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ABSTRACT

The three broad goals of career education--learning to live, learning to learn, and learning to make a living--should be integrated into a lifelong educational process for the prime purpose of assisting every individual to become a fully capacitated, self-motivated, self-fulfilled, contributing member of society. The "guidelines" consider the role of industrial education, basic skills, goals, and many other topics such as scope and sequence, occupational/socioeconomic information, guidance and counseling, life-related experiences, student organizations, advisory committees, and professional development. Program assessment, curriculum development, and program implementation are also reviewed in the "guidelines," which should be helpful in improving industrial arts programs. Many program changes are implied, and no doubt some will not materialize. However, the role of industrial arts is vital in the career education thrust. Industrial arts educators have an obligation to fulfill this commitment and should be willing to be held accountable accordingly. (Author/NH)

Implications for Industrial Arts in Career Education

"A Review of the Information in the Ad Hoc Committee's GUIDELINES BULLETIN"

Presented at the A.V.A. Convention
in Atlanta, Georgia

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by

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Implications for Industrial Arts in Career Education

"A Review of the Information Presented in the Ad Hoc Committee's Guidelines Bulletin"

This presentation is based on the assumption you are familiar with the procedures used in the development of the U.S.O.E. sponsored project designed to develop guidelines for industrial arts in career education and you have received, or will shortly receive, a final copy of the guidelines booklet.

The purpose of my remarks will be to assist you to understand the scope and intent of the guidelines better and present a few ideas which may be helpful as you begin to use them to evaluate and improve industrial arts programs at the state and local level.

I would appreciate it if you keep two important facts in mind as you analyze the guidelines:

1. The guidelines are designed to assist school personnel, advisory committees and lay groups in planning, developing and implementing industrial arts programs as an important element of career education. It is intended as a guide, not a prescription for program development.
2. The guidelines were developed with a great deal of input from administrators, industrial arts leaders, and educators at all levels. In addition to the 16-member task force and two administrative assistants, numerous consultants were used and input was received from all parts of the country as a result of two nationwide mailings and hearings conducted at the A.V.A. and A.I.A.A. conventions.

The document went through three major drafts and numerous minor ones. The administrative assistants gave high priority to ensure the committee access to all field recommendations in a form that could be carefully

analyzed for inclusion by the committee.

The excellent organizational prodedure used in the preparations of the document coupled with the outstanding field input resulted in a document which I believe truly reflects what industrial arts educators are willing to be held accountable for in the development, implementation, and evaluation of industrial arts within career education.

The Committee's Interpretation of Career Education

Rather than play a word game and develop our own definition of career education, the committee elected to stay with the original definition written by Dr. Sidney P. Marland which appeared in our report on "Criteria and Guidelines for Funding Industrial Arts".

> "Career education is the development of a lifelong learning process that provides for a broad approach to preparation for citizenship; provides for information and skill development; and also helps individuals develop attitudes about the personal, psychological, social and economic significance of work in our society. It develops and fosters vocational and recreational interests of individuals to help prepare for well-rounded living in a world in which leisure time is increasing and greater opportunity for a self-expression through creative production is available."

In essence, this definition implies three broad goals for career education: Learning to live, learning to learn, and learning to make a living. By integrating these goals into a lifelong educational process, it should be possible to unify all aspects of education for the prime purpose of assisting every individual to become a fully capacitated, self-motivated, self-fulfilled, contributing member of society. Career education is equally concerned with all aspects of an individual's lifestyle. Opportunities must be available for each citizen to participate in activities and experiences which contribute to his role in:

a. the economic life of society by being a producer of goods or renderer of services;

b. fulfilling his obligation as a member of a family group;

c. participating in community activities;

d. participating in avocational activities;

e. accepting responsibility for the aesthetic, religious, and moral life of the community.

While industrial arts has a major role to play in career education, we must be careful to put it in perspective and view our involvement as only a part of the total educational process.

In reviewing the major sections and characteristics of the guidelines, remember each topic is interdisciplinary in nature. Industrial arts educators responsible for program design and implementation must view themselves as contributing team members and not attempt to monopolize any aspect.

Industrial Education

Part of our interdisciplinary endeavors must include a close working relationship with trade and industrial education which, when combined with many of the goals and objectives of industrial arts, forms a continum often referred to as industrial education. This continum from pre-Kindergarten to continuing education provides an opportunity not only for a joint partnership between industrial arts and trade and industry in fulfilling the intent of Congress in the Amended Vocational Act of 1963, but provides a solid base for our involvement in the total educational process. The "Forward" section of the Guidelines does an excellent job of outlining this relationship.

Basic Skills

Each broad goal and characteristic of career education was carefully analyzed by the committee to ensure that our role and contributions within each was clearly identified. For example, the need to develop student competences in basic skills such as reading, writing, speaking, listening, and computing which are essential for all regardless of career goal or lifestyle in a

meaningful and humanistic atmosphere is a goal of industrial arts and an explicit characteristic of career education.

Industrial Arts Goal	Career Education Characteristic
Provide an opportunity to make other school subjects more meaningful and relevant.	Increase the relevance of all educational subject matter and promote a restructuring and focusing of it around a career development theme.

In implementing this goal, the industrial arts educator might consider teaming with other educators and support personnel to:

1. Develop the basic skills in specific performance or behavioral objectives which are measurable so we all know what we are talking about.
2. Take advantage of computer technology and implement an assessment, recording, and reporting process which will determine exactly how each individual is progressing in relation to the specific skills.

With these two phases completed, it would appear that industrial arts programs and educators would be in a position to make their greatest contribution by assisting in the restructuring and focusing of curriculum and subject matter around activities and themes which are most appropriate to the cultural, social, and economic functions of society. This will enable the content to be presented in meaningful, coherent, motivational, and humanistic terms which should reduce student apathy, dropout rates, absenteeism, vandalism, and low achievement scores.

The committee was somewhat hesitant about using the term 'cluster' because of its susceptibility to misinterpreation. However, we did support the intent of the fifteen United States Office of Education career clusters and recognize they reflect a means of classifying common economic and societal pursuits which make up our American way of life. They must not be overlooked and industrial arts must find its identity within and address themselves accordingly. Specifically, this implies that the traditional wood, metal, and drafting facilities and programs will have to reflect broader goals related to such areas as transportation, construction

communications, manufacturing, and personal services throughout its entire spectrum.

SCOPE & SEQUENCE

The concept of career education evolves around a systematic and sequential management system which is consistent with career development, human development, psychology, and the decision-making process. This system spans kindergarten through life and is broken into specific phases to help simplify management tasks. These phases include self and career awareness, orientation, exploration, beginning specialization, specialization, higher education, adult and continuing education.

With the exception of specialization, the committee felt that industrial arts had major contributions to make and should be integrated into the total educational structure at each level. There is no barrier separating general from academic education, or industrial arts from vocational education. Interdisciplinary and team planning within each phase and between phases is essential. Specifically, this implies the need for a clear-cut state, regional, and local organizational and management plan which extends from awareness to the adult and continuing education level. It must be aligned with the goals of career education and purposes of industrial arts, be realistic, attainable, developed in detail, and include a built-in process for ongoing assessment and evaluation.

OCCUPATIONAL/SOCIO ECONOMIC INFORMATION

Another good example of the relationship between an industrial arts goal and a career education characteristic relates to our role of assisting students to better understand career opportunities related to the industrial technologies and develop traits that will help them obtain and maintain employment. The comparison reads as follows:

INDUSTRIAL ARTS GOAL	CAREER ED CHARACTERISTIC
Bring about an understanding of career opportunities and requirements in industrial pursuits and develop traits that help obtain and maintain employment.	Provide students with the guidance, counseling, and instruction needed to develop self-awareness, self-direction, and expanded career awareness and aspirations.

Specifically, this means that information and experiences related to broad cluster fields within the realm of the industrial technologies should be integrated into industrial arts content and activities.

Within each phase or level of instruction, opportunities should be provided for students to make effective use of external and internal resources and become more aware of potential career pursuits in terms of social implications, nature of the work, working conditions, entry level qualifications, required preparation, advancement opportunities, remuneration, and ways to enter industrial-technical fields of their choice.

At the awareness level, activities within each cluster should focus on such things as what the occupations look, sound, and smell like, who works in these occupations, the lifestyle of the people, and where the jobs are. At the orientation level, there is more refinement of likes and dislikes. Consequently, emphasis should be placed on specific tasks, working conditions, physical and intellectual requirements. Field observations and explorer programs should be common at this level in addition to simulation, role playing and research. At the exploration and pre-specialization level, the process is more refined because the student is rapidly reaching the stage where he will make a decision to pursue a specific career in greater depth or continue with a breadth approach. At this stage, such factors as job obsolescence, job hazards, advancement opportunities, personal requirements, remunerations, fringe benefits, entry requirements, and application procedures become more critical. Students should be actively involved in field experiences, community service projects, and exposed to pertinent career information utilizing resource people which will assist in their decision-making process.

GUIDANCE AND COUNSELING

The role of industrial arts in the guidance and counseling aspect in career education is obvious if we are to accomplish the intent of the goal and characteristic

related to occupational and socio-economic career information. However, the guidelines infer that guidance must be an integral part of the total program, and the responsibility of all staff. The activities within each phase of industrial arts must be concerned with developing student attitudes, self-awareness, and self-direction and expanding student awareness, aspirations, and decision-making abilities related to personal growth and career development.

Formal and cooperative relationships between counselors and industrial arts educators are essential in accomplishing this task. Counselors should be built into all program development and implementation plans and viewed as regular staff members. Mutual goals must be understood, and cooperative efforts should be undertaken in utilizing community resources, obtaining and integrating meaningful data into the curriculum, inservice training, conducting student conferences, preparing student schedules, and discussing problems. In short, such cooperative efforts are essential in individual assessment and advisement during the various and complex stages of career decision-making.

STUDENT INVOLVEMENT

The greatest strength of industrial arts education has always been its student-centered multi-activity approach to individualized learning.

Emphasis is placed throughout the guidelines on student involvement in a variety of problem-solving activities such as designing, planning, experimenting, constructing, evaluating, and using tools, machines, materials and processes in each phase to assist in acquiring industrial-technical understanding and competencies.

The guidelines reinforce the need to use a wide variety of teaching methods and media in the selection and implementation of each activity in addition to providing flexibility to accommodate individual learning styles and educational opportunities beyond school.

One of the goals of career education is to provide flexible options for all persons to enter or re-enter the world of work or the educational system. It also encourages flexibility within each phase to allow for a multi-sensory environment consistent with individual needs, desires, capabilities, and interests. Applying

this goal specifically to industrial arts, and the intent of the guidelines we should see:

a. Course options consistent with economic and societal pursuits which vary in length from one to forty weeks with virtually unlimited entry - re-entry capabilities;

b. provisions for external activities which provide field observations and hands-on experiences in industrial-technical pursuits commonly associated with the community and region;

c. a definite process for the utilization of community human and physical resources as an integral part of each phase;

d. multiple sequences which provide for breadth and in-depth experiences at the exploratory, beginning specialization and specialization phase consistent with individual needs, desires, capabilities and interests;

e. complete flexibility for all citizens in the community to spin-in-and-out of adult, vocational, higher education, and cooperative education courses, as well as, all course offerings within industrial art.

f. ample activity options to accommodate individual learning

g. school and/or related activities 12 months a year.

LIFE RELATED EXPERIENCES

An effective career education program necessitates a school-community partnership which will enable all citizens to utilize a wide variety of community human and physical resources as part of their total educational experience.

Regardless of lifestyle or career pursuit, all students should have the opportunity to participate in activities outside the formal school setting.

Examples of implementing this goal include:

a. supervised work experiences
b. field observations of varying lengths
c. student participationin or auditing of industrial training programs
d. junior achievement
e. explorer programs

f. community service projects
g. student-employer partnership days
h. regularly scheduled short and long term group field trips
i. field seminars and classes

In addition to the community experiences, an effort should be made to incorporate key community people into the daily classroom activities for the purposes of enrichment or reinforcement of key concepts.

STUDENT ORGANIZATIONS

The success and contributions of youth organizations such as VICA, FRA, FHA, FBLA, and DECCA could not be overlooked in our planning. It provides the most valuable means of developing student leadership and group interaction skills in a social setting.

The guidelines recommend the formation of an industrial arts club and integration of related activities into the regular school program.

In planning curriculum, it would seem advisable to integrate many of the activities related to group production, community service projects, field observations, and a community resource bank into club functions.

ADVISORY COMMITTEES

It would be impossible to develop, implement, and evaluate a program of this magnitude without the assistance of an advisory committee. The committee should be staffed with people who represent each of the major components of the program. Specific tasks of the committee should be to assist in

a. determining course offerings and sequences;

b. identifying and developing content, activities, resources, and facilities;

c. identifying and utilizing community resources;

d. program evaluation.

While this committee would focus primarily on the development and implementati of an industrial arts program or a career cluster which depends a great deal on industrial arts personnel, it would be expected that representatives of this committee would serve on general advisory committees responsible for all aspects of education

including vocational education, adult education, regional and state-wide planning. While the committee should not be viewed as a policy or decision-making group, their advice, input, and recommendations should be given close attention.

PROFESSIONAL DEVELOPMENT

Professional competencies required to instruct and manage the type of laboratory activities and external learning experiences inherent in a comprehensive career education program make it essential that staff development program be built into the process.

Implied in the guidelines are activities which include:

1. long and short-term courses and workshops;
2. special interest group sessions;
3. field observations;
4. cooperative work experience opportunities;
5. staff exchanges.

Activities of this nature should be sponsored on a regular basis by colleges and universities, state departments and local school districts. Staff should be given the opportunity and encouragement to attend.

PROGRAM ASSESSMENT

The guidelines contain a rather extensive section on key topics which should be analyzed as part of an internal assessment to determine the effectiveness of existing programs in relationship to the goals of career education. They also provide a basis for an external evaluation of the total program.

Specifically, the assessment process is divided into the major divisions of:

1. organization
2. program
3. resources
4. facilities/equipment
5. staff improvement
6. follow-up

The assessment and evaluation process should be conducted on a regular basis in an objective way, utilizing the services of staff, administration, students, community members, and advisory committee members. Problem areas or weaknesses should be dealt with in an effective and efficient manner.

FORMAT FOR CURRICULUM DEVELOPMENT & PROGRAM IMPLEMENTATION

The last section of the guidelines is devoted to a criteria and format which should be helpful in developing or improving an industrial arts programs in accord with the intent and purpose of career education.

It follows a logical sequence for program identification, development, implementation and evaluation and should serve as a basis for specific refinement or criteria at the state or local level.

CONCLUSION

These guidelines were developed with a great deal of assistance and input from the profession. Many program changes are implied and no doubt some will not materialize. However, the role of industrial arts is vital in the career education thrust. Idustrial arts educators have an obligation to fulfill this commitment and should be willing to be held accountable accordingly.