocational training
Dr. John Cummings	New Jersey State Department of Vocational Education	State leadership
Institute for Sex Desegregation	Douglass College	Sex equity
Dr. Donald Maley	Teacher Educator, University of Maryland	Innovative programs
Dr. Sam Micklus	Teacher Educator, Glassboro State College	Gifted and talented
Dr. Stan Ruggles	Teacher Educator, Trenton State College	Instructional models for curriculum development
Dr. Kendall Starkweather	Teacher Educator, University of Maryland, AIAA Legislative Committee	Legislation
Ralph Steeb	I. A. Director, Florida	State leadership
Dr. Witham	Superintendent of Schools Philipsburg	Direction of supervision

8. List some key topics that you feel should be included in future seminars. Rank the topics in order of decreasing importance:

	Most important	Second most important	Third and beyond
Proposal writing/Funding	4	3	1
Motivating the silent majority	1	-	1
The role of the IA supervisor, tasks, job descriptions	1	-	1
Implications of legislation	3	-	- 1
How to increase IA's voice	1	-	- 2
Developing techniques for good supervision	2	-	1
State safety laws and their impact/ OSHA	1	-	1
New curricula in IA (e.g., energy)/ overviews of programs/innovative programs	1	1	1
Teacher education system in NJ	1	-	-
Sex role stereotyping	1	-	1
Community relations/board relations	2	-	-
Implementation of State Guide for IA (new)	1	-	1
Monitoring T & E methods and approaches	1	2	3
Programs for gifted	1	-	-
Distribution of successful RFPs	-	2	-
Metrics	-	2	-
Special Education/Handicapped/Gifted & Talented	-	1	2
How to evaluate IA programs/teachers	-	2	-
Reading in IA	-	1	-
Budgeting procedures	-	2	-
How to organize/increase participation in local and state associations	-	1	1
Teacher liability	-	-	1
Student IA clubs/organizations	-	-	1

9. Participant rating summary of consultants (strongly agree = 4, agree = 3, disagree = 1, strongly disagree = 0; hence the higher the rated number, the more favorable the response). Insert the appropriate rating for each consultant on each criterion.

	James Good	John Cummings	Willis Ray	David Mohan	Harold Seltzer	Stephan Hritz	Richard Pol[illegible]	Catherine Norris	Criterion Average
A. Developed a comfortable intellectual climate	3.56	3.45	3.69	3.43	3.39	3.55	3.56	3.42	3.51
B. Was interested in one's problems and questions	3.73	3.64	3.52	3.17	3.5	3.45	3.67	3.54	3.53
C. Was well informed	3.83	3.59	3.85	3.77	3.45	3.75	3.78	3.52	3.69
D. Utilized appropriate instructional strategies	3.39	2.82	3.08	3.29	3.05	3.58	3.39	3.13	3.22
E. Presented interesting and useful information	3.55	3.61	3.46	3.48	3.5	3.74	3.61	3.26	3.53
Consultant Average	3.61	3.42	3.52	3.43	3.38	3.61	3.60	3.38	

Participant comments with respect to Item 9, Ratings of Consultants:

A summary of participant comments indicates that, commensurate with their numerical readings, the participants found all presenters interesting, knowledgeable, and that consequently they were pleased with presenter topics and expertise. Comment was made to the great amount of overall information transmitted.

10. Participant Rating Summary of Project Director (strongly agree = 4, agree = 3, disagree = 1, strongly disagree = 0; hence the higher the rated number, the more favorable the response). Insert the appropriate rating for the project director, Michael Dyrenfurth, on each of the criteria.

		Frequency SA	A	D	SD	Number Responding	Σ of Weight of Ranks	Average Weighted Score
A.	Organized the seminar well	25	5	-	-	30	115	3.83
B.	Was interested in one's problems/questions	23	5	1	-	29	108	3.72
C.	Was well informed	28	1	-	-	29	115	3.97
D.	Utilized appropriate instructional strategies	19	10	-	-	29	106	3.66
E.	Identified appropriate consultants	23	6	-	-	29	110	3.79
F.	Identified appropriate session topics	21	8	-	-	29	108	3.72
G.	Provided useful documents and instructional handouts	23	5	2	-	30	109	3.63
H.	Conducted each session effectively	22	7	1	-	30	110	3.67
Overall Rating								3.75

Participant comments with respect to the Project Director:

Individual participant comments were commensurate with their high numerical ratings and in essence indicated participant desire for further projects organized in a similar manner. Special favorable comment was made of both the project's organization and of the technique of scheduling the sessions in various locations around the state. Timing of the sessions was indicated as being commendable as was session layout and organization.

11. Compared to other industrial education graduate courses (taken at any college) this course was:

	Frequency
A Much more valuable	23
B More valuable	5
C Worth about the same	3
D Less valuable	
To. I	1

12. and 13. With respect to the timing/scheduling/rotation of sessions, comment on preferred alternatives, scheduling concerns, locations, etc. (note because of the way participants responded, the two items are best treated as one).

	Responses
A. Favorable comments	
1. It was desirable/advantageous to rotate meeting sites	22
2. The scheduled dates were good/acceptable	13
3. Meeting times were good/acceptable	9
4. Rotation of sites was fair	6
B. Unfavorable comments	
1. One got home too late (i.e., the sessions went too long or were scheduled too late in the day)	5
2. Too many meetings were scheduled in North Jersey	3
3. It was difficult to attend all sessions due to other obligations	3
4. Too many meetings were scheduled in South Jersey	2
5. Too much travel	1
C. Suggestions	
1. Centralize meeting location	4
2. Schedule Saturday sessions	4
3. Miscellaneous comments - watch school vacations - keep meetings to one specific day of week - send out meeting directions well in advance - schedule shorter sessions - extend seminar to full year - lengthen sessions commensurate to importance of topic - use more public schools as meeting sites	1 each

14. With respect to your overall assessment of the project, please indicate your rating on each criterion. (Strongly agree = 4, agree = 3, disagree = 1, strongly disagree = 0, hence the larger the number the more favorable the response.

	Response Frequency				N	Σ of Weights	Average Rank of Weights	Corrected * Average
	SA	A	D	SD				
A. More courses should be taught this way	22	5	2	-	29	103	3.55	3.55
B. The course was interesting	23	7			30	113	3.77	3.77
C. Not much was gained by taking this course	1	-	2	25	28	6	-(.21)	3.79
D. There was not enough participation for this type of a course	2	2	9	16	29	23	-(.79)	3.21
E. The needs of the participants were not considered	-	2	11	16	29	17	-(.59)	3.41
F. The course material was too difficult	-	1	6	20	27	10	-(.37)	3.63
G. The course was poorly organized	-	-	6	23	29	6	-(.21)	3.79
H. I would prefer a different method of instruction	-	1	10	17	28	13	-(.46)	3.54
I. The pace of the course was too slow	-	-	9	20	29	9	-(.31)	3.69
J. I would take another course that was taught this way	23	6	-	-	29	110	3.79	3.79
Overall average rating of seminar on all criteria								3.62

*Negative scale values were converted to positive scores by subtracting them from 4.00, resulting in an absolute score independent of criterion polarity. For purposes of the corrected average column, consider all criteria as positive statements.

15. What were the best things about this leadership project? (Think of instruction, assignments, meetings, classmates, consultants, handouts, etc.).

Comment	Frequency
A. The consultants were informative/knowledgeable, etc.	11
B. The topics were useful to one's roles.	11
C. The presentation/instructional methods	8
D. The opportunity to share problems and concerns within the group, group participation	8
E. The opportunity to make/review professional acquaintances	7
F. Useful handouts	6
G. Exposure to ideas	4
H. Visiting different sites	4
I. Opportunity for dealing with consultants	4
J. The opportunity to "tailor" assignments to one's needs	2
K. Demonstration of the link between state and national associations/leaders	2
Individual comments	1 each

- Advanced instruction
- The pace of instruction
- Leadership
- Organization/Planning
- Project Director

16. What were the weakest or poorest things about this project? (Think of the same range of items as above).

Comment	Frequency
A. Length of each session, lateness of dismissal (too late/long)	5
B. Amount of time for group discussion (too little)	4
C. Amount of travel required/unequal travel requirements	4
D. Interpersonal relations topic was familiar territory, not enough sex bias information	3
E. Too much information/handout overkill	2
F. Too little time spent on proposal writing	2
G. Too little time devoted to dealing with the handouts	2
Individual comments	1 each

- Lack of individual participation and involvement
- Not enough information for some assignments
- Course starting correspondence
- Lack of focus on large city problems
- Sessions involved little application of knowledge
- Method of instruction pertaining to assignments
- participant selection
- The nature of the assignment
- Too much information in the available time

17. Name the most important specific thing you have learned from this course.

Comment	Frequency
A. Funding processes/proposal writing/RFP procedures	17
B. The need to know what is going on in our profession	4
C. Meeting and interacting with colleagues and consultants	4
D. An overview of the field, its problems and key events	2
E. Rules and regulations pertaining to special needs education	2
F. That people care about our profession	2
Individual comments	1 each

- Legislation
- It pays to get involved
- Information transmitted
- Importance of technology
- Sources of information
- Industrial Arts clubs
- The need for public relations
- Leadership skills

18. The seminar sought to achieve the objectives listed below. Please indicate the degree to which each objective was achieved. (Code: very high = 4, high = 3, moderate = 2, low = 1).

	Response Frequency VH	H	M	L	N	Σ of Weights	Average Weight	Rank
A. ...op a cadre of leaders that will serve as an ex-p...n... nucleus for the industrial arts profession's thrust into the 1980's	14	9	6		29	.95	3.28	7
B. To identify potential newcomers to the leadership group of the industrial arts profession	14	14		1	29	99	3.41	6
C. To develop a mechanism for infusing women, minority group members, and persons with limited English capability into the cadre of leaders	8	9	8	1	26	76	2.92	11
D. To develop a mechanism whereby the leader/participants are given an opportunity to communicate regularly, both among themselves and with other key people	18	10	1		29	104	3.59	4
E. To increase the competencies of the participants in the areas of:								
i. their knowledge of the state's vocational education planning cycle	18	11			29	105	3.62	1.5
ii. their knowledge of the status of industrial arts and vocational education in NJ and USA	20	7	2		29	105	3.62	1.5
iii. their knowledge of federal laws and regulations relevant to IA and VE	17	8	4		29	100	3.45	5
iv. their knowledge of the evaluation and accountability mechanisms incorporated into VE as a result of T & E	9	12	7	1	29	87	3.00	10
v. their ability to relate with minorities and with persons of limited English capability	7	7	6	8	28	69	2.46	14
vi. their ability to discern and counter sex bias and stereotyping	8	4	13	3	28	73	2.61	13
vii. their ability to develop evaluation systems from needs assessment through outcome measures	7	8	13	1	29	79	2.72	12
viii. developing and disseminating public and professional information through a variety of media	13	10	6		29	94	3.24	8
ix. interpersonal skills and human relations	9	10	5	1	25	77	3.08	9
x. identifying and assessing resources and information necessary	19	10	1		30	108	3.60	3
Average degree of objective attainment							3.19	

19. What other objectives should the next professional development project address?

Comment	Frequency
A. Ways of strengthening leadership and supervision	3
B. Public relations techniques	2
C. Organization and encouragement of professional associations	2
Individual comments	1 each

- Developing a working knowledge of the new IA Guide
- Advanced teaching techniques
- Opening communications between IA and VE leaders
- Developing reading through IA and VE
- Reviewing IA graduate programs in NJ
- Incorporating technological advances in standard IA curricula
- Sharing and disseminating successful IA methods
- Identifying county offerings
- Critiquing of IA curriculum models
- Motivating others
- More interaction

20. The needs assessment conducted at the start of the seminar resulted in the summary of group rankings listed in the initial column. (Note that 1 = highest need, 7 = lowest). Please indicate your CURRENT rankings.

	Σ of Rank Weights				Initial	Final	
	Beginning	N	Ending	N	Rank	Rank	D *
A. Your perception as to PERSONAL NEEDS:							
i. how to write proposals	30	16	26	13	1	1	-
ii. knowledge of T & E procedure	51	16	37	13	3	3	-
iii. sources of funding/ grants	45	16	34	13	2	2	-
iv. general IA/VE information	59	16	49	13	4.5	4	+.5
v. providing for special education	61	16	53	13	6	5	+1.0
vi. status of IA	59	16	61	13	4.5	6	-1.5
B. Your perception as to STATE-WIDE NEEDS:							
i. IA and Career Education	58	16	36	13	3	2	+1
ii. Sources of funding grants	37	16	28	13	1	1	-
iii. EIC activities and resources	64	16	63	13	6	6	-
iv. Status of IA	47	16	56	13	2	5	-3
v. General IA/VE information	61	16	50	13	4.5	4	+.5
vi. Providing for special education	67	16	64	13	7	7	-
vii. IA and Technological literacy	61	16	46	13	4.5	3	+1.5

*+ indicates increase in rank of importance

21. Would you now, upon completion of the seminar, select any of the following needs (all relatively low ranked at the start of the seminar) as being urgent/important to the practice of industrial arts in New Jersey? If so, identify the items so selected in order of decreasing importance.

	Σ of Weights	N	Average Weight	New Rank of Importance
A. CETA/YEDPA program articulation with IA/VE	[illegible]	16	5.94	9
B. Update on IA/VE philosophy and objectives	100	21	4.76	6
C. Knowledge of state and federal government organization	97	17	5.71	8
D. Public relations ideas and methods	91	21	4.33	5
E. Destereotyping, racially and sexually	120	17	7.06	11
F. IA and "future study"	103	20	5.15	7
G. County vocational education funding mechanisms	61	15	4.07	2.5
H. Program oriented budgeting	61	15	4.07	2.5
I. State vocational education planning cycle	82	19	4.32	4
J. Basic legislation in IA, VE and special education	75	23	3.26	1
K. Knowledge of state and national associations	96	16	6.00	10

22. What would you have liked to learn from this seminar--but didn't?

Comments	Frequency
A. How to stimulate the silent majority towards increased professionalism	2
B. Activities countering sex bias/stereotyping	2
C. Implications of new safety regulations	2
D. Role/Contributions of state and national associations	2
E. More information on private, county, state and federal funding sources	2
F. Meeting the demands of a technological society through IA/curriculum development for future needs	2
Individual comments	1 each

- Synthesizing wrap-ups at end of each session
- Strengths/weaknesses of new IA curricula
- Curriculum development for future needs
- Individual roles in the profession
- Role of EIC's and colleges in stimulating/ supporting the profession
- IA-reading interaction
- More depth on legislation
- Some information/discussion of facility design/renovation

23. Do you feel this course should be handled again in the same manner? If not, what changes do you recommend? What would improve the experience?

Comments	Frequency
A. Should be handled the same	17
B. Should not be handled the same	0

Suggestions	Frequency
A. Build in more time for discussion/participation	3
B. Schedule more meetings (full year seminar)	2
C. Repeat seminar for more teachers/larger group	2
D. Build in additional information on information sources	2
E. Repeat seminar yearly	1
F. Repeat seminar for supervisors	1
G. Have Dr. Wenzel (State VE Director) participate	1
H. Schedule seminars during day	1
I. Build in a session on curriculum development	1
J. Build in a session on IAEA-NJ	1
K. Build in a session on getting students involved	1

Please provide any other comments you may wish to make:

Thank you	11
Excellent, good job	7
Enlightening, interesting and educational	4
A tribute to the Director and Advisory Council	3
ry worthwhile	2
I enjoyed it and would like to do it again	2
I enjoyed all guest speakers--they were superb	1
I acquired new knowledge in advanced leadershjp skills	1
This was the kind of course needed if we are to improve the image of Industrial Arts at state and national levels	1
This project has been the most relevant and professionally enriching graduate experience I have ever had	1
Again, one of the best courses I have taken	1
I wish we had more time to pursue each topic further	1
The personal concern for each student was greatly appreciated	1
Congratulations on your outstanding effort in support of Industrial Arts	1
A review of the notes and handouts was as informative as another seminar	1
Keep to the scheduled times, don't run over	1
Don't use a post-test	1
Print handouts on both sides	1
Be supportive of State Department of Education	1
Use formative quizzes to reinforce seminars	1
Package the presentation into a series of monographs	1

CREDITS

IALDP Logo and Design: Patricia Feeney

IALDP Final Report
Production and Design: K. F. Supko/Patricia Love

Student Assistant: Mr. Robert Clifford

Appendix K

DETAILED SUMMARY OF PARTICIPANT EVALUATIONS OF THE INDUSTRIAL ARTS LEADERSHIP DEVELOPMENT PROJECT

Submitted by

Michael J. Dyrenfurth

October, 1978

DETAILED SUMMARY

PARTICIPANT EVALUATION OF THE PROJECT

1. and 2. Indicate the extent to which each of the listed seminars was useful to you in your EXISTING and ANTICIPATED professional roles. (Code VU = very useful, U = useful, SU = slightly useful, NU = not useful).

	Extent to which seminar was useful to participants*:							
	Existing Position				Anticipated Position			
	VU	U	SU	NU	VU	U	SU	NU
Seminar 1: Orientation and Registration	not evaluated				not evaluated			
Seminar 2: Vocational Education Legislation/Planning	11	14	2	1	17	5	2	-
Seminar 3: Proposal Writing/Funding	24	4	-	-	22	4	-	-
Seminar 4: IA Today and Tomorrow: Status in NJ & USA	15	11	3	-	13	8	4	-
Seminar 5: IA and Technology: Basic Education	11	14	3	-	11	9	2	-
Seminar 6: T & E Implications for IA	10	13	4	1	14	11	-	-
Seminar 7: Special Education and IA	13	9	4	-	16	7	2	-
Seminar 8: Interpersonal Relations	8	10	10	1	11	9	6	-

1. and 2. Specify your existing and anticipated position:

Professional role of respondents		
	Existing	Anticipated
Student	2 (5)	-
Teacher	12 (19)	5
Chairperson	7 (87)	3
Supervisor	3 (37)	9
Professor	- (-)	2
Not Indicated	4 (1)	7
Total Respondents	28 (35)	26

Parentheses indicate actual number of participants in each category

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*Note that evaluations allowed participants considerable flexibility in responding; hence, not all totals equal 35.

3. Identify at least the three most useful sessions of the entire seminar by indicating their rank in order of decreasing usefulness.

Seminar:	Indicated frequency of rank of usefulness: Most Useful 1	2	3	4	5	6	7	Least Useful 8	N Responding	Σ of weights of ranks	Average weighted score	Rank of usefulness
1: Orientation & Registration	Not Evaluated								Not Evaluated			
2: Vocational Education Legislation/ Planning	4	4	8	2	1	3	-	-	22	67	3.046	2
3: Proposal Writing/ Funding	16	6	1	-	1	-	-	-	24	36	1.500	1
4: IA Today & Tomorrow: Status in NJ & USA	2	4	2	2	8	1	1	-	20	77	3.850	6
5: IA & Technology: Basic Education	5	4	4	2	-	4	2	-	21	73	3.476	4.5
6: T & E Implications for IA	3	3	6	3	3	2	1	-	21	73	3.476	4.5
7: Special Education and IA	3	4	4	4	-	2	2	-	19	65	3.421	3
8: Interpersonal Relations	2	2	2	2	1	1	6	1	17	81	4.765	7

4. The seminar series provided many documents, articles, reprints. With respect to this strategy:

A. What is your reaction to this approach?

Responses	Frequency
Extremely useful/excellent	14
Becomes good reference, retained for reference	9
Good, pertinent and worthwhile	7
Liked it, tangible information, keeps one current	3
Didn't get to read it all, but retained all for reference	2
Too much paperwork, volume	2
It would be desirable to work with each handout	2
Cumberscme but somewhat effective	1

B. Identify the most useful documents distributed:

Responses	Frequency
Proposal writing guides, funding documents	26
Laws, T & E goals and objectives, NJAC Title 6	8
Special Needs Evaluation handouts, PL 94-142	4
Participant roster, State Directory of IA Teachers	3
Sample association (AIAA, AVA, IAEA-NJ) publications	3
Certification requirements, technological literacy handouts, state organization chart, NJACVE Annual Report	1 each

C. Identify the least useful documents distributed:

Responses	Frequency
All documents were useful	4
NJCA fliers/releases	3
HEW organization chart (due to quality)	2
Cartoons, newspaper articles, T & E handout, AVA-IAE draft position paper, teacher directory, interpersonal relations handouts	1 each

5. To what extent did the advisory council contribute to the project's success/failure?

Responses	Frequency
Positive contributions to planning, organization and smooth conduct of seminars	8
Excellent contributions	7
Good assistance in discussions, providing input, conducting seminars, synthesizing sessions	6
Provided useful background information	4
Assisted individual participants	2
Cannot judge	2

6. What should be the composition of an advisory council for such a professional development project?

Responses

Essentially the overwhelming response of participants was that the composition of the advisory council was appropriate and in fact, exceptionally effective. Clearly, however, participant input suggested the addition of classroom teachers to the council and that these preferably be selected from each level of the public schools as well as to represent urban and suburban areas. Individual comments included suggestions for minority representation and for inclusion of such general administrators as school board members and principals. Representation from industry was also suggested. Overall, it should be noted that the participants strongly endorsed the across-the-board representation of the present advisory council. Interestingly enough, their responses to this evaluation item also included a number of references as to the purpose of such an advisory council. Such references included the encouragement and support of the professional development projects, active involvement in the conduct of each seminar, and the compilation of a summary of the overall project.

7. Identify by name and/or position some people who should be considered as consultants for future projects along similar directions:

Name	Position	Topic/Expertise
--	County Career Coordinator	Assistance available to I.A.
Russell W. Carpenter	County Superintendent of Schools, Hudson	Program for the Gifted
Eugene Compton	Department Chairman	--
Dr. Francesco Cordasco	Professor, Montclair State College	Bilingual vocational training
Dr. John Cummings	New Jersey State Department of Vocational Education	State leadership
Institute for Sex Desegregation	Douglass College	Sex equity
Dr. Donald Maley	Teacher Educator, University of Maryland	Innovative programs
Dr. Sam Micklus	Teacher Educator, Glassboro State College	Gifted and talented
Dr. Stan Ruggles	Teacher Educator, Trenton State College	Instructional models for curriculum development
Dr. Kendall Starkweather	Teacher Educator, University of Maryland, AIAA Legislative Committee	Legislation
Ralph Steeb	T. A. Director, Florida	State leadership
Dr. Witham	Superintendent of Schools Phillipsburg	Direction of supervision

8. List some key topics that you feel should be included in future seminars. Rank the topics in order of decreasing importance:

	Most important	Second most important	Third and beyond
Proposal writing/Funding	4	3	1
Motivating the silent majority	1	-	1
The role of the IA supervisor, tasks, job descriptions	1	-	1
Implications of legislation	3	-	- 1
How to increase IA's voice	1	-	- 2
Developing techniques for good supervision	2	-	1
State safety laws and their impact/ OSHA	1	-	1
New curricula in IA (e.g., energy)/ overviews of programs/innovative programs	1	1	1
Teacher education system in NJ	1	-	-
Sex role stereotyping	1	-	1
Community relations/board relations	2	-	-
Implementation of State Guide for IA (new)	1	-	1
Monitoring T & E methods and approaches	1	2	3
Programs for gifted	1	-	-
Distribution of successful RFPs	-	2	-
Metrics	-	2	-
Special Education/Handicapped/Gifted & Talented	-	1	2
How to evaluate IA programs/teachers	-	2	-
Reading in IA	-	1	-
Budgeting procedures	-	2	-
How to organize/increase participation in local and state associations	-	1	1
Teacher liability	-	-	1
Student IA clubs/organizations	-	-	1

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9. Participant rating summary of consultants (strongly agree = 4, agree = 3, disagree = 1, strongly disagree = 0; hence the higher the rated number, the more favorable the response). Insert the appropriate rating for each consultant on each criterion.

	James Good	John Cummings	Willis Ray	David Mohan	Harold Seltzer	Stephan Hritz	Richard Politt	Catherine Norris	Criterion Average
A. Developed a comfortable intellectual climate	3.56	3.45	3.69	3.43	3.39	3.55	3.56	3.42	3.51
B. Was interested in one's problems and questions	3.73	3.64	3.52	3.17	3.5	3.45	3.67	3.54	3.53
C. Was well informed	3.83	3.59	3.85	3.77	3.45	3.75	3.78	3.52	3.69
D. Utilized appropriate instructional strategies	3.39	2.82	3.08	3.29	3.05	3.58	3.39	3.13	3.22
E. Presented interesting and useful information	3.55	3.41	3.45	3.48	3.5	3.74	3.61	3.26	3.53
Consultant Average	3.61	3.42	3.52	3.43	3.38	3.61	3.60	3.38	

Participant comments with respect to item 9, Ratings of Consultants:

A summary of participant comments indicates that, commensurate with their numerical readings, the participants found all presenters interesting, knowledgeable, and that consequently they were pleased with presenter topics and expertise. Comment was made to the great amount of overall information transmitted.

10. Participant Rating Summary of Project Director (strongly agree = 4, agree = 3, disagree = 1, strongly disagree = 0; hence the higher the rated number, the more favorable the response). Insert the appropriate rating for the project director, Michael Dyrenfurth, on each of the criteria.

	Frequency SA A D SD	Number Responding	Σ of Weight of Ranks	Average Weighted Score
A. Organized the seminar well	25 5 - -	30	115	3.83
B. Was interested in one's problems/questions	23 5 1 -	29	108	3.72
C. Was well informed	28 1 - -	29	115	3.97
D. Utilized appropriate instructional strategies	19 10 - -	29	106	3.66
E. Identified appropriate consultants	23 6 - -	29	110	3.79
F. Identified appropriate session topics	21 8 - -	29	108	3.72
G. Provided useful documents and instructional handouts	23 5 2 -	30	109	3.63
H. Conducted each session effectively	22 7 1 -	30	113	3.67
Overall Rating				3.75

Participant comments with respect to the Project Director:

Individual participant comments were commensurate with their high numerical ratings and in essence indicated participant desire for further projects organized in a similar manner. Special favorable comment was made of both the project's organization and of the technique of scheduling the sessions in various locations around the state. Timing of the sessions was indicated as being commendable as was session layout and organization.

11. Compared to other industrial education graduate courses (taken at any college) this course was:

	Frequency
A. Much more valuable	23
B. More valuable	5
C. Worth about the same	3
D. Less valuable	-
Total	31

12. and 13. With respect to the timing/scheduling/rotation of sessions, comment on preferred alternatives, scheduling concerns, locations, etc. (Note because of the way participants responded, the two items are best treated as one).

	Responses
A. Favorable comments	
1. It was desirable/advantageous to rotate meeting sites	22
2. The scheduled dates were good/acceptable	13
3. Meeting times were good/acceptable	9
4. Rotation of sites was fair	6
B. Unfavorable comments	
1. One got home too late (i.e., the sessions went too long or were scheduled too late in the day)	5
2. Too many meetings were scheduled in North Jersey	3
3. It was difficult to attend all sessions due to other obligations	3
4. Too many meetings were scheduled in South Jersey	2
5. Too much travel	1
C. Suggestions	
1. Centralize meeting location	4
2. Schedule Saturday sessions	4
3. Miscellaneous comments - match school vacations - keep meetings to one specific day of week - send out meeting directions well in advance - schedule shorter sessions - extend seminar to full year - lengthen sessions commensurate to importance of topic - use more public schools as meeting sites	1 each

14. With respect to your overall assessment of the project, please indicate your rating on each criterion. (Strongly agree = 4, agree = 3, disagree = 1, strongly disagree = 0, hence the larger the number the more favorable the response.

	Response Frequency SA	A	D	SD	N	Σ of Weights	Average Rank of Weights	Corrected* Average
A. More courses should be taught this way	22	5	2	-	29	103	3.55	3.55
B. The course was interesting	23	7			30	113	3.77	3.77
C. Not much was gained by taking this course	1	-	2	25	28	6	-(.21)	3.79
D. There was not enough participation for this type of a course	2	2	9	16	29	23	-(.79)	3.21
E. The needs of the participants were not considered	-	2	11	16	29	17	-(.59)	3.41
F. The course material was too difficult	-	1	6	20	27	10	-(.37)	3.63
G. The course was poorly organized	-	-	6	23	29	6	-(.21)	3.79
H. I would prefer a different method of instruction	-	1	10	17	28	13	-(.46)	3.54
I. The pace of the course was too slow	-	-	9	20	29	9	-(.31)	3.69
J. I would take another course that was taught this way	23	6	-	-	29	110	3.79	3.79
Overall average rating of seminar on all criteria								3.62

*Negative scale values were converted to positive scores by subtracting them from 4.00, resulting in an absolute score independent of criterion polarity. For purposes of the corrected average column, consider all criteria as positive statements.

15. What were the best things about this leadership project? (Think of instruction, assignments, meetings, classmates, consultants, handouts, etc.).

Comment	Frequency
A. The consultants were informative/knowledgeable, etc.	11
B. The topics were useful to one's roles	11
C. The presentation/instructional methods	8
D. The opportunity to share problems and concerns within the group, group participation	8
E. The opportunity to make/review professional acquaintances	7
F. Useful handouts	6
G. Exposure to ideas	4
H. Visiting different sites	4
I. Opportunity for dealing with consultants	4
J. The opportunity to "tailor" assignments to one's needs	2
K. Demonstration of the link between state and national associations/leaders	2
Individual comments	1 each

- Advanced instruction
- The pace of instruction
- Leadership
- Organization/Planning
- Project Director

16. What were the weakest or poorest things about this project? (Think of the same range of items as above).

Comment	Frequency
A. Length of each session, lateness of dismissal (too late/long)	5
B. Amount of time for group discussion (too little)	4
C. Amount of travel required/unequal travel requirements	4
D. Interpersonal relations topic was familiar territory, not enough sex bias information	3
E. Too much information/handout overkill	2
F. Too little time spent on proposal writing	2
G. Too little time devoted to dealing with the handouts	2
Individual comments	1 each

- Lack of individual participation and involvement
- Not enough information for some assignments
- Course starting correspondence
- Lack of focus on large city problems
- Sessions involved little application of knowledge
- Method of instruction pertaining to assignments
- participant selection
- The nature of the assignment
- Too much information in the available time

17. Name the most important specific thing you have learned from this course.

Comment	Frequency
A. Funding processes/proposal writing/RFP procedures	17
B. The need to know what is going on in our profession	4
C. Meeting and interacting with colleagues and consultants	4
D. An overview of the field, its problems and key events	2
E. Rules and regulations pertaining to special needs education	2
F. That people care about our profession	2
Individual comments	1 each

- Legislation
- It pays to get involved
- Information transmitted
- Importance of technology
- Sources of information
- Industrial Arts clubs
- The need for public relations
- Leadership skills

The seminar sought to achieve the objectives listed below. Please indicate the degree to which each objective was achieved. (Code: very high = 4, high = 3, moderate = 2, low = 1).

	Response Frequency VH	H	M	L	N	Σ of Weights	Average Weight	Rank
A. To develop a cadre of leaders that will serve as an expanded nucleus for the industrial arts profession's thrust into the 1990's	14	9	6		29	95	3.28	7
B. To identify potential newcomers to the leadership group of the industrial arts profession	14	14		1	29	99	3.41	6
C. To develop a mechanism for infusing women, minority group members, and persons with limited English capability into the cadre of leaders	[illegible]	8	1	26	76	2.92	11	
D. To develop a mechanism whereby the leader/participants are given an opportunity to communicate regularly, both among themselves and with other key people	18	10	1		29	104	3.59	4
E. To increase the competencies of the participants in the areas of:								
i. their knowledge of the state's vocational education planning cycle,	18	11			29	105	3.62	1.5
ii. their knowledge of [illegible] and vocational education [illegible]	20	7	2		29	105	3.62	1.5
iii. their knowledge of federal laws and regulations relevant to IA and VE	17	8	4		29	100	3.45	5
iv. their knowledge of the evaluation and accountability mechanisms incorporated into VE as a result of T & E	9	12	7	1	29	87	3.00	10
v. their ability to relate with minorities and with persons of limited English capability	7	7	6	8	28	69	2.46	14
vi. their ability to discern and counter sex bias and stereotyping	8	4	13	5	25	73	2.81	13
vii. their ability to develop evaluation systems from needs assessment through outcome measures	7	8	13	1	29	79	2.72	12
viii. developing and disseminating public and professional information through a variety of media	13	10	6		29	94	3.24	8
ix. interpersonal skills and human relations	9	10	5	1	25	77	3.08	9
x. identifying and assessing resources and information necessary	19	10	1		30	108	3.60	2
Average degree of objective attainment							3.19	

19. What other objectives should the next professional development project address?

Current	Frequency
A. Ways of strengthening leadership and supervision	3
B. Public relations techniques	2
C. Organization and encouragement of professional associations	2
Individual currents	1 each

- Developing a working knowledge of the new IA Guide
- Advanced teaching techniques
- Opening communications between IA and VE leaders
- Developing ability through IA and VE
- Reviewing graduate programs in NJ
- Incorporating technological advances in standard IA curricula
- Sharing and disseminating successful IA methods
- Identifying county offerings
- Critiquing of IA curriculum models
- Motivating others
- More interaction

20. The needs assessment conducted at the start of the seminar resulted in the summary of group rankings listed in the initial column. (Note that 1 = highest need, 7 = lowest). Please indicate your CURRENT rankings.

	Σ of Rank Weights				Initial Rank	Final Rank	ΔD *
	Beginning	N	Ending	N			
A. Your perception as to PERSONAL NEEDS:							
i. how to write proposals	30	16	26	13	1	1	-
ii. knowledge of T & E procedure	51	16	37	13	3	3	-
iii. sources of funding/ grants	45	16	34	13	2	2	-
iv. general IA/VE information	59	16	49	13	4.5	4	+.5
v. providing for special education	61	16	53	13	6	5	+1.0
vi. status of IA	59	16	61	13	4.5	6	-1.5
B. Your perception as to STATE-WIDE NEEDS:							
i. IA and Career Education	58	16	38	13	3	2	+1
ii. Sources of funding grants	37	16	28	13	1	1	-
iii. EIC activities and resources	64	16	63	13	6	6	-
iv. Status of IA	47	16	56	13	2	5	-3
v. General IA/VE information	61	16	50	13	4.5	4	+.5
vi. Providing for special education	67	16	64	13	7	7	-
vii. IA and Technological literacy	61	16	46	13	4.5	3	+1.5

*+ indicates increase in rank of importance

21. Would you now, upon completion of the seminar, select any of the following needs (all relatively low ranked at the start of the seminar) as being urgent/important to the practice of industrial arts in New Jersey? If so, identify the items so selected in order of decreasing importance.

	Σ of Weights	N	Average Weight	New Rank of Importance
A. CETA/VEDPA program articulation with IA/VE	95	16	5.94	9
B. Update on IA/VE philosophy and objectives	100	21	4.76	6
C. Knowledge of state and federal government organization	97	17	5.71	8
D. Public relations ideas and methods	91	21	4.33	5
E. Deстereotyping, racially and sexually	120	17	7.06	11
F. IA and "future study"	103	20	5.15	7
G. County vocational education funding mechanisms	61	15	4.07	2.5
H. Program oriented budgeting	61	15	4.07	2.5
I. State vocational education planning cycle	82	19	4.32	4
J. Basic legislation in IA, VE and special education	75	23	3.26	1
K. Knowledge of state and national associations	96	16	6.00	10

22. What would you have liked to learn from this seminar--but didn't?

Comments	Frequency
A. How to stimulate the silent majority towards increased professionalism	2
B. Activities countering sex bias/stereotyping	2
C. Implications of new safety regulations	2
D. Role/Contributions of state and national associations	2
E. More information on private, county, state and federal funding sources	2
F. Meeting the demands of a technological society through IA/curriculum development for future needs	2
Individual comments	1 each

- Synthesizing wrap-ups at end of each session
- Strengths/weaknesses of new IA curricula
- Curriculum development for future needs
- Individual roles in the profession
- Role of EIC's and colleges in stimulating/supporting the profession
- IA-reading interaction
- More depth on legislation
- Some information/discussion of facility design/renovation

23. Do you feel this course should be handled again in the same manner? If not, what changes do you recommend? What would improve the experience?

Comments	Frequency
A. Should be handled the same	17
B. Should not be handled the same	0

Suggestions	Frequency
A. Build in more time for discussion/participation	3
B. Schedule more meetings (full year seminar)	2
C. Repeat seminar for more teachers/larger group	2
D. Build in additional information on information sources	2
E. Repeat seminar yearly	1
F. Repeat seminar for supervisors	1
G. Have Dr. Wenzel (State VE Director) participate	1
H. Schedule seminars during day	1
I. Build in a session on curriculum development	1
J. Build in a session on IAEA-NJ	1
K. Build in a session on getting students involved	1

Please provide any other comments you may wish to make:

Thank you	11
Excellent, good job	7
Enlightening, interesting and educational	4
A tribute to the Director and Advisory Council	3
Very worthwhile	2
I enjoyed it and would like to do it again	2
I enjoyed all guest speakers--they were superb	1
I acquired new knowledge in advanced leadership skills	1
This was the kind of course needed if we are to improve the image of Industrial Arts at state and national levels	1
This project has been the most relevant and professionally enriching graduate experience I have ever had	1
Again, one of the best courses I have taken	1
I wish we had more time to pursue each topic further	1
The personal concern for each student was greatly appreciated	1
Congratulations on your outstanding effort in support of Industrial Arts	1
A review of the notes and handouts was as informative as another seminar	1
Keep to the scheduled times, don't run over	1
Don't use a post-test	1
Print handouts on both sides	1
Be supportive of State Department of Education	1
Use formative quizzes to reinforce seminars	1
Package the presentation into a series of monographs	1

CREDITS

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