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ABSTRACT

This report presents selected quotations and major points representing the views of educators, policymakers, and specialists in the areas of economic and social development on the subject of the purposes of vocational education in the secondary schools. The material was collected during a year-long review of current studies of secondary schools, 20th-century perspectives on vocational education and its specific fields, the purposes of education in general, future social and economic forces, and key concepts often used to define the purpose of vocational education. The volume is divided into eight parts. The importance of readdressing the purpose of vocational education in the secondary schools and the implications of current studies of secondary education are discussed. Examined in the next three sections are 20th-century perspectives on the purpose of vocational education; specific fields within vocational education (agricultural, business, distributive, home economics, and industrial education); and education in general. The implications of future economic, social, and technological trends for vocational education are outlined. The following key concepts are discussed in a section on developing a purpose statement for vocational education: development; individual differences; education; vocation; work; and the ethics, aesthetics, and epistemology of work. The final part reflects on the contribution to and unique purpose of vocational education in secondary education and the questions that should be asked about vocational education's purposes when deliberating on the needs of individual secondary schools. Each section includes selected quotations, a summary, and references. Concluding the volume is an epilogue by Harry F. Silberman. (MN)

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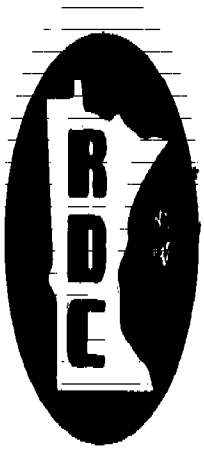

Purpose of Vocational Education in the Secondary School

Purpose of Vocational Education in the Secondary School

A Study Group

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PREFACE

To many, the most pressing problem for vocational education in the secondary schools of the United States is that it seems to have lost its direction, and consequently is jeopardizing its future place in public education. The recent studies of the secondary schools have largely ignored analysis of vocational education or have placed it in a negative or at least limited perspective. The press for increasing student time devoted to academic courses has begun to squeeze vocational education out of the secondary school. How is vocational education to react in this context? The major assumption underlying this report is that vocational education would be better served if its leaders and practitioners could more clearly state the purposes of vocational education in the secondary school and, more importantly, provide reasons for the appropriateness of the purposes which are convincing in the wider context of schooling and education. This latter characteristic, that of providing appropriate and convincing reasons, is the major focus of the effort reported here.

Essentially the report describes some important ideas relevant to a discussion of the purposes for vocational education in the secondary school. The contents are based on a year long study and focused dialogue by the authors about the purpose of vocational education. The study involved review of current studies of secondary schools, 20th century perspectives on vocational education and its specific fields, the purposes of education more broadly, future social and economic forces, and key concepts often used to give meaning to the purpose of vocational education. We hope that this report will serve to share some of the spirit and results of our study and debate together as a means to stimulate and give direction to continued thought and debate across the country.

The effort to produce this report was initiated by the formation of a study group which came to be known as the Study Group on Vocational Education in the Secondary School. Our first meeting was held on September 21, 1983. We had only one rule of conduct: you can't talk if you don't read in preparation for meetings. The process involved reading and summary of a considerable volume of literature, spirited debate over issues, and summary of interpretations or at minimum, important questions. The members of the Study Group were:

- o George Copa, Professor of Agricultural Education and Associate Director of the Minnesota Research and Development Center for Vocational Education (MRDC); research interests include planning and evaluation of vocational education.
- o Jeannette Daines, Research Assistant in the MRDC and Ph.D. candidate in Vocational Education; research interests include policy analysis as it relates to issues of human resource development, cultural aspects of schooling, and characteristics of students as they affect learning.
- o Linda Ernst, Research Assistant in the MRDC and Ph.D. candidate in Vocational Education with emphasis on the general aspects of the vocational education fields; research interests include human development through education, family, and work.
- o James Knight, Associate Professor of Agricultural Education at Ohio State University and visiting professor at the University of Minnesota (at the time); research interests include school climate and educational equity.
- o Gary Leske, Associate Professor of Agricultural Education and a research program director in the MRDC; research interests include cooperative work experience programs and vocational youth organizations.
- o John Persico, Research Assistant in the MRDC and Ph.D. candidate in Vocational Education; research interests include training and development in the private sector and cooperative work experience programs.
- o Jane Plihal, Assistant Professor in Home Economics Education and a research program director in the MRDC; research interests include teacher education, educational equity, and international education.
- o Steve Scholl, Research Assistant in the MRDC and Ph.D. candidate in Vocational Education; research interests include vocational development and special needs learners.

A review of the table of contents for this report gives a good orientation to its organization. We started our conversation together with an article by Sewell in the September 19, 1983 issue of Fortune magazine entitled, "Vocational Education That Works." From there we moved to detailed probing of current studies on secondary education, past and present perspectives on the purposes of vocational education, purposes of the specific fields within vocational education,

and purposes of education more generally, and last, future economic, social and technological trends likely to affect vocational education. Discussion resulted in certain "considerations" for formulating a statement of purposes for vocational education such as things to take into account, a sense of complexity involved, ideas about competing interests, and an understanding of how things are and how they came to be and how things might be different in the future. Next came some actual draft purpose statements for vocational education, reflection on the nature of a purpose statement (i.e., how would you know if you had one, what is the purpose of a purpose statement), and selection and analysis of key concepts central to a purposes statement for vocational education. Using conceptual analysis, a technique borrowed from philosophy, we tried to "unpack" words that we used in connection with vocational education to become more conscious of their full meaning and what it would mean to act as if we held this meaning. Last we finished (only because our time together was coming to a close) with some reflections about what we had learned concerning the process of stating purpose for an educational phenomenon represented in vocational education and the content of such a purpose statement, itself. Remember, our goal was to clarify issues relevant to a discussion of the purpose of vocational education in the secondary school, provide some helpful ideas and stimulate and direct further thought and debate among others.

Dr. Harry Silberman, Professor of Education in the Graduate School of Education at the University of California-Los Angeles, was one of the first persons invited to provide further thought and comment on our work at a symposium held at the American Vocational Association Annual Meeting. He consented to have his remarks included with this report as a start toward continued and wider ranging dialogue among others.

We hope this report will help make clear the breadth and depth of study and discussion required to develop and adequate position on the purposes of vocational education in the secondary schools of the United States. A position of this reasoned nature will be required if the position is to be convincing to other educators, to policy makers and to the general public. But even more significant to us, a position which has undergone this scrutiny should also be in the best interests of vocational education as a field of professional practice. We hope that the process of study which we used and its pattern of tangible results shared here will stimulate you to think and debate these important issues.

In all of this, we have seemed to continuously raise the issue of the legitimacy of vocational education as an integral part of education, particularly "academic" education. Often there was a movement between high hopes and a sense of the futility in addressing this issue. We chose to close this preface with a poem that seems to capture this essense, but on a higher level raises an idea we think worth reflecting upon and giving encouragement to step beyond the tension between learning by hands and by head--to consider that the mind as center of learning may be much more diffuse and our bodies much more integrated than these two naive conceptual categories would imply.

The Mind in Hand

By Miles Richardson
Louisiana State University

"Where is the mind?
In the hand or the brain?
"In the brain, of course."
Students always reply.

"Look how the hand
reaches out. How it grasps.
Look at the way
it touches. How it caresses.

Look at the hand,
gripping a hammer,
threading a needle,
cuddling a baby.

Look at the hand,
as it feels,
as it writes,
even as it speaks.

Look at the hand and
tell me, "where's the mind?"
"In the brain, of course,"
Students always reply.

Special thanks go to the many heads and hands which helped move this manuscript from taped conversation and hand written notes to the form in which it is presented here. Those carrying this responsibility include: Mary Gupta, Conny Rime, Patricia Noeldner, Vivian Gordon, Karen Schuller, LaRayne Kuehl and Merri Fromm.

G.H.C.
June, 1985

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Part I

Importance of Re-Addressing Purpose of Vocational Education in the Secondary School

The purpose of this effort was to develop a framework for thinking about the purpose(s) of secondary vocational education. This framework will be used to provide direction to specific research projects focused on areas such as equity, school climate, employer satisfaction, and quality of secondary vocational education. That direction will be articulated by developing a statement which clarifies the issues involved in developing a purpose statement for vocational education in the secondary school and, to the extent possible, brings helpful ideas and/or closure to these issues. For some issues, this may mean simply describing alternative positions on the issues and the bases for these positions. The direction statement should serve to better define problems and research approaches for planning subsequent research activities.

The process of work used depended mainly on study group participation in: (a) discussion of the topic, (b) orderly progress through important issues, (c) sufficient study of background information and alternative perspectives, (d) building of consensus on significant issues, and (e) cumulative, accurate synthesis of group activities. A series of meetings was conducted to accomplish the task. Study group members examined background materials in preparation for each week's meeting.

Introduction

A recent article in Fortune entitled, "Vocational Education That Works" (Sewall, 1983), contrary to its title, was extremely critical of secondary vocational education as found in comprehensive high schools. Sewell indicated that it:

1. Lacks common and focused goals.
2. Lacks up-to-date equipment.
3. Is inappropriately tailored to students' levels of development.
4. Lacks rigorous standards.
5. Does not teach basic skills in mathematics, language and science.
6. Is out of date in content.

7. Is unrealistic in its objectives.

8. Lacks linkage to employers.

9. Lacks qualified teachers (and the resources to hire them).

Dismissing questions regarding the validity of the evidence used to justify these conclusions and the reporting style used for communication, a reflective and careful response to Sewall's "rightness" would depend on the purposes one holds for secondary vocational education. If that purpose was primarily initial job placement and assuming his evidence was valid, the response might be that he was right. However, consider for the moment a different set of purposes such as long term employability, making academic education more relevant, exploration of the world of work, preparation for advanced education, or explicitly including work of the home along with work in industry. How critical does up-to-date and sophisticated equipment now become? What would be appropriate content if these were the purposes of secondary vocational education? How important would it be to have teachers with a large amount of recent and relevant occupational experience? What would rigorous standards look like for this educational program? How would work be defined? Would the emphasis be on short or long term consequences for students? Would it make sense to provide these programs in separate, specialized high school facilities?

The question of purpose seems primary--it is begged by every other question. Unless one is clear about the purpose of secondary vocational education, it is very likely that one is apt to ask the wrong questions for purposes of program improvement and accountability. And, with false consciousness of doing what is right, use these results to lead in an inappropriate direction. Turning then to the primary question of purpose, how is it best approached and resolved?

A Strategy for Deriving a Concept of Purpose

There are many ways to think about where to look for ideas and thoughts about purpose in an educational program such as secondary vocational education. One could look to educational philosophers, to present state and federal laws and regulations, to past and present leaders in vocational education, to those teaching or administering vocational education programs today, or to those bearing the consequences of secondary vocational education--present or former students, parents, and employers.

In order to thoughtfully select what input would be included in such an effort and to explicitly recognize what would be left unexamined, a general framework was developed to guide decision making. This framework is shown as Figure 1. The framework is focused on the purpose of secondary vocational education at the present time, the goal of this effort. Surrounding this more focused goal is consideration of present thinking about secondary education more generally. Understanding present thinking about education would in turn benefit from a broader examination of social currents, both national and international. This focus on the present in a broader and broader context is shown as a series of concentric circles in Figure 1 with secondary vocational education as the center of focus and broad social currents at the perimeter.

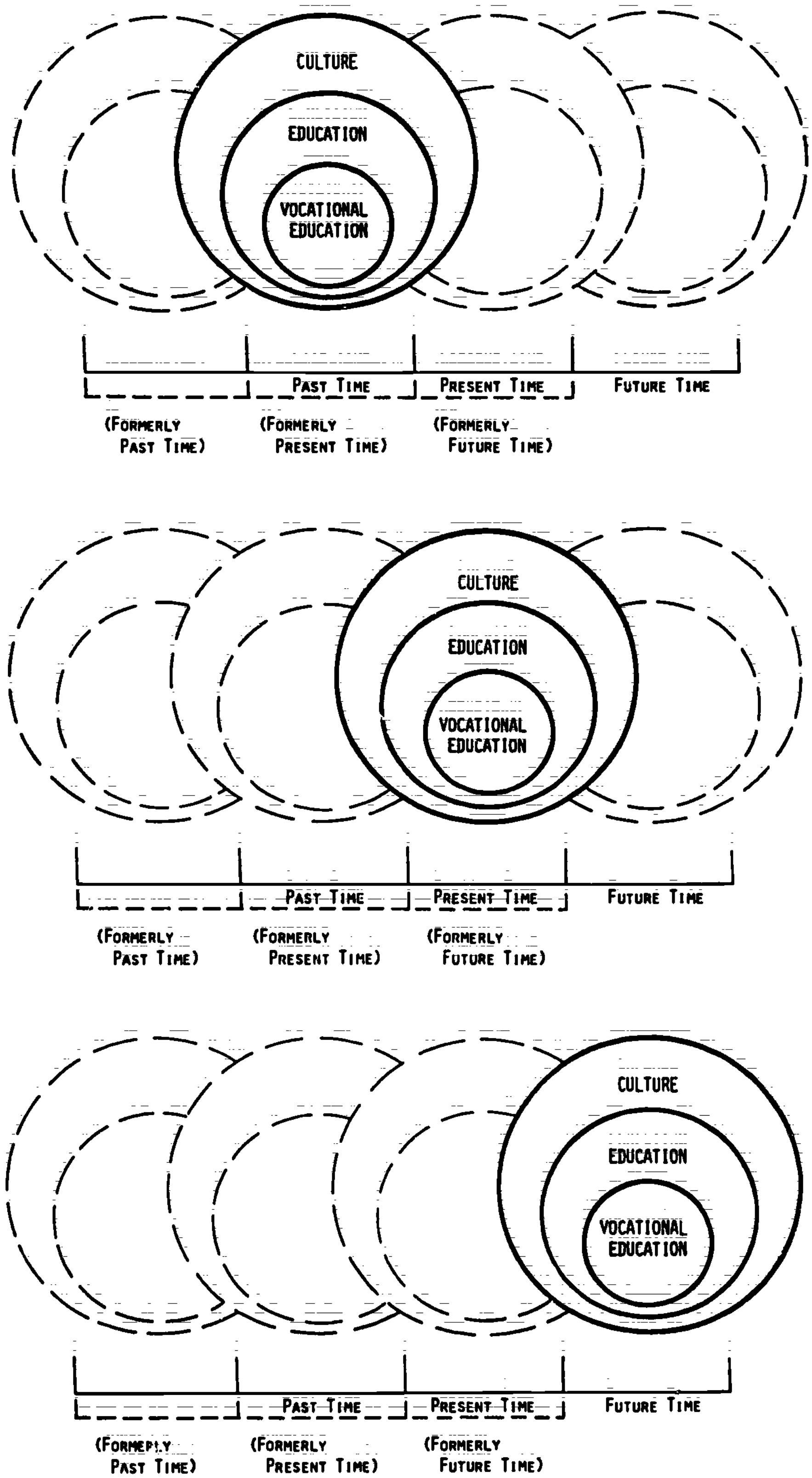
In addition to focus on the present, a similar examination of both the past and future would provide insight into how things have come to be as they are and how things ought be changed to create a better future. These considerations are shown in Figure 1 by showing additional series of concentric circles expanding the framework horizontally, both to the right (future) and left (past).

The strategy adopted to derive a concept of purpose for secondary vocational education in this effort was to focus attention specifically on: (a) present critiques of secondary education, (b) past concepts of purpose for secondary vocational education, (c) past concepts of purpose for secondary education, and (d) future social currents. Each of the examinations pressed specifically toward implications for secondary vocational education. The criteria used to select this strategy for deriving purpose were: (a) the amount of time and resources available for the effort (both very limited), and (b) an interest in re-examination of the issue of purpose of secondary vocational education in a fresh light without keying-in immediately to present notions of purpose which are coming under significant critique.

Reference

Sewell, G. T. (1983, September 19). Vocational education that works. Fortune. p. 68-78.

Figure 1. A framework for deriving a concept of purpose for secondary vocational education.



Part II

Implications of Current Studies of Secondary Education

There is currently a flurry of reports being brought before the public concerning public secondary education in the United States. The first task selected by the study group was to identify these studies, secure copies of the resulting reports (or what had been announced publicly), read the reports, and summarize findings which may have implications for the purpose of secondary vocational education. The reports examined with selected quotations and major points with respect to their findings follow.

Selected Quotations and Major Points

o National Commission on Excellence in Education. (1983). A nation at risk. Washington, DC: U.S. Government Printing Office.

Selected Quotations

> Our goal must be to develop the talents of all to their fullest. Attaining that goal requires that we expect and assist all students to work to the limits of their capabilities. (p. 13)
>
> At the heart of such a society is the committment to a set of values and to a system of education that affords all members the opportunity to stretch their minds to full capacity, from early childhood through adulthood, learning more as the world itself changes. Such a society has as a basic foundation the idea that education is important not only because of what it contributes to one's career goals but also because of the value it adds to the general quality of one's life. (p. 13-14)
>
> We must demand the best effort and performance from all students, whether they are gifted or less able, affluent or disadvantaged, whether destined for college, the farm, or industry. (p. 24)

Major Points

- High school requirements need to be strengthened to include the basics (English, mathematics, science, social studies, computer science, and foreign language).
- Colleges and universities need to raise admission requirements.
- More time should be spent on learning the "New Basics" by making a longer school day, a longer school year, or by spending time available

more efficiently.

- The teaching profession should be more rewarding.
- Local, state and federal government must recognize the need to achieve these reforms.

o Goodlad, J. I. (1984). A place called school. New York: McGraw-Hill.

Selected Quotations

> The theme I pursue here is twofold. First, as we have already seen, teachers, students, and parents in the schools we studied want more than is implied by the words "intellectual development." They want some reasonably balanced attention to intellectual, social, vocational, and personal emphases in the school's program of studies. Second, even all of these would not be enough. The school is to be also, in the eyes of parents and students, a nurturing, caring place. The parents we encountered want their children to be seen as individuals--persons and learners--and to be safe. Their children want to be known as persons as well as students. Many teachers, too, would like there to be greater school attention to students' personal attributes such as those once implied by the word "deportment" on report cards, though, as we shall see more clearly later, they have a difficult time moving beyond the pedagogical baggage of academics to achieve such emphases. (p. 61-62)

> The categories of the prototype will be the same for all students. For specification of these broad categories, I go back to the recommendations of the Harvard report, General education in a free society, discussed in Chapter 5. If we can agree on the importance of the "five fingers" of human knowledge and organized experience--mathematics and science, literature and language, society and social studies, the arts, the vocations--then it remains to determine the desired balance, acceptable degrees of variance among them, and the time, if any, to be left completely free for individual choice. (p. 286)

Major Points

- Parents, teachers, and students were asked to rate the four areas of social development, intellectual development, personal development, and vocational development on their importance in the educational setting, elementary through high school. Parents and teachers rated intellectual development highest; however, the other areas also received high scores. They saw a combination of the above areas as important goals for education. Goodlad also found that for teachers and parents the preferred emphasis was fairly consistent with what they felt was happening in the

school.

- Goodlad proposed the following outline as goals for schooling in the United States.

  A. Academic goals

     1. Basic skills
     2. Intellectual development (ability to think rationally)

  B. Vocational goals

     1. Career education

  C. Social, civic and cultural goals

     1. Interpersonal understandings
     2. Citizenship participation
     3. Enculturation
     4. Moral and ethical character

  D. Personal goals

     1. Emotional and physical well being
     2. Creativity and aesthetic expression
     3. Self-realization

- Students are tracked vocational or academic (he calls it handedness or headedness) as a result of groupings in the elementary grades.
- The poor and slow learners become involved in the handedness track. However, he concluded that vocational education in school is irrelevant to job fate.
- People must look at the problems of schools as a system.
- Decision making and authority regarding schools must be shared by administrators, teachers, and parents. There should be more decentralization than at present.
- Students who are less able have the same right to be exposed to all learnings.

o Task Force Education for Economic Growth. (1983). Action for excellence. Denver: Education Commission of the States.

Selected Quotations

> It is the thesis of this report that our future as a nation--our national defense, our social stability and well-being and our national prosperity--will depend on our ability to improve education and training for millions of individual citizens. (p. 14)

> Our commitment to democratic values, to free individual choice and to equality of opportunity forbid us to establish an educational caste system. (p. 17)
>
> To sum up: we have expected too little of our schools over the past two decades, in terms of quality--and we have gotten to too little. (p. 32)

Major Points

- Major imperatives for schools are to upgrade the definition of basic skills and to mobilize the school system to teach these skills.
- Because of advancing technology, "basic" must be more than simple reading, writing, mathematics, and science skills; it must include higher order skills (e.g., reasoning, influence, problem solving). These "learning to learn skills" broaden the definition of basic skills.
- The United States must raise both the ceiling and floor in educational achievement.
- A classification of jobs based upon required skill is presented:
    1. Unskilled jobs--require less than today's basics (e.g., janitor).
    2. Basic jobs--require today's basics (e.g., store clerk).
    3. Learning to learn jobs--require basics plus learning to learn (e.g., most factory and service jobs)
    4. Professional jobs--require basics plus learning to learn plus more sophisticated intellectual skills.
- If knowledge is power, society must increase knowledge of all, not a few.
- Students don't take enough science and mathematics (1 in 5 takes physics).
- There is a gap in teacher quality.
- Curriculum must focus on motivational as well as cognitive goals.
- Need to increase instructional time in academic subjects.
- There is a perception gap between what teachers think is adequate preparation and that required by employers; education/business partnerships are needed.
- There is a need to marshal resources to improve and develop public confidence in school; education is a chief responsibility of state and local communities.

o Twentieth Century Fund Task Force on Federal Elementary and Secondary Education Policy. (1983). Making the grades. New York: Author.

Selected Quotations

> Educating the young is a compelling national interest, and that action by the federal government can be as appropriate as action by state and local governments. (p. 4)
>
> Whatever the fate of the Department (of Education), we urge that the collection of data remain a federal responsibility. (p. 15)
>
> Too many young people are leaving the schools without acquiring essential learning skills and without self-discipline or purpose. (p. 1)
>
> Disaster can be averted only if there is a national commitment to excellence in our public schools. (p. 1)
>
> In essence, the skills that were once possessed by only a few must now be held by the many if the United States is to remain competitive in an advancing technological world. (p. 2)

Major Points

- A federal presence should be maintained in education, but it should be less obtrusive.
- A national Master Teachers Program that recognizes and rewards teaching excellence should be established and funded by the federal government.
- The Federal government should state that the most important objective of elementary and secondary education in the United States is to develop literacy in the English language.
- Federal funds can support bilingual programs for the purpose of teaching non-English speaking children to speak, read, and write English.
- Every student should have opportunity to acquire proficiency in a second language.
- Federal government should emphasize programs to develop scientific literacy for all and to provide advanced training in science and math for secondary students.
- Federal programs for the poor and handicapped should continue.
- The Federal government should assist depressed areas with immigrants and impoverished groups to improve educational performance.
- Research should be done to (a) collect factual information about aspects of the system; (b) collect information about performance of

students, teachers and schools; (c) evaluate federally sponsored programs; and (d) examine the learning process.

- Special federal fellowships should be provided for students needing remediation; these could be awarded to school districts to encourage creation of small, individualized academies staffed by certified teachers.
- Tuition tax credits were opposed.
- Strong commitment to merit pay was expressed.

o Adler, M. J. (1982). The paideia proposal: An educational manifesto. New York: MacMillan.

Selected Quotations

> In the Twentieth Century, we demand twelve years of common schooling at public expense for every child in the country. It is no longer a radical demand. But our present tracking system of public schooling still divides children into those destined only for labor and those destined for more schooling. (p. 12)
>
> The twelve years of basic schooling must prepare them for this task, not by training them for one or another particular job in our industrial economy, but by giving them the basic skills that are common to all work in a society such as ours. (p. 17)
>
> . . . be best defined, positively, by saying that it must be general and liberal; and negatively, by saying that it must be nonspecialized and nonvocational. (p. 18)
>
> In the later years they should receive instruction to prepare them for choosing and finding a career. This is not done by requiring them to make a premature choice of a job and by giving them training for that particular job. Rather, the young person should be introduced to the wide range of human work--the kinds of occupations and careers, their significance and requirements, their rewards and opportunities. (p. 33)

Major Points

- In every school, in grades 1-12, there should be the same quantity and quality of education--a one-track system for all.
- With few exceptions, every child is educable--not just trainable for jobs; there are no unteachable children.
- The three main concerns of public schooling (12 years) are: (a) personal growth or self-improvement--mental, moral, spiritual; (b) citizenship; and (c) vocational development (basic skills common to all work--not job training).

- Three main modes of teaching and learning are: (a) acqusition of organized knowledge--didactic instruction; (b) development of intellectual skills--coaching, supervised practice; and (c) enlarged understanding of ideas and values--Socratic questioning.
- Eliminate all "non-essentials" from the school day--if retained make them extracurricular.
- Eliminate from the curriculum all training for specific jobs.
- Introduce the study of a second language for a sufficient period of time to assure competence in its use.
- Eliminate all electives except choice of language.
- Restore homework and home projects.
- Develop adequate preschool preparation.
- Utilize remedial instruction.
- Teachers for such a program should have a broad liberal education, be paid adequately, and have better working conditions.
- The principal should be an instructional leader.
- Vocational (job) training should occur at technical schools with a strong liberal education program component.

o Boyer, E. L. (1983). High school. New York: Harper & Row Publishers.

Selected Quotations

> There is a growing national consensus that our future depends on public education. (p. 1)
>
> Clearly, education and the security of the nation are interlocked. (p. 5)
>
> But to push for excellence in ways that ignore the needs of the less privileged students is to undermine the future of the nation. (p. 6)
>
> We need to put students in touch with knowledge in a coherent way so that they are contributing members of a common culture. (p. 66)
>
> More substance, not more time is our most urgent problem. . . . Our goal is not to impose a single curriculum on every school, but to underscore the point that what is taught in school determines what is learned. (p. 84)
>
> The mastery of English is the first and most essential goal of education. (p. 93)

We believe, however, the American public education is beginning to improve. (p. 39)

But when it comes to preparing students for a specific job and putting them on the first hinge of the career ladder, the results of vocational education are largely disappointing. (p. 120)

Job prospects for graduates of vocational programs are not much better, overall, than they are for students in the nonspecialized curriculum. (p. 121)

Increasingly, it appears, high school vocational programs will be either irrelevant or inadequate. At one end will be low-paying, dead end jobs for which formal education will not be required and to which precious school time should not be given. (p. 123)

We propose four essential goals and the ways these goals can be achieved.

> First, the high school should help all students develop the capacity to think critically and communicate effectively through a mastery of language.
> Second, the high school should help all students learn about themselves, the human heritage, and the interdependent world in which they live through a core curriculum based upon consequential human experiences common to all people.
> Third, the high school should prepare all students for work and further education through a program of electives that develop individual aptitudes and interests.
> Fourth, the high school should help all students fulfill their social and civic obligations through school and community service. (p. 66-67)

After visiting schools from coast to coast, we are left with the distinct impression that high schools lack a clear and vital mission. They are unable to find common purposes or establish educational priorities that are widely shared. They seem unable put it all together. The institution is adrift. (p. 63)

The world has become a more crowded, more interconnected, more volatile and unstable place. If education cannot help students see beyond themselves and better understand the inter-dependent nature of our world, each new generation will remain ignorant and its capacity to live confidently and responsibly will be dangerously diminished. (p. 54)

We do not suggest that schools can be society's cure for every social ill. A report card on public education is a report card on the nation. Schools can rise no higher than the communities that support them. And to blame schools for the "rising tide of mediocrity" is to confuse symptoms with the disease. (p. 5-6)

> More frequently, however, we found low academic standards and a stigma attached to teaching nonacademic students, many of whom were in vocational education. One administrator describes the tracking in his school as "insidious and discriminatory." As he puts it: The initial assignment is critical and it occurs in elementary school. It completely determines what the student will come away with. Some students come into school, get lost in a nonacademic life--do nothing, learn nothing, just hang around for four years. (p. 125)
>
> Putting students into boxes can no longer be defended. To call some students "academic" and others "nonacademic" has a powerful and, in some instances, devastating impact on how teachers think about the students and how students think about themselves. (p. 126)

Major Points

- Future and national security are closely related to public education.
- Excellence in education must not ignore needs of the less privileged.
- Four proposed purposes of education are to (a) develop critical thinking, (b) understand human heritage, (c) prepare for further education and work, and (d) build a spirit of community and service.
- For schools to educate, a shared sense of purpose has to exist and permeate all those involved.
- Electives should only amount to one third of the total program.
- More substance is needed within the allotted time, not more time.
- Curriculum recommendations: (a) English is first priority, and (b) the curriculum core (to enlarge one's vision/global perspective) should include cultural literacy, history (U. S., West, Non-Western), science, math, foreign lanuguage, arts, technology, health, work, senior independent project, and service.
- High school has to provide for those not going to college the transition to citizenship in society.
- Elimination of tracking is recommended.

Implications for Purpose and Process of Secondary Vocational Education

Beyond consideration of the above selected quotations and major points, an attempt was made to examine the content of these studies for specific implications for secondary vocational education. The approach taken was to entertain four questions with respect to the studies: (a) What is "wrong" with secondary

education?, (b) what is "right" with secondary education?, (c) what are the implications of what is wrong and right for the purpose of secondary education? and (d) what are the implications of this purpose of secondary education for the purpose of secondary vocational education? These questions have a logical order to address--starting with question (a) and moving to question (d)--as a means to provide internal validity to the response to question (d). Emerging from the exploration of these questions were implications for two aspects of secondary vocational education--its process and its product. The results of discussing the studies are shown in Table 1.

A review of the contents of Table 1 and the discussion leading to these contents reveals some interesting insights about the current study reports under examination. First, the reports focus more on what is wrong with secondary education than what is right about it. Most of the items listed under "what is right" were derived from the implications about "what is wrong" rather than directly from the reports.

Second, while there is considerable agreement on the need to spend more time on the basics, there is disagreement as to what the basics entail. The range is from the Carnegie Commission's idea (Boyer, 1983) of the basics being communication skills, a wider vision beyond one's own life, and knowledge of the past to the National Commission on Excellence in Education's notion of the basics as English, mathematics, social studies, science, foreign language, and computer science. The Carnegie Commission suggests that English is the most crucial of these subjects. One explanation may be to envision the basics as being defined on a continuum from very specific (and perhaps more instrumental) to very general (and more broadly consequential). For example, at the specific end, the basics might be described in subject matter terms such as English and mathematics, while at the general end in terms such as being empowered to improve society. In between these two ends would come basics described in terms of communication skills, knowledge of past, and wider vision beyond self--or as Goodlad suggests, problem solving, thinking, analysis, and evaluation skills. Given this explanation, several of the above studies can be critiqued for focusing their recommendations too narrowly on basics described in terms of subject matter with little rationale linking subject matter to more general notions of the basics.

Table 1

Implications of Selected Current Studies of Secondary Education for the Purpose and Process of Secondary Vocational Education

What is wrong?	What is (or would be) right?[a]	Implications for secondary education	Implications for secondary vocational education
		Purpose	Purpose
-Students do not get enough basics (mathematics, science, social studies, English, and foreign language)	-Schools should exist; they do serve a purpose.	-Mastery of certain basics as a means to impower as a means to improve society.	-Make basic skills more relevant to student's life and thereby learning more satisfying.
-School is too removed from "real" world.	+Twelve years of school is appropriate.	-Motivation to learn.	-Facilitate higher order learning of basics (i.e., application).
-Students are forced to stay in school too long regardless of other opportunities.	-All students should get a "good" education.	-Self-directed people.	-Assist student to be self-directed (i.e., in control, confident, empowered, self-managing) in work aspects of life.
-Too much variation in curriculum; ought to be the same for everyone.	-Teachers are needed in schools.	-For all students.	-Integrate the basics around a life role (i.e., work).
-Job specific training at the secondary level.	+Students should have opportunity to do community service.	-No specific job training if it detracts from mastery of the basics.	
-Little variation in instructional format.	+More meaningful electives should be available.	Process	
-Students not encouraged to develop higher level of thinking.	-Business and industry should be involved in the school.	+Opportunity for community service.	
-Poor quality of teachers; teaching the way taught; very "flat."	-Local and state government are primarily responsible for school policy; federal government should be involved to extent of national interests.	-Involve business and industry.	
	-Make better use of time already available in school.	-Local and state government primarily in control.	
		-Make use of available time.	
		-Knowledgeable teachers.	

Table 1 (continued)

Implications of Selected Current Studies of Secondary Education for the Purpose and Process of Secondary Vocational Education

What is wrong?	What is (or would be) right?[a]	Implications for secondary education	Implications for secondary vocational education
-Little incentive for teachers to do well.	+Increase the length in secondary school; vocational exploratory experiences are appropriate.	-Teachers rewarded for good teaching.	
-Basics not defined properly--should include "learning to learn" skills.	-Want both excellence and equity in school program.	-Teachers enthusiastic.	
-No clear purpose.	-Basics should be covered.	-Teachers not doing non-teaching activities.	
-Lot of time is being wasted in school.	+Basics include mathematics, science social studies, English, foreign language versus basic include computer science, versus basics include communications wider vision, and knowledge of past.	-Teachers have advancement possibilities.	
-Reform must consider culture of each school.		-Grades based on clear standards.	
-Basics defined too narrowly--should address communications skills, wider vision and knowledge of past.	-Teachers should be knowledgeable, rewarded for good teaching, drawn from higher ability students, enthusiastic, relieved of non-teaching responsibilities, and have advancement possibilities.	-Use performance testing.	
-Students not involved in community service.		-Variety in teaching methods.	
-Basics should include computer skills.		-Discipline enforced.	
-English (literacy) most important basic skill.	-Grades should mean something--based based on explicit standards; performance testing should be used.	-Clear, achievable goal statements.	
		-Resources available to accomplish goals.	
		-Articulation between formal and non-formal education.	

Table 1 (continued)

Implications of Selected Current Studies of Secondary Education for the Purpose and Process of Secondary Vocational Education

What is wrong?	What is (or would be) right?[a]	Implications for secondary education	Implications for secondary vocational education
-Teachers are not paid enough; need to relate pay to merit.	+There should be variation in student's programs.		
-Teachers need a a career ladder (advancement-possibilities).	-Variety of teaching methods should be used.		
-More time is needed to teach.	-Discipline should be enforced firmly.		
-Schools need to be firmer with rules and discipline.	-Have clear and achieveable goals.		
-Expectations too high for schools; want them to do everything.	-Resources must be available to deliver on goals.		
-There is a "perception gap" between what teachers think is adequate and what employers need.	-Articulation between formal and non-formal education.		

[a]Or the implications for what would be considered right from what was said to be wrong.

Note. A "+" preceeding a statement means that the reports disagreed on this statement.

Third, the reports imply a need for consideration of both excellence and equity. They suggest everyone needs to master the basics. Little insight is provided for the situation where resources are not sufficient to have both excellence and equity. What is the priority in a real world of limited resources?

Fourth, the reports are relatively silent about vocational education. These words are used very infrequently; it is almost as if vocational education was not known, or if known, was not to be legitimatized or was simply not relevant to the studies' analyses and recommendations. While several suggested that specific job training not be a part of secondary education, especially if it was to detract from mastery of the basics, career exploration activities seemed to be readily acceptable. A question raised concerning this issue was whether the general educational background and professional expertise of various individuals making up the study teams (or task forces) had consequences for the study results. It was difficult to tell whether they were knowledgeable about vocational education and whether this knowledge was brought to bear.

Fifth, there is little hard empirical data presented in the reports to serve as a basis for problem definition and recommendation. For this reason, it is very difficult to judge validity using a disciplined inquiry perspective. Perhaps, since the reports were written for public consumption, this data was omitted to reduce the reading level but exists in background papers and more complete final reports--no attempt was made by our study team to investigate this issue. In the case of two of the studies, that by Goodlad and the Carnegie Commission, the study group operated from only journal and newspaper accounts since the reports were not yet available.

Sixth, as revealed in Table 1, there is considerable disagreement among the reports on issues related to improving secondary schools. For example, while several of the studies suggest more time is needed for schooling, the Carnegie Commission suggests less time should be spent in school. In turn, while Goodlad argues for a more meaningful set of electives, the Paideia Proposal recommends a standard curriculum with almost no electives (except choice of language). In addition, the difference in definition of the basics has already been described.

Seventh, in reflecting on what the studies suggested was wrong and right (or implications for what is right) with secondary education, it is apparent that many of the suggestions concern the process of education more than its purpose. For that reason, the section on implications for secondary education

column in Table 1 is sub-divided into implications for purpose and for process. Many of the process implications refer to how to more effectively and efficiently accomplish suggestions for purpose. Since the process implications would seem to apply to all aspects of secondary education, they are not repeated again under the column listing specific implications for secondary vocational education.

Summary

Even with the above comments, analysis of the current studies did suggest provocative implications for the purpose of secondary vocational education. Perhaps the most meaningful summary is to repeat those implications as shown in Table 1. The purpose of secondary vocational education might be considered to be:

1. Make basic skills more relevant to student's life and thereby learning more satisfying.
2. Facilitate higher order learning of basics (i.e., application).
3. Integrate the basics around a student's present and future life role (i.e., work).
4. Assist student to be self-directed (i.e., in control, confident, impowered, self-managing) in work aspects of life.

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Goodlad, J. I. (1983c, April). A study of schooling: Some implications for school improvement. Phi Delta Kappan, 552-558.

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Waxman, H. (1983, April). Methodological problems in a place called school. Educational Leadership, 50-52.

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Part III

Implications of 20th Century Perspectives on the Purpose of Vocational Education

In order to place the previous section concerning the implications of current studies of secondary education in context, a second strategy used in the search for purpose of secondary vocational education was to examine the perspectives of those who had addressed the purpose of vocational education in the past. In selecting historical perspectives, an attempt was made to include early 20th century leaders in the field of vocational education as well as some more recent position statements. It was not possible to examine all of the position statements that may have been written, particularly those most recent. Rather, the direction taken was to try to sample in a purposive way so as to include a wide variety of perspectives. A limitation of this approach is that it does not provide good evidence about the normative or most common perspective held. However, it seemed more appropriate for the purposes of the study group to seek the widest possible diversity as a means to stimulate fresh thought and creative ideas and to insure the early representation of a broad set of interests in vocational education.

As in the previous section, the results of the study group's work will first be summarized by listing selected quotations and major points from the individual perspectives examined, and then by including a synthesis of discussion results concerning implications for the purpose of secondary vocational education. The presentation of significant quotations and major points will begin with early key leaders in vocational education; more recent perspectives will follow. No importance should be attached to the specific order of presentation.

Selected Quotations and Major Points

o Snedden, D. (1920). Vocational education. New York: MacMillan.

Selected Quotations

> There can be no helpful vocational education that does not rest on a sound system of economics. The painful years are showing

us how little legislators, business men, labor leaders, and educators know of the enduring laws of economics and how, out of the soil of this ignorance, rank poisonous plants of fantastic creed and malevolent purpose may easily grow. The ignorance of the citizenry of today, confronted by the endless economic problems produced by modern conditions of production, is comparable to that of the primitive natives in Mediterranean countries and later in North America when the currents of commerce sowed wide the seeds of the bubonic and other plagues. But there are few current economic problems which do not intimately affect, and are not intimately affected by, vocational education. Man must produce economic goods if he is to live; he must produce them well and efficiently if he is to live well and efficiently; and he must be trained long and exactingly if he is to produce efficiently. As far as present conditions of thought permit, the writer has tried to hold up for consideration in the background the most pertinent of the economic problems underlying vocational education. (p. viii and ix).

Shall we have vocational education in the high school? Yes, if the floors and grounds of the high school, primarily designed to serve the purposes of liberal education, can be adapted to give practical training to locomotive engineers, coal miners, street car motormen, sailors, printers, shoe machine operatives, traction engine drivers, poultry raisers, carpenters; no, if sincere and honest (not camouflaged) vocational education for these callings requires the provisions of realistic working conditions and genuine productive work. (p. 24)

When the learner, whether at fifteen, twenty, or twenty-five years of age, is ready to enter upon his vocation (or, equally, the vestibuled approach to it, provided by the vocational school) shall he give one hour daily to some dainty studies of that vocation, or shall he give to its pursuit an honest seven or eight hours daily? For the present we see neither sincerity nor effectiveness in the "blended" or "layer cake" programs of liberal and vocational education as it is often proposed to organize these within the working day. (p. 24)

There are those, indeed, who also foresee a period in the life of the strong woman when, after her children are grown, the routine of homemaking for two adults will not suffice to keep her powers adequately employed. For this period of her life also, she might well have the needed guidance, training, and opportunity to render such economic service as she can. (p. 40)

Major Points

- There are three types of problems to consider. First are problems of meaning: What do we actually mean and intend by vocational education? Under what conditions and to what extent is it different from

nonvocational education? Second are problems of aims: Is society expected to provide schools for all possible forms of vocational education? In the case of any given vocation what are desirable limits to school directed training, instruction and idealization? And third are problems of method and of administration: Having once determined what we seek, how shall we proceed to reach our goals?

- The word "vocation" refers to the sense of calling, chief occupation or primary gainful pursuit. A distinction is made between direct and indirect vocational education. Indirect vocational education is referred to as vocational by-education because it is a by-product of activities assigned primarily for other purposes. Direct vocational education includes "only those forms in which training for a specified vocation is the primary, central, and controlling purpose, and in which production, recreation, control, etc., are all regarded as secondary, minor, or incidental purposes" (p. 8). Snedden argues that, although the bulk of the world's vocational education has been and is essentially by-education, more direct vocational education is needed.
- The purpose of vocational education and indicators of its effectiveness were clearly expressed: "The primary aims of vocational education being, then to enhance directly the productive powers of the individual (the objects of liberal or general education being to improve his powers of utilization), it follows that the effectiveness of that education for any period and for any occupational field, whether as by-education or as direct education, must be determined primarily in terms of results as found in the total productive life of the individual . . ." (p. 35).
- Productive capacity can be measured in terms of the exchangeability of one's efforts for the services of others.
- Vocational education should primarily serve the status quo of society rather than attempt to shape the society or anticipate changes in vocational needs and patterns. "Any comprehensive program of vocational education must be designed primarily to prepare young persons for the effective exercise of productive vocations as now found; it may be designed secondarily and incidentally to anticipate probable social changes in the character and incidence of vocational activities; and, under some circumstances (taking due account of the relatively

fundamental and only slightly controllable character of economic forces), to further desirable, and to restrain undesirable, economic tendencies by its emphasis on one or the other of different possible education objectives" (p. 411).

- Appraisal of the place of women in vocational education and in productive activities seems fuzzy and not entirely consistent. Child rearing was largely claimed to be the responsibility of women and that was their chief role in life: "The effective rearing of children in the capacity of wife and mother must always have priority of importance as woman's work" (p. 414). Although Snedden did state that "women have always been producers of economic service equally at least with men" (p. 414), he seemed to believe that women's strength and ability limit the location and type of productive service they can render. However, he went on to say, they should not be made parasites or dependents. "It is a reasonable expectation that women will, in proportion to their strength and ability, always continue to be, no less than men, producers of valuable service. From time to time in past history, as well as at present, wealthy and powerful men have been able and have preferred to maintain their wives, daughters and female entertainers in the half-parasitic condition which enhances their aesthetic and convivial attractiveness" (p. 414). This state of conspicuous, but socially unproductive, consumption was described as a social disease.
- Little emphasis is given to home economics education in the secondary school. The concept of home economics education appears to be limited to training females to become skilled at performing housekeepng tasks. "Where girls have had or can be induced to obtain a large amount of practical experience in their own homes, and if the school instruction is definitely correlated with such home experience, the net outcome will be a form of 'vocational extension education' which may prove to be somewhat valuable for farmers' daughters and others not leaving the home to work for wages. But for the large majority of girls in our industrial and commerical cities, home economics education given at the ages from twelve to sixteen will probably produce little permanent power of 'execution'; but it will, when properly organized, give rise to appreciations of a fairly definite sort, useful as foundations for subsequent training in

skill and management." (p. 453) "The years immediately preceding and immediately following marriage are, in the last analysis, the best for education in homemaking as a vocation" (p. 454).

- Prosser, C. A., & Quigley, T. H. (1949). Vocational education in a democracy. Chicago: American Technical Society.

- Prosser, C. A. (1913, March). The meaning of industrial education. Vocational Education, 401-410.

Selected Quotations

> Education is the result of experiences whereby we become more or less able to adjust ourselves to the demands of the particular form of soci ;y in which we live and work. (p. 1)
>
> Vocational education becomes that part of the total experience of the individual whereby he learns successfully to carry on a gainful occupation. (p. 2)
>
> To the degree that occupations are intellectually deadening and emotionally coarsening, causing the citizen to seek escape from them, to that degree are the individual citizens and society in an alarming state. (p. 17)
>
> The social purpose of a liberal education--especially of public liberal education in a democracy--rather than being for the worthy use of leisure seems to be far more for the fuller participation in the earnest work of the world. (p. 19)
>
> Successful men and women live, move, have their beings, and rise to social eminence through, and within the atmosphere of, their occupations. (p. 21)
>
> If his work or vocation is neither personally enjoyable to himself nor socially valuable to his fellows, the "living" earned by it will correspond. (p. 25)
>
> It should be said in passing that when the American technical high school now so common in our large cities finds its real field of service, it will not be as a preparatory school for the engineering college--a service which that college does not regard as necessary since its entrance requirements still recognize and favor the old line high school. It will be as a finishing school preparing young men (and young women) for favorable entrance, as prospective non-commissioned officers, and possibly ultimately as executives, on the business and directive side of industry and commerce. (p. 73)
>
> Its purpose should be not to supplant but to supplement general education. (p. 126)

Once a pupil has entered upon vocational training, its controlling purpose should be to equip him for the work he wants to do. (p. 127)

Vocational education offers a greater opportunity than other forms of training for developing habits of thinking which as habits may be carried over by the individual and used in dealing with civic and social problems. (p. 93)

General education prepares us to live well. Vocational education prepares us to work well. (p. 401)

While the dominant purpose of vocational schools always must be to prepare boys and girls for successful wage earning, no school worthy of the name will fail at the same time to fit its pupils for intelligent citizenship. (p. 401)

The American schools will become truly democratic when we learn to train all kinds of men in all kinds of ways, for all kinds of things. We will do this, when the American people, including the American schoolmaster, begin to realize it is just as important to make a good blacksmith, a good carpenter, a good mechanic, as it is to make a good lawyer. We will never solve the problem of efficient vocational education until we are ready to take this position. (p. 406)

Somewhere in the life of every boy and girl there is a point before which they cannot go out to work with advantage to themselves and to the social order. Permitting children to go to work before that point may be a temporary advantage to their parents and to an industry, although this is doubtful, but the effect is to shorten the period of productivity and efficiency at the other end of the life of the wage earner. As a business proposition, if for no other reason, the state in discharging its duty to childhood and to the next generation needs to lengthen the period of infancy by prohibiting children from working before that point at which they can do it to their own physical, mental, moral, and industrial advantage. (p. 408)

Major Points

- Vocational education is defined as "The transmission of knowledge or skill under conditions where, on the one hand, the function of the instructor is recognized and, on the other, the need of the group for instruction is recognized" (p. 5).
- Training for work in a democratic society is essential.
- Democratic education evokes a citizen's interest in daily work.
- Education in a democracy should be more for full participation in the earnest work of the world as opposed to being for leisure.

- Vocations function as: (a) the basic vehicle for "successful" citizens, (b) channels of friendship and sociability, and (c) the muscle of cooperative social action and distinction.
- Life's values are enhanced by education through work.
- The way persons in society earn their living and the living they earn are interconnected.
- Vocational education is consistent with the accepted American social philosophy of education.
- There is a social need for vocational education as revealed by vocational inefficiencies.
- Vocational troubles are at the core of many social maladjustments.
- Students have different interests and talents. Forcing all through a curriculum made for commonality doesn't make sense.
- Vocational education conserves natural resources and human resources.
- Flux in skill and knowledge can be met by vocational education.
- Adaptation and readaptation of the worker is more systematic and economical via vocational education through the "pick up" method.
- Vocational education encourages invention or discovery.
- All jobs require some intelligence. The more technical a job, the more "job" intelligence is needed. Charles R. Richards' occupational intelligence formula is E = M + T + I, where: (E) efficiency depends upon possession of the necessary (M) manipulative skill, the possession of the necessary functioning (T) technical knowledge, and the possession of the (I) intelligence to apply the knowledge to the problem or job.
- Vocational education can develop (a) intrinsic intelligence (ability to use facts), (b) general intelligence (sound thinking procedures and transfer of learning), and (c) ideals and standards of performance (results of correct thinking).
- Vocational education improves morale and morale affects individual stability.
- Prosser's Theorems about vocational education:

    1. Vocational education will be efficient in proportion as the environment in which the learner is trained is a replica of the environment in which he must subsequently work.

    2. Effective vocational training can only be given where the training of jobs are carried on in the same way with the same

operations, the same tools and the same machines as in the occupation itself.

3. Vocational education will be effective in proportion as it trains the individual directly and specifically in the thinking habits and the manipulative habits required in the occupation itself.

4. Vocational education will be effective in proportion as it enables each individual to capitalize his interests, aptitudes and intrinsic intelligence to the highest possible degree.

5. Vocational education for any professional calling, trade, occupation or job can only be given to the selected group of individuals who need it, want it and are able to profit by it.

6. Vocational training will be effective in proportion as the specific training experiences for forming right habits of doing and thinking are repeated to the point that the habits developed are those of the finished skills necessary for gainful employment.

7. Vocational education will be effective in proportion as the instructor has had successful experience in the application of skills and knowledge to the operations and processes he undertakes to teach.

8. For every occupation there is a minimum of productive ability which an individual must possess in order to secure or retain employment in that occupation. If vocational education is not carried to that point with that individual, it is neither personally nor socially effective.

9. Vocational education must recognize conditions as they are and must train individuals to meet the demands of the "market" even though it may be true that more efficient ways of conducting the occupation may be known and that better working conditions are highly desirable.

10. The effective establishment of process habits in any learner will be secured in proportion as the training is given on actual jobs and not on exercises or pseudo jobs.

11. The only reliable source of content for specific training in an occupation is in the experiences of masters of that occupation.

12. For every occupation there is a body of content which is peculiar to that occupation and which practically has no functioning value in any other occupation.

13. Vocational education will render efficient social service in proportion as it meets the specific training needs of any group at the time they need it and in such a way that they can most effectively profit by the instruction.

14. Vocational education will be socially efficient in proportion as in its methods of instruction and in personal relations with learners. It takes into consideration the particular characteristics of any particular group which it serves.

15. The administration of vocational education will be efficient in proportion as it is elastic and fluid rather than rigid and standardized.

16. Which every reasonable effort should be made to reduce per capita cost, there is a minimum below which effective vocational education cannot be given, and if the course does not permit of this minimum of per capital cost, vocational education should not be attempted.

o Venn, G. (1970). Man, education, and manpower. Washington, DC: The American Association of School Administrators.

Selected Quotations

The question of quality revolves around the concept that education must prepare students for the kind of world in which they will be living as adults. If education does not do this, it will fail in its purpose, no matter how "well educated" our citizens become. No matter what level of educational attainment is reached. (p. 106)

For nearly 100 years the curriculum in our schools forced students into one of three programs: general, college preparatory, or vocational. In nearly eve y high school, most students have been urged to select the status .oad of "college prep", often despite the student's aptitudes, interests, or gifts. Those who did not drop out or were able to put up with mediocrity were assigned to the general curriculum. A few hardy souls, with parents who either didn't care about school for schooling's sake or were wiser than the teachers, chose the vocational program (which was often in such low esteem in the school that its quality was lower than any other program). (p. 107)

Most young people have little knowledge of the kinds of work that will be done when they become adults, the time when youngsters knew about work by casual acquaintance with it in the community is gone. (p. 109)

Everyone needs the opportunity to learn employability skills, such as responsibility, cooperation, taking instructions, being on time, and remaining on the job. More people lose jobs because of lack of these skills than for any other reason. (p. 110)

The fact that most students electing the college prep course, have no career plans or, worse, have made no study of career opportunities tends to make their school experience nonrelevant to their own goals. (p. 110)

There may be excellence or shoddiness in every line of human endeavor. We must work to honor excellence (indeed, to demand it) in every socially accepted human activity, however humble the activity, and to scorn shoddiness, however exalted the activity. An excellent plumber is infinitely more admirable than an incompetent philosopher. The society which scorns excellence in plumbing because plumbing is a humble activity and tolerates shoddiness in philosophy because it is an exalted activity will have neither good plumbing nor good philosophy. Neither its pipes nor its theories will hold water. (Gardner, 1968, p. 66 in Venn, 1970, p. 119)

Students do give up. After receiving a report card every six weeks for eight years which says they are at the bottom, they don't have to be too smart to conclude that it is socially more acceptable to be lazy than to be dumb. Someone has said that the report card itself really isn't so bad. What makes it hard is that the parents have to sign the report card, and by signing agree to the facts as stated. (p. 120)

There is no time at which to end education. There is no point in a persons life when he has accumulated all the knowledge he wants or can use. General recognition of this fact, together with a remarkable response by public and private organizations, has made adult education one of the fastest growing segments of American education. (p. 123)

If we are to reach a large part of our youth while they are still in school, we must relate learning with earning. If we are really to develop a manpower policy which will help to prepare youth for entry into the work force in a sensible and efficient manner, we must have a youth wage policy consistent with the concept of earning while learning. (p. 130)

The concept of work experience as learning only for the poor, the uneducated, and the unemployed is denegrating to those involved as well as supportive of a philosophy that work experience is not part of quality education. (p. 237)

Major Points

- Recommendations for school programs:

    1. Schooling should be established on a continuous year round basis with career oriented secondary curricula. Occupational exploration should begin in the elementary schools and gradually increase in sophistication and depth into the senior high school years.

    2. Vocational education must become a part of every level of education in order to assist the individual in making the transition from school to work.

3. Work experience should be required of all students regardless of their curriculum before graduation.

4. Work experience, required of all students, should be of three kinds: exploratory, in terms of learning about career area; employability skill training to learn attitudes and responsibilities; and skill acquisition in an occupational area.

5. The grading system needs to be redesigned to order not to discourage students from participating school.

6. There must be public review of plans and programs by independent advisory groups.

7. Schools must follow up the progress of students after leaving school. This includes an evaluation at the end of the program as well as future evaluations.

- Recommendations for special services program:

1. Local employment services run by the United States Employment Service should be required by federal legislation to assist school placement offices.

2. Services must be available for handicapped and disabled people who wish to be a part of any vocational program.

3. Over 40% percent of students who enter college do not graduate; there are few available services or individuals assigned the responsibility for assisting these students to make the transition from dropping out of college to work.

- Recommendations for economic changes:

1. Contractual arrangements between local education agencies and private businesses must be encouraged if it is the least expensive method of financing educational programs.

2. Congress must be prevailed upon to pass new legislation which will provide wage scales for students who are earning and learning.

3. Funds provided by the Department of Labor and Office of Education should be available to states which institute programs to reduce school drop-out levels.

4. There should be more federal assistance to students needing funds for continuing their education besides the students who are in college related programs.

5. In order to reach a large part of youth who are in school, learning with earning must be related.

- General concerns:

    1. One must question whether increasing investments for research will bring as much immediate change as investing in new program diversity.

    2. The needs and goals of individuals must be the basic foundation of education instead of the needs of the labor market.

    3. Since most people today will typically change jobs four or five times during their work lives, a long range policy of preparing individuals with simple, specific job skills no longer makes sense. It is becoming increasingly less productive to teach specific skills, even though specific entry skills are required in order to join the labor force.

    4. Continuing education has become necessary for everyone.

    5. Discrimination in today's society has become more a matter of education and skills than color or race.

o Evans, R. N. (1971). Foundations of vocational education. Columbus, OH: Charles F. Merrill Publishing Company.

Selected Quotations

The earliest and most widely accepted objective of vocational education is to provide a mechanism for meeting the manpower needs of the local community. (p. 9)

When an individual could expect to spend a lifetime in the same occupation and could expect to transmit to his children in essentially unchanged form the skills, knowledges, and attitudes which he had learned, the need for institutionalizing vocational education was much less than it is now, when few people can expect to engage in exactly the same productive activities for even a year. (p. 9-10)

It might be more accurate to say that times have changed so that unless a person has learned to work, he is not educated. (p. 15)

For vocational education to serve the manpower needs of society effectively, a system of long-term manpower forecasting is needed. (p. 21)

Not all educators see the meeting of manpower needs as a desirable objective of education. (p. 26)

Academic educators feel that vocational education decreases individual options. Perhaps this is true in some vocational courses

for some students. But for most vocational students, options are markedly increased by the availability of vocational education, and as more vocational educators accept the increasing of individual options as a basic objective, the proportion will increase. (p. 29)

The least understood of the three major objectives of vocational education is that which suggests that vocational education can and should consciously interpret general education to vocational students. (p. 51)

A better view sees vocational education content as that which helps a person to succeed occupationally, but is not needed by everyone. (p. 53)

Major Points

- Vocational education has three general objectives: to meet the manpower needs of society, to increase the options which are available to students, and to provide motivation for learning.
- Meeting the manpower needs of society was the principal objective of vocational education until the authorization of the Vocational Education Act of 1963. However, it is still crucial due to the increasing rate of technological change.
- Whether vocational education actually increases the options which are available to students is not generally agreed upon by educators, but through its employment-related effects, youth organizations, opportunities to work and earn wages (especially for females), options for individuals are increased. This is espcially true for those not having many opportunities before becoming vocational students.
- As motivation for learning, the role of vocational education is to interpret general education and its value to vocational students.
- General education is "education which is needed by every student and which is necessary for acquiring the ability to cope with one's environment in today's world" (p. 52).
- Vocational education, which is educational content that assists in the occupational success of an individual, is not needed by all, as is general education. It provides reasons, however, for learning basic general academic skills, and it contributes to a student's reasons for remaining in school.

o Wirth, A. (1972). Education in the technological society (pp.169-181). Scranton, NJ: Intext Educational Publishers.

o Wirth, A. (1974, Winter). Philosophical issues in the vocational-liberal studies controversy (1900-1917): John Dewey vs. the social efficiency philosophers. Studies in Philosophy and Education, 105-118.

Selected Quotations

Dewey was aware that science-technology had the power to debase life as well as the power to enrich it. In the late 1920's he wrote: "Science . . . has played its part in generating enslavement of men, women and children in factories in which they are animated machines to tend inanimate machines. It has maintained sordid slums, flurried and discontented careers, grinding poverty and luxurious wealth, brutal exploitation of nature and man in times of peace and high explosives and noxious gases in times of war. Man, a child in understanding himself, has placed in his hands physical tools of incalculable power. He plays with them like a child, and whether they work harm or good is largely a matter of accident." (Dewey, 1927, p. 176 in Wirth, 1972, p. 170)

With a haunting sense of the more ominous dangers still to come, Dewey added, "Humanity is not, as was once thought, the end for which all things were formed; it is but a slight and feeble thing, perhaps an episodic one, in the vast stretch of the universe. But for man, man is the center of interest and the measure of importance." (Dewey, 1927, p. 176 in Wirth, 1972, p. 176)

He was not, however, of a temperament to embrace existential despair. If man's own mind had created grave threats, it was also the source of his power to turn things around. "The more an organism learns . . . the more it has to learn in order to keep itself going; otherwise death and catastrophe." (Dewey, 1951, p. 523 in Wirth, 1972, p. 171)

Dewey felt that modern circumstances provided a chance for the American people to surmount old dualisms. If their tradition of democratic ideals were combined with the intellectual liberation of science, they might create a civilization which would give more people a chance to experience fullness as human beings. Unfortunately, American culture was thus far guilty of missing its opportunity. Dewey noted that it had not only perpetuated ancient dualisms but had created new ones. This was true of the nation's intellectual development where Americans rejected the facts of evolution; it was true of their social life, where an obsession with money led them to sell out the democratic dream for cheap materialism; it was true in education, where pressures were emerging to replace sterile rote-learning with pseudo-reforms of utilitarian trade training. (Wirth, 1972, p. 173)

Americans paid a heavy price for the unbalanced pursuit of monetary gain. Life had become marked by mechanization and the worship of technique as an end instead of means, by standardization and the concomitant homogeneity of thought and opinion instead of flexible, critical thinking; and by quantification, with consequent impersonality and "superficiality" of soul. When left unchecked, the new industrial system introduced both dramatic and subtle changes into the pattern of culture: the decline of family farms, the replacement of old-type artisans by assembly line machine tenders, the commercialization of college athletics, the sensationalism of the press, the manipulative thrust of advertising and public relations and the tensions and compulsive drives of businessmen. (Wirth, 1972, p. 176)

Snedden worked from an asusmptions about the nature of social life which he borrowed from his sociology teacher Franklin Giddings: "Society, like the material world . . . passes from homogeneity and indefiniteness of non-organization to the heterogeneity and definiteness of organization. The process of selection is based upon the differences growing out of the unequal conditions of both heredity and nurture to which man is born. Inequality--physical, mental, and moral--is an inevitable characteristic of the social population." (Wirth, 1974, p. 169)

Vocational education must establish habits: habits of correct thinking and of correct doing. Hence, its fundamental theory must be that of habit psychology. The new scientific psychology pioneered by Edward Thorndike, said Prosser, assumed that the mind is a habit-forming machine. There was an obvious fit between this psychological theory and vocational education when the latter was conceived as "essentially a matter of establishing certain habits through repetitive training both in thinking and doing." (Wirth, 1974, p. 174)

Dewey replied sharply that his differences with Snedden were profoundly social and political as well as educational: "The kind of vocational education in which I am interested in is not one which will 'adapt' workers to the existing industrial regime: I am not sufficiently in love with the regime for that. It seems to me that the business of all who would not be educational time-servers is to resist every move in this direction, and to strive for a kind of vocational education which will first alter the existing industrial system, and ultimately transform it." (Wirth, 1974, p. 176)

As we approach the last decades of the twentieth century a major challenge for all societies is to create life styles which will overcome the divorce of technology from humanistic concerns. If we make it, educational reform and social renewal will go on together. The emergence of educational experiments aimed at providing humanizing experiences with technology will be one kind of sign. The flourishing of bland, well-engineered school efforts to serve narrow technocratic efficiency needs will be a counterindication.

The inner conflict over which kind of society Americans want to create with the power of science and technology continues--only the stakes are getting higher. (Wirth, 1974, p. 181)

Major Points

- The philosophical rationale of Dewey's interest:

    1. The industrial education movement holds possibilities for educational reform but "narrow utilitarism" is a potential problem. Conditions under which vocational aspects are helpful or harmful need to be determined.

    2. Education without science and technology is inadequate, but the negative effects of science should be considered.

    3. Man's learning results in new challenges due to the changed conditions which have been created.

- Dewey's battle against dualism:

    1. Separation/dualism--or lack of wholeness that may be typified by the Platonic tradition--limits the potential of a democratic society. Instead of moving beyond dualism, American culture perpetuated it through its economic, social and educational system.

    2. The total pattern of culture is a more influential educator than the school system alone.

- Dewey's economic critique:

    1. The ways of providing for life's necessities pervades other aspects of life because of the "mental patterns" that are developed.

    2. The inconsistency between the materialism of the marketplace and the religious/spiritual beliefs in the United States poses a moral problem. Pursuing monetary gain has resulted in a new dualism and power structure.

    3. Three alternatives to the new dualism are possible: continue the present system, adopt a system of state determinism, or plan a "new society" in accord with the perceived spirit of American life.

    4. The quality of schooling reflects decisions about the organization of American life.

- Views of social efficiency philosophers (Snedden and Prosser):

    1. The task of education is to aid the economy in functioning as efficiently as possible by making each person a more

"fit" member of society. The kind of citizen wanted needs to be defined, and training designed that has the capacity to produce this kind of person.

2. Human beings are viewed as being of ability levels that parallel hierarchial work requirements.

3. Education should be "practical" in the sense of being designed for specific employment. "Masters" of occupations are more appropriate resources and teachers than traditional educators for this type of preparation.

4. The fundamental theory of vocational education should be the "habit" psychology of Thorndike. Instruction should simulate the work environment. Administrative organization should be separate from that of general education so that manpower training could be accomplished.

- Views of Dewey:

1. The task of education is to reconcile or overcome the contradictions of society by developing strategies to bring "qualities of democratic ethos into institutions being transformed by science, technology and corporatism." Youth should be helped to understand how human experience is transformed by these forces, so that they could be able to evaluate institutions.

2. Human beings are viewed as capable of being a part of a planning society.

3. Education should be "practical" in the sense of integrating the intellectual and "doing" aspects of learning through authentic involvement.

o Warmbrod, J. R. (1974). The liberalization of vocational education. Paper presented at the American Vocational Association Convention, New Orleans. Danville, IL: Interstate.

Selected Quotations

They conclude that narrow and specific vocational training appears to have no useful role at the high school level. (p. 2)

I maintain that this dichotomization of the purposes and content of secondary education into vocational and academic segments is precisely the culprit that can help explain why the promise envisioned for vocational education has been slow to materialize. (p. 3-4)

We must recognize that theory and knowledge are inseparable from practice and experience. (p. 5)

We must not equate vocational education with occupational predestination to directed rather than directive occupations. (p. 5)

Broaden the purpose of vocational education in secondary schools from that of a narrow "trade-school orientation" that equates vocational education with skill training to a more liberal concept that recognizes the contribution vocational education can and does make to a variety of developmental tasks of adolescents. . . . skills, knowledge, and attitudes which enhance or impede entry to an progress in the world of work are not limited to those acquired in courses with the label "vocational." (p. 6)

Major Points

- Expanding the purpose of vocational education can bridge the gap between vocational and general education. Occupational preparation is not only due to the vocational education curriculum.
- A decade after the 1963 vocational education legislation, the value of vocational education in preparation of students for work was still questionable due to fact that only vocational education has that responsibility.
- The separation of vocational education from general education partially explains vocational education's lack of success.
- The broader purposes of vocational education should include: (a) occupational orientation and exploration, (b) career planning and decision making, (c) preparation for advanced study, (d) development of general employment skills, and (e) specific (traditional) employment skills.
- Expanding the purpose is not an abdication of vocational education's prior purpose. It is only to remove the barriers between vocational education and general education. A purpose of public education is to teach students about and prepare them for the world of work. Career development goals are part of the broadening of the purpose of vocational education. Skills necessary for occupational success include "general education" skills.

o Grubb, W. N., & Lazerson, N. (1975, November). Rally 'round the workplace: Continuities and fallacies in career education. Harvard Educational Review, 451-474.

Selected Quotations

Career educators believe that "students will enjoy career education because of its realism, educators will advocate (it) because of its relevance, communities and school patrons will approve (it) because of its congruence with societal needs, and business and employers

will aggressively support (it) because of its practicality and efficiency." (Marland, 1974, p. 185 in Grubb and Lazerson, p. 455)

The vocational education movement gathered support from businessmen, educators, social reformers, and labor. Its advocates argued that vocational education would produce a skilled labor force, contribute to further economic development, elevate manual labor to a higher status, and restore relevance to the schools. By teaching industry, discipline, submission to authority, respect for property rights, and acceptance of one's place in the industrial order, vocational education would combat social decay, industrial unrest, and alienation from work. Pupils would cease to drop out of school because vocational training would give them the skills they would need as adults in the labor market. Moreover, poverty would be eradicated. Finally vocational education would provide a greater recognition of individual and group differences by reshaping the curriculum and pedagogy to fit the socioeconomic background, abilities, aspirations, and the "probable future of the child." Viewed in a broader social context, the introduction of vocationalism into the school was part of a movement by the educational system to embrace the goals, structure, and methods of corporate capitalism. (p. 458)

The assumptions of career educators about the nature of work and the demand for labor are largely a myth. The world they posit, in which career education can make all work satisfying and all training useful, is a world we would no doubt prefer to the one we inhabit. But in constructing this Utopia, career education simply reflects the more general dilemma of schooling. Capitalism is an economic system in which capital is central. As part of a drive for profits and the accummulation of capital, managers in an economic system like ours endlessly divide, simplify, and eliminate jobs. This results in an increase in unemployment and a constant status of underemployment for most workers. The economic system values capital resources at the expense of human resources. Yet the schooling system is charged with the development of human resources, and thus its central purpose is in sad contradiction to that of the economic system it serves. (p. 472)

Major Points

- Career education (and vocational education) are rationalized to the public through the use of false assumptions.
- Educational requirements of jobs are artifically inflated.
- There is substantial dissatisfaction with work (this feeling is supressed during periods of high unemployment because workers feel it is just "good" to have a job).
- Vocational education is inefficient in reducing the gap between rich and poor, in enhancing school learning, in solving social and economic problems

and in making physical work more satisfying.

- The assumed moral benefits of work do not fit the real nature of most jobs nor the logic of corporate captialism.
- Most jobs have very short career ladders--there is little likelihood that vocational education will affect upward mobility.
- It is the economic structure that is largely at fault for unemployment, underemployment and work dissatisfaction--not its victim.
- Career education (vocational education) reduces expectations, limits aspirations and increases commitment to the existing social structure.
- Career education (vocational education) accepts the present economic system as just and thereby, "seeks to make people satisfied with their roles in a society that distributes social goods inequitably. It stresses the importance of increasing productivity without asking what is being produced and toward what ends. It claims that American society does not need all the intellectual and developed capacities of its citizens in the work force without asking whether such a waste of capabilities makes sense." (p. 474)

o Silberman, H. F. (1980, September). Non-economic returns of vocational education. Vocational Education, 43-45.

Selected Quotations

> In this viewpoint the primary purpose of vocational education is to promote full human development through exposure of the learner to activities that are intrinsically meaningful and absorbing. (p. 43)
>
> The purpose of the work is to further the education of the student, the work is subordinate to the educational process. This is work for education. (p. 43)
>
> More often than not people fail to be admitted into the primary labor market, are fired or fail to be promoted on their jobs because they lack those personal qualities rather than technical deficiencies. (p. 44)
>
> To evaluate intrinsic results one must use measures of personal growth rather than employment statistics or salary records. (p. 44)

Major Points

- Vocational education has benefits other than extrinsic skills training. These personal qualities "may be as vital to the attainment of extrinsic

economic benefits as the acquisition of technical skills" (p. 44).

- The intrinsic purposes of vocational education promote full human development through exposure of learner to particularly meaningful activities utilizing work experience as part of an educational process to enrich the spirit.
- The criterion of success of intrinsic activities is personal growth, evidenced by dedication to task and level of voluntary participation.
- Evaluation of vocational education designed for intrinsic effects should be done through comparison with academic students, assessment of human development, and student's personal satisfaction.
- Human development dimensions include personal competence, aesthetic expression, integrity, cooperativeness, and altruism.
- To achieve intrinsic results, vocational education needs to move outside of the school building.

o Violas, P. C. (1981, Spring). Reflections on theories of human capital, skill training and vocational education. Educational Theory, 31(2), 137-151.

Selected Quotations

> All students should have knowledge about and skills relative to such things as mechanics, electricity, hand tools, various materials, nutrition and cooking, design and decorating. (p. 150)
>
> The typical pattern of development in this century has been the increasing specialization of tasks, segmentation of the work process and close integration of those segmented aspects of each individual work station into the total production or business process. (p. 145)
>
> In retrospect it seems that we made a wrong turn in our educational history when, in accordance with E.L. Thorndike's arguments against generalized transfer of training, we moved to train specialized skills rather than general intelligence. A careful examination of Drucker's and Weisbrod's modern formulation of human capital theory indicates that their conceptions are actually more closely allied to the Owen and Mann position than the way modern vocationalists have applied the theory. (p. 149)
>
> It would seem that human capital theories do not, as has been long believed, adequately explain or justify vocational training programs which emphasize specific cognitive and manipulation skills development. Further, it is also unlikely that these theories support affective skills training vocational programs. (p. 149)

> If it is the case, as the preponderance of evidence suggests, that most of the work places for which vocational students are being prepared do not require significant amounts of skill, understanding of the technology involved in the production process, nor innovation on the part of the worker, then specific cognitive and manual skills training seems, at best, superfluous. Especially if requisite skills can be quickly acquired on the job, then it seems clear that the "investment" both by the state and the student in curricula to develop such skills may be wasted. (p. 148)
>
> Most of the available evidence leads to the conclusion that for life in general, adequate performance of citizenship responsibilities and labor market success, individuals with well-developed intellectual skills and critical abilities are advantaged. (p. 150)
>
> It is also clear that all students, as prospective citizens and workers, should have knowledge of the world of work. But the emphasis should be much different than at present. Presently our concern is to develop the affective skills which wed the worker to the existing nature of work and even to convince them that "all" work has dignity. If public schools are to serve the students then a more realistic and honest approach is needed. The understanding of the world of work which the public schools present to students should show that world as it actually exists. Moreover, the schools should arm students against those aspects of the world of work which lessen the human dignity of workers. This, of course, would require more insight, courage and honesty than we have demonstrated in the past. (p. 151)

Major Points

- Vocational education is dominated by a romantic, 19th century artisan conception of the workplace.
- Massive change has transformed the nature of work in America and both blue collar and white collar workers have experienced significant changes in their job structures.
- Vocational education overemphasizes sophisticated manual skills.
- Most work stations are characterized by a routinized pattern of standardized actions with skill requirements declining for most workers.
- The U.S. economy has a shortage of jobs not skills.
- The secondary school curriculum is not a dominant influence in the unemployment of men and women after they leave school.
- Human capital theory supports broad academic training for workers.
- Vocational education should emphasize avocational skills and not vocational skills, (i.e., general interests as opposed to specific skills training).

- Theoretical and practical aspects of education should be integrated and available to all students.
- Affective education and development should not merely aim to "adapt" the student to the world of work without adequately allowing the student to understand those areas of work which tend to lessen human dignity.

o Swanson, G. I. (1982). Vocational education patterns in the United States. In H. F. Silberman (Ed.), Education and work, eighty-first yearbook of the national society for the study of education (pp. 15-48). Chicago: The University of Chicago Press.

Selected Quotations

> Vocational education has not developed as a system but rather as a collection of enterprises identified to a greater or lesser degree with every type of education and most types of institutions. Yet the most distinguishable characteristic of various forms of occupational preparation is not the type of education chosen, but rather its duration or length. (p. 22)
>
> For those who enter the occupations there is a defacto classification that is much closer to reality. It is, simply, long education and short education. Long education requires a much higher level of public expenditure per student; it allows the acquisition of more employability skills; and it leads to the status and rewards of a higher position in the occupational structure. Short education consumes a lower level of public expenditure per student; it has a disproportionate number of the poor and otherwise disadvantaged; and it leads to the status and rewards associated with the lower positions in the occupational structure . . . much employment-related education and training, including vocational education, is conventionally designed and planned as short education. (p. 22-23)
>
> If racial segregation in the public schools of the United States is contrary to constitutional rights, an absurd notion only a generation ago, how long will it be before the amendments covering life, liberty, and property are invoked to ensure guarantees against the segregating influences of education or training programs designed for some to be short, less expensive, and in many forms as acts of charity? . . . In its design features, vocational education and/or training remains unfinished as a blueprint for the hopes of many individuals or the promises of the great American documents. (p. 23-24)
>
> Vocational education and training appears to have a resid claim on, or assignment to, marginality with respect to both students and resources.
>
> No educational endeavor matches or exceeds vocational education in its problems of definitions . . . most uses of the term imply a

> diverse set of programs serving a wide range of students at different intensities and for different purposes. (p. 33)
>
> It seems incredulous that the search for a definition of vocational education is still underway and that there is such diversity of perceptions about what it is or should be. (p. 36)
>
> Preparing people to do society's work is . . . the process of allocating, indeed rationing, the statuses, rewards, and awards that members of society accord to each other. (p. 43)
>
> The pattern of vocational education in the United States should be viewed as many different types of journeys taken to multiple destinations . . . the patterns are . . . unfinished and incomplete. (p. 47)

Major Points

- Vocational education is very diverse in the way it is delivered. However, it is generally a part of "short" education which can serve to segregate students and their future opportunities from those who obtain a "longer" education.
- The organizational structure for vocational education is a patchwork of institutions and programs.
- The several bases that might be used to define vocational education include: (a) federal statutes, (b) client perceptions, (c) programs included, and (d) purpose.
- The purposes of vocational education include: "A widening latitude for job choice, initial and/or subsequent placement, opportunity for occupational mobility, movement upward on occupational ladders, and increased productivity as an employee or employer" (p. 55).
- Areas of vocational education with strength include: (a) acclaim won in local communities and (b) remaining close to industry, commerce and agriculture. Areas needing strengthening include: (a) instructor or teacher preparation, (b) intellectual leadership, and (c) attention to scientific literacy and technological competence.
- The major policy debates particularly important to vocational education include: (a) question of control of vocational education by federal versus state versus local government, (b) limiting vocational education to the post secondary level versus extending it into the secondary level, and (c) closing versus maintaining the gap between liberal arts/humanities and vocational education.

Implications for Purpose and Process of Secondary Vocational Education

After examining the major points made by each of the above cited authors as well as additional related readings, discussion of the study group focused on what these authors: (a) advocated as the purpose(s) of (secondary) vocational education, (b) identified as the rationale for holding a particular purpose, (c) suggested (if anything) as indicators that this purpose is being achieved, and (d) thought were implications of the purpose advocated for secondary vocational education today and in the future.

Starting with the first focus, characteristics of the purposes advocated appeared to be as follows:

1. Provide skills which are transferable to the world of work.
2. Include both concern for individual (e.g., vocational development) and concern for society as a whole (e.g., needs of economy).
3. Provide job training ("learning to work" skills).
4. Socialize students who are not going on to further schooling. (Two different positions were presented: (a) socialize in an acceptable way as judged from a societal perspective, and (b) socialize in a way which empowered students to act on their own behalf as to what they thought best.)
5. Meet labor market (occupational) requirements of society.
6. Increase life (work) options available to each student.
7. Provide motivation for all types of learning by making learning relevant.
8. Bring together humanistic and technological concerns in a way that stimulates students to solve problems and evaluate what is occurring in their lives and the broader society.
9. Enhance productive powers of individual (in contrast to liberal or general education which concerns improving utilization or consumption powers).
10. Develop avocational skills.
11. Develop understanding of how some aspects of the workplace lessen human dignity so that action may be taken to change these aspects.

12. Provide relevant learning experience for all students.

13. Develop students' ability to (a) critique existing social order, especially in work settings, and (b) change the order when necessary to improve the quality of life.

14. Include participation for only those jobs which provide satisfaction and equal access to the benefits of society.

15. Prepare workers who could improve the quality of life.

16. Include preparation for "vocations" only--an activity located in a broader cultural context.

17. Conserve human and natural resources by emphasizing the socially efficient use of resources (i.e., talent) for the functions which maintain society--each person needs to be made to "fit into" society.

18. Assist students to increase and recognize aspirations and expectations (career guidance).

After developing the list of advocated characteristics and purposes, an attempt was made to cluster the purposes since several seemed to partially overlap with others. The resulting cluster headings and the number of specific purpose from the above list included in the cluster were as follows:

1. Critical socialization (proactive) (4, 11, 13, 13, 15, 16).
2. Maintaining social order (4, 17).
3. Skills for work (1, 3, 5, 6, 9).
4. Personal development (life skills) (2, 4, 7, 18).
5. Career development increasing options (6, 7, 17, 18).
6. Bridging aspects of life (making relevant) (2, 6, 8, 10).
7. Efficiency (5, 17).
8. Equity (12).

Further discussion of these cluster headings resulted in the perspective that several of the purpose statements are in "tension" with one another--they are representative opposing views which need to be reconciled or on which a position must be taken in order to develop a statement of purpose for secondary vocational education.

These tensions or dualisms are as follows:

1. Critical socialization versus maintaining the social order.
2. General education versus specific education.

3. Concern for individual versus concern for society.

4. Technological versus humanistic.

5. Education versus training.

6. Efficiency versus equity.

During the discussion from which these advocated purposes, clusters of purposes, and tensions evolved, several additional general observations were made. First, dualisms should be avoided if possible. Experience has shown that, in most instances, to pursue one direction at the expense of the other brings more serious problems. For example, if all education were general, what has been learned and produced by specialization would be lost. Further, if the purpose of vocational education is only to be critical and strive for reform, that which is already done well and ethically would be lost. Somehow these dualisms or tensions should be resolved. Some ways suggested were to: (a) treat them as a continuum and strive for some appropriate balance in direction, (b) treat them as independent dimensions and strive to accomplish focus on both ends at the same time (e.g., teach both general and specific skills), and (c) to "lift" discussion to higher order questions (e.g., to ask, "what does it mean to be educated?"). However, these tensions will always be encountered because of the very way that the overriding questions have been stated: What ought be the purpose of secondary vocational education? It was decided at this point to partially offset the dilemma by rephrasing the latter question to be: "What ought be the purpose of vocational education in the secondary school?" With this question, a slightly different "twist" is given to what is being sought--vocational education is to be thought of as a part of what goes on in the secondary school and not a separate entity.

Second, it may be very appropriate for vocational education in the secondary school to have a multiplicity of purposes and not be limited to a few unique or uniform aspects. Perhaps a multiplicity of purposes, although adding to the complexity of how to plan, teach, and evaluate vocational education, better fits what needs to be and is actually done in most secondary level programs. This multiplicity of purpose is surely represented by the tensions found in historic perspectives of the purpose of vocational education.

Third, the meaning of terms will have to be clarified in any purpose statement concerning vocational education in the secondary school. It was evident that even among the small study group members there was a diversity of

meaning attached to such terms a transferability, general skills, personal development, equitable and critical socialization. For example, the concept of transferability operates on many levels--learning may be of use in a variety of life roles (e.g., work, family, leisure), in a variety of jobs within a work role, and within a variety of duties within a job. If people are at all able to really understand each other and communicate to others, a prerequisite will have to be clear meaning of terms. Any purpose statement should be accompanied by a glossary of key words. In this regard, each of the tensions might be further clarified by trying to write a purpose statement for vocational education which represented each side of the tension.

Fourth, the tensions which were evident in past perspectives of vocational education are still very much at issue today. For example, the tensions concerning technological versus humanistic, and efficiency versus equity emphases in the curriculum of vocational education are as urgent today as they were in the past. However, it may be that the position taken in response to these tensions in the practice of vocational education has varied substantially over time --and perhaps appropriately so. It seems that identification and attention to the tensions discerned in past perspectives represents a rather timeless means of summarizing the relevant issues in addressing the purpose of vocational education. Further, because it is not temporally specific, the advice and thinking of past leaders as well as lessons of experience can more easily be used to enlighten thinking about present and future positions on the purpose of vocational education in the secondary school.

Fifth, the advocated purposes, clusters of purposes, and tensions may not all be at the same level of generality and importance. For example, the tension between a technological versus humanistic emphasis seems at a higher level of abstraction than training versus education. There are also some parallels in the dimensions of the tensions--there is a commonality in general education, humanistic education, and equity versus specific education, technological training, and efficiency. There may also be a difference in the order of importance of the tensions when relevance to developing a purpose statement for vocational education is considered. For example, is the tension of critical socialization versus maintaining the social order of equal importance to general versus specific education?

Sixth, there may also be an order to addressing the tensions, when

developing a statement of purpose for vocational education. For example, the tension of efficiency versus equity seems most appropriate to supply last, after the other tensions have been resolved. Efficiency refers to accomplishing whatever is to be done in a way that uses the least resources (e.g., time, talent, materials). It does not address what is to be done, only the standards for how to go about it. Equity, in turn, is a distributional concept; it addresses the standards for distributing or sharing what is to be done in most appplications, and it includes implications for how it is to be done. But, as with efficiency, equity has little to say about the nature of what is to be done. Equity considerations provoke questions about whether or not the ends and means for each student ought be the same (e.g., all be prepared for entry level work at high school graduation and all take vocational education courses, respectively). Or can ends and means be different and still be equitable?

Seventh, in many ways the tensions are valuable in raising to consciousness the interests served by vocational education and, thereby, those interests which need to be considered in developing a purpose statement for vocational education in the secondary school. For example, the tension between concern for individual versus concern for society makes explicit the need to consider vocational education from the perspective of what is best for individual students and also from the perspective of the broader society and its various institutions (e.g., business and industrial firms, schools, families, government). Also, the tension between critical socialization versus maintaining the social order brings to mind the interests of the present versus future generations. Within the arbitration of these interests lies many of the ethical and political questions germane to the purpose of vocational education.

Eighth, a lingering question in reviewing the various writers included in this section deals with separation of the ideal versus the expedient. Were the authors describing what ideally they viewed as the purpose of vocational education or was it more what they thought was politically and administratively feasible at the time? For example, Prosser's view about the need for strong separation of schools of vocational education and other schools--was this what he thought ideal, or was his position a compromise needed in order to obtain political support and, more important, to insure that vocational education as an idea had a real chance of ever being implemented? If it was the latter, what care must be taken in drawing implications from his perspectives for today and

the future?

Ninth, how arbitrary are the categories of tensions that have been identified? Are there additional categories that have been missed? On a more encompassing level, are there quite different ways to categorize existing tensions? What different implications could be cast? It is assumed that all of the prior questions might be answered in the affirmative. The quest here was for a way to summarize the perspectives of past writers in vocational education who were recognized particularily for their views on purpose. For this reason, the tensions described above seemed an appropriate and insightful way to "pull together" the discussion. However, the arbitrariness of this decision and the lack of closure it entailed caused the study group to remain open to other ways of viewing this work.

Summary

With the above comments in mind, the perspectives of others in vocational education who have addressed the question of purpose in the past do have implications for developing a purpose statement for vocational education of worth today and in the future. What was learned was that a statement of this kind would need to address the following tensions faced by those who practice vocational education:

1. Critical socialization versus maintaining the social order.
2. Individual versus society as a whole.
3. General education versus specific education.
4. Technological versus humanistic.
5. Education versus training.
6. Efficiency versus equity.

However, it must always be remembered that these dicotomies are artificial--they have been constructed for the purpose of raising to consciousness the issues "mulled about" by those who addressed the purpose of vocational education in the past. Hopefully, raising these tensions or dualisms will not prevent their surmounting in a purpose statement for vocational education--anything less would be a tragic and antithetical consequence of this work. It was because of this reason (with integration in mind), that the study group deliberately shifted the focus of the study to the purpose of vocational education in the

secondary school rather than purpose of secondary vocational education as was the initial title.

Following this logic, it seemed most appropriate to next look at the purpose of vocational education in the broader context of the purpose of education. But, before this venture, because many of the specific fields making up vocational education have (a) a longer history than vocational education (at least as shaped by federal legislation) and (b) perhaps broader purposes than vocational education (again as conceived by the federal legislative process), it was decided to first look in detail at several of the specific fields making up vocational education.

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Part IV

Implications of 20th Century Perspectives on the Purpose of Specific Fields Within Vocational Education

Historically, vocational education as an area of professional practice in education came into being most explicitly with the action of federal legislation --the Smith-Hughes Act of 1917 followed by subsequent legislation. Federal legislation initially brought agriculture, home economics, and industrial education under the specific umbrella or label of vocational education. Other areas such as marketing and business education were brought in later. What is often neglected in referring to vocational education is that these specific fields had, in some cases, a long and separate history of development as important parts of education before (and after) the "vocational" rubric was introduced. In order to better understand vocational education's purpose which in reality exists largely as instruction in each of these several specific fields, it was thought necessary to briefly examine the purpose of each field, starting before federal vocational education legislation and continuing on up to the present.

The strategy taken was to review the work of leaders in each specific field, usually by looking back to those who provided leadership in initiating the field and also at current perceptions of purpose. The fields examined in this way were agriculture, business, home economics, industrial and marketing education. What follows are selected quotations and major points made by selected leaders in each of these fields.

Selected Quotations and Major Points: Agricultural Education

o True, A. C. (1929). A history of agricultural education in the United States: 1785-1925 (USDA Miscellaneous Publication No. 36). Washington, DC: U.S. Government Printing Office.

Selected Quotations

> When the college land grant act of 1862 was passed agriculture had almost entirely disappeared from secondary schools . . . It was soon apparent that of the masses of farm children, only a small number would go to these colleges at all . . . They would have to be supplemented by lower schools in which agriculture was taught if ever

the real need for agricultural education was to be supplied in any large measure. (p. 322)

The Director of the Office of Experiment Stations (United States Department of Agriculture, 1877) said . . . What is needed is courses in agriculture in numerous schools to which farmers' children resort, near their home, to "finish" their education after th ey are through with the common schools. (p. 329)

Around 1905 . . . there was so little in the school curricula to aid children in their life's work that great numbers of them, and especially the boys, were leaving school at so early an age that the schools were making little impression on their minds or characters. (p. 3)

Major Points

- Between approximately 1862 and 1900, the first American agricultural schools were established; they emphasized basics as a background and "scientific agriculture" was taught which also included work on a farm.
- After 1900, the movement to include agriculture in secondary schools developed rapidly with support from groups such as the Association of Agricultural colleges and Experiment Stations, state legislatures, and the United States Bureau of Education.
- For the school year 1915-16 there were 3,181 secondary programs of agricultural education of which 421 were state supervised.

o Commission on the Reorganization of Secondary Education. (1920). Agriculture in secondary schools (Department of Interior, Bureau of Education, Bulletin No. 35). Washington, DC: U.S. Government Printing Office.

Selected Quotations

Vocational agricultural education is that education which: (1) gives the skills and knowledge necessary to the control of plant and animal production to the end of economic profit, and (2) is so articulated with other education as to promote the most desirable farm community life. It must be borne in mind that agriculture is more than a vocation; it is a mode of life. (p.8)

Agricultural curriculums in secondary schools . . . should be rich in social and civic content and at the same time contribute specifically to the vocational efficiency of many students. The future of agriculture is dependent not only upon increased knowledge of production but also upon the development of a more satisfying type of rural life. (p. 6)

Major Points

- Agriculture in secondary schools comprises the elemental and basic portions of the science and art of agriculture found in the best farm practice, including operation of a farm as a business enterprise and as a place of abode.
- Schools are justified in devoting some time to the nonvocational study of agriculture because it is a fundamental industry.

o Stewart, R. M., & Getman, A. K. (1927). Teaching agricultural vocations, a manual for teachers in preparation and in service. New York: John Wiley & Sons.

Selected Quotations

> . . . the aim of vocational education in a farming occupation is to train persons for efficient, profitable, and satisfying employment in a particular type or types of farming or in an occupation related to agriculture. (p. 31)
>
> The psychological approach is most effective. (p. 37)

Major Points

- Aims are influenced by a number of factors, i.e., physical and economic factors.
- Five functions must be performed to realize the aim of agriculture: analyze the jobs, select most appropriate content, involve the students, demonstrate how this all fits into our society, and help students use this information to lead a better more well-rounded life.
- Specific occupations provide the best general training.

o Schmidt, G. A. (1928). Efficiency in vocational education in agriculture. New York: The Century Company.

Selected Quotations

> Vocational education in agriculture is any training of less than college grade; the specific purpose of which is to equip persons over fourteen years of age for the effective pursuit of farming. The purpose of such training is (1) to prepare those of school age for the farming occupations they propose to follow; and (2) to improve those who are already engaged in farming so that they will become more efficient in the occupation. (p. 26)

Major Points

- Vocational education is a part of the overall purposes of education.
- This type of training is needed to meet the demands of the agriculture industry.
- Vocational education in agriculture is not a movement to keep all farm boys on farms.
- Vocational training courses in agriculture are not dumping grounds for misfits; neither are they forms of general education. (p. 66)
- Vocational training is needed in order to accomplish the following purposes:
    1. Conserve and develop natural resources.
    2. Prevent waste of human labor.
    3. Provide a supplement to apprenticeship.
    4. Increase wage earning power.
    5. Meet increasing demand for trained workmen.
    6. Offset the increased cost of living.
    7. Check industrial and social unrest.
    8. Promote higher standards of living.
- Prosser's theorems apply to vocational agriculture as well as to vocational education in general.

o Federal Board for Vocational Education. (1931). Training objectives in vocational education in agriculture (Bulletin No. 153). Washington DC: U.S. Government Printing Office.

Major Points

- Vocational education in agriculture/addressed the following training objectives:
    1. Produce agricultural products effectively.
    2. Market agricultural products economically.
    3. Select and purchase suitable farm equipment and supplies.
    4. Cooperate intelligently in economic activities.
    5. Manage the farm business effectively.
    6. Establish and maintain a satisfactory farm home.
    7. Perform appropriate economical farm-mechanics activities.
    8. Participate in worthy rural civic and social activities.

9. Use scientific knowledge and procedure in a farming occupation (as contrasted with technical knowledge).
10. Exercise constructive leadership and recognize and follow worthy leadership.
11. Grow vocationally.
12. Become established successfully in farming.

o Cook, G. C. (1938). Handbook on teaching vocational agriculture (4th ed.). Danville, IL: Interstate.

Selected Quotations

> It is not the purpose of vocational agriculture to set up a curriculum entirely separate and apart from the other high school curricula. Its chief function is to fill a needed gap in the educational system and it should be considered as one of the permanent phases of work in the high school program. (p.8)

Major Points

- Vocational agriculture's most important objective is for the student to become established successfully in farming.
- Vocational agriculture stresses abilities which are classified as knowledge, skills, and attitudes.
- The basic aims of education contained in the seven cardinal principles (health, command of fundamental processes, worthy home membership, vocations, citizenship, worthy use of leisure time, and ethical character) are addressed in vocational education.
- Cook quoted B. C. Lawson ("Are We Thinking Straight in Regard to Objectives?" March, 1929) who believed that the final and true objectives of instruction in vocational agriculture should be changes in controls of conduct on the part of human beings. Lawson feared a degeneration of education into a foreman-laborer relationship where activities are governed by the aim of producing approved observable products while student learning becomes incidental and perhaps accidental. He questioned whether being in conformity with "seeing is believing" is evidence of validity.

o U.S. Office of Education. (1980). Educational objectives in vocational agriculture (Vocational Division Monograph No. 21). Washington, DC: U.S. Government Printing Office. (Note: this committee was appointed by the U.S.O.E. with AVA approval to revise the 1931 objectives.)

Selected Quotations

> To train present and prospective farmers for proficiency in farming is the aim of vocational education in agriculture. (p. 2)
>
> The major objectives of vocational education in agriculture are to develop effective ability to:
>
> 1. Make a beginning and advance in farming
> 2. Produce farm commodities efficiently
> 3. Market farm products advantageously
> 4. Conserve soil and other natural resources
> 5. Manage a farm business
> 6. Maintain a favorable environment (p. 3)

Major Points

- The objectives reflected the importance of federal legislation in of the thinking of the committee. Two major points were made in the introduction of the objectives: (a) The National Vocational Education Act stated that the controlling purpose of such education shall be to fit for useful employment, and (b) the broader human development aims are the responsibility of all groups of educators.

o Hamlin, H. M. (1949). Agricultural education in community schools. Danville, Ill.: The Interstate Printers and Publishers.

Selected Quotations

> The first consideration with respect to objectives is that agriculture education is a branch of education. It is not a branch of agriculture . . . (p. 62)
>
> It is in the minds of men that agriculture improvement or deterioration begins and it is in the minds of men that the bases for a sound agriculture and country life must be erected. (p. 62)
>
> It (agricultural education) can be expected to contribute to the general objectives of the school as well as the special objectives of its own field. (p. 64)

Major Points

- Hamlin believed that:
    1. The suggestive lists of objectives for agricultural education were limited in value because only the objectives of vocational agriculture were proposed.
    2. The local unit of education is the primary unit. All agricultural education in the public secondary schools is conducted in and for communities. It should not be subverted by national or state directives.
- The 1940's objectives for vocational agriculture were inadequate. The interpretation of environment was too narrow. It was assumed in the Vocational Education Acts that students in vocational agriculture had made their final occupational choices. Other objectives might be the ability to decide for or against a career in agriculture and the ability to choose an agricultural occupation.

o U.S. Office of Education. (1965). Objectives for vocational and technical education in agriculture (Bulletin No. 4). Washington, DC: U.S. Government Printing Office.

Major Points

- Objectives for vocational agriculture which were delineated:
    1. To develop agricultural competencies needed by individuals preparing to engage in production agriculture.
    2. To develop agricultural competencies needed by individuals engaged in production agriculture.
    3. To develop an understanding and appreciation of career opportunities in agriculture and of the preparation needed to enter and progress in agricultural occupations.
    4. To develop the ability to secure satisfactory placement and to advance in an agricultural occupation through a program of continuing education.
    5. To aid in developing those abilities in human relations required for success in agricultural occupations.
    6. To aid in developing the abilities needed to exercise and follow effective leadership in fulfilling occupational, social, and civic responsibilities.

o McCracken, J. D., & Newcomb, L. H. (1981). A future for agricultural education in public schools (Position paper prepared for Agriculture Futuring Committee, Bureau of Occupational Program Development, New York Department of Education). Albany, NY: University of the State of New York.

Selected Quotations

> Agricultural education at the secondary level must be designed to develop the employability skills which contribute to success in any occupation. Such skills include work habits, interests, attitudes, and character attributes desired by employers and fellow workers. The program must also provide for the development of agricultural competencies to meet the needs of students with specific occupational objectives. (p. 10)
>
> Agricultural educators must continue the tradition of teaching students a process by which they can continue to learn, realizing specific content will soon be outdated. (p. 11)

Major Points

- Agriculture will be more specialized with emphasis on technology.
- Industries allied with agriculture will also continue to grow.
- Education will be stressing common academic abilities--basic skills.
- With diminishing federal funding, the quality of teachers will decrease because quality people will not be attracted to the salaries offered.
- Post-secondary programs should be highly specialized.

Selected Quotations and Major Points: Business Education

o Nanassy, L. G., Malsbary, D. R., & Tonne, H. A. (1977). Principles and trends in business education. Indianapolis, IN: Bobbs-Merrill Educational Publishing.

Selected Quotations

> To be economically literate and informed citizens, wise consumers, and competent workers, each person must have some understanding of the world of business and how it functions. Everyone must possess at least minimum knowledge, skills, and understanding with which to make contributions to the world of work. Business education plays a very important part in providing students at all ages with the ability to function effectively in our business world. (p. 1)

Today, we speak broadly of business education as being that aspect of the total educational program that provides the knowledges, skills, understanding, and attitudes needed to perform in the business world as a producer and/or consumer of goods and services that business offers. (p. 4)

If general education is thought of as the adjustment of the individual to his environment, business education must be thought of as the adjustment of the individual to his business environment. (p. 8)

Major Points

- Early definitions traced back to 1904.
- Distributive education is a part of business education. For purposes of vocational education, business education has been subdivided into office aspects (business and office education) and distributive aspects (distributive education).
- Business education is education about business and education for business.
- Business education has two major goals:
    1. Preparation for entry and advancement in a business career which involves: (a) training for specific skills for particular types of jobs (i.e., typing, recording, selling), and (b) developing the ability to use these skills in a business environment (i.e., occupational intelligence-- social intelligence applied to business).
    2. Preparation about business for citizens which involves: (a) being intelligent consumers of the goods and services of business, and (b) developing an understanding of the nation's economy.

o Sapre, P. M. (Ed.). (1981). Early leaders in business education at New York University. Reston, VA: National Business Education Association. (Note: this includes a section on Paul S. Lomax who established the business teacher education program at New York University in the 1920's; was editor of the first three yearbooks of Business Education, and editor of the Journal of Business Education for nine years; and who sponsored the founding of Delta Pi Epsilon.)

Selected Quotations

Commercial education is an important major division of secondary and higher education, but it should always be considered as only

an integral part of a well-rounded total education with which every commercial student should be equipped. Our great task as commercial educators is to build commercial education so that it will become better and better integrated with the whole field of secondary and higher education. (p. 44)

Commercial educators . . . should seek to cooperate with business leaders in the development of six main lines of improvement of American business life:

1. To humanize business organizations so that the best intellectual, moral, and social life of all of its members will be conserved.

2. To promote greater efficiency in the production of socially useful goods and services.

3. To seek to bring about a more equitable distribution of socially useful goods and services for the common welfare of all the people.

4. To assist in educating the public to exercise greater "thrift" in the consumption of socially useful goods and services.

5. To foster the conservation, as opposed to the exploitation of basic material resources which condition the social-economic well-being of all the people.

6. To instill in all members of business organizations, as a cooperative social institution, the ideal of "social service" as the working standard and purpose of all business activities. (p. 45)

Major Points

- Business is a form of social institution or economic organization by which to provide goods to people: food, shelter, clothing, education, recreation, government and community control, health care, religion, and art forms.
- Business education has two goals: general economics education and specific vocational education; a given business course should be designed to serve one of these goals or the other. It will not work well to serve both in same course.
- There are four limitations to using job analysis as the basis for education: (a) it is not well refined, (b) many of these skills are not uniformly transferable--there are too many unique situations and human elements, (c) it reveals what workers actually do rather than should do,

and (d) it divides work into a multitude of duties which are not integrated for control and problem solving.

- Education is "a process of continuous growth in the power of satisfactory adjustment of the individual, and of groups of individuals, to desirable life experiences in ever endeavoring to increase human welfare and happiness" (p. 20).
- Business "as an aggregate of business transactions, embodying fundamental business principles, is essentially a mental process of persons who are making judgements of choices in exchanges of values based upon the money concept . . . It is essential to know thoroughly the techniques of business, such as typewriting, shorthand, bookkeeping, penmanship, selling, telephoning, and a multitude of other; but to know them merely as techniques is not education . . . " (p. 71).

Selected Quotations and Major Points: Distributive Education

o Crawford, L. C., & Meyer, W. G. (1972). Organization and administration of Distributive Education. Columbus, OH: Merrill Publishing Company.

o Crawford, L. C. (1975). A philosophy of distributive education. A paper prepared for the National Association of State Supervisors of Distributive Education Task Force on Competency-Based Teacher Certification and The Council for Distributive Teacher Education Task Force on Distributive Teacher Education Preparation.

Selected Quotations

> . . . It is not the name of the subject that makes it vocational--it is the intent of the student and the arrangement of the instructional content. There is nothing inherent in the name of the subject that makes it vocational. (p. xix)

Major Points

- Distributive education is defined as being a separate and distinctive vocational discipline.
- Distributive education addresses the needs of secondary, postsecondary, and adult learners who are preparing for roles in distributive occupations, an expanding field of occupations which encompasses a broad array of distribution, marketing, retailing, and service oriented occupations.
- Some objectives of distributive education are: (a) to prepare individuals

for gainful employment as semiskilled or skilled workers, technicians or semiprofessionals in recognized distributive occupations and in new or emerging distributive occupations, (b) to prepare individuals for enrollment in advanced or highly skilled vocational and technical education programs, (c) to assist individuals in making informed and meaningful occupational choices, and (d) to achieve any combination of the above objectives.

- Four areas of basic instruction included in a distributive education curriculum are: (a) social competency, (b) marketing competency, (c) product or service competency, and (d) basic skills competency. Marketing and economics provide the structural foundation supporting the four competency areas. Included in the social competency area are career development and adjustment.

o Richert, G. H. (1972). Distributive education forges ahead. In Schrumpf, S. S. (Ed.), The origin and development of distributive education. Highstown, NJ: McGraw-Hill.

Selected Quotations

> An understanding of the educational content and service that distributive education renders requires that a clear distinction be made between teaching that takes place in cooperative part-time high school classes, in postsecondary classes, and in classes for adults who are either employed or preparing for employment. In all three teaching situations there are common elements, but each type should be presented separately. (p. 17)
>
> The future of distributive education is inextricably bound to the future of distribution. DE will become as important as distribution is important; it will be as complex, and instruction will be as technical. Distribution is highly individualized; thus it is less adaptable to automatic processes than production is. Educators concerned with distribution have a tremendous responsibility because so much of our future depends on the efficiency of the distribution mechanism. We need educated people in distribution, for the leaders in distribution will determine the future of the American economy. (p. 20)

Major Points

- Early distributive education programs were beset with numerous obstacles.
- In the early days of distributive education, the acceptance of the program varied widely among regions throughout the United States.

- The terms marketing and distribution are often used to describe similar content areas.
- Distributive education teachers are continually encouraged to improve their knowledge of theories and practices in the field of distributive education.
- Distributive education programs have shown a substantial increase in popularity and acceptance since their early years.

o O'Rourke, M. R. (1977). The contribution of John A. Beaumont to the field of distributive education. Unpublished master's thesis, University of Minnesota.

o Beaumont, J. A. (1959, February). Program of distributive education. Paper presented at the National Convention of the Mobile Home Dealers National Association, Louisville, KY.

o Beaumont, J. A. (1958, October). A report on distributive education. Paper presented at the Annual Meeting of the Minnesota Vocational Association, St. Paul, MN.

Selected Quotations

> It is obvious that the distributive education program will be constantly in a state of change. This condition will continue as long as we have a free economy in America. In a free economy the consumer has free choice. In making this free choice the consumer is served through the function of distribution. It is the job of distributive education to be constantly alert to the development of practices that will enable distribution to better serve the consumer. Education discovers new practices. Through education these new and improved practices are made known to those who are engaged in the functions of distribution. In this way a free economy of free choice can continue to serve the American public, not only through the development of competitive practices but also through the development of educational programs which bring about an improvement in the practices and techniques of distribution. (p. 5)

> The term distributive education identifies a program. What this program proposes to do is offer instruction in distribution and marketing. Unfortunately efforts have been made for some time to define distributive education and it becomes rather involved. If you would think of it merely as an identifying term in the same sense that it is identified by the term "John Beaumont"--there is no attempt to define that, it is merely accepted. (1959, p. 1)

Major Points

- Beaumont broadened the distributive education curriculum by including related aspects of economics, marketing, sociology and psychology as well

as the more basic tasks derived from job analysis.

- J. A. Beaumont expanded the field of distributive education by including many other occupations involved in the marketing and distribution of goods and services besides just retail merchandizing.

Selected Quotations and Major Points: Home Economics

o Brown, M. M. (1980). What is home economics Education? St. Paul, MN: University of Minnesota Research and Development Center for Vocational Education.

Selected Quotations

> The product of our inquiry must not be a mere definition of a term: "home economics education." Questions of concept are not questions about use of words; instead, questions of concept ask us to become self-conscious about our own conceptualization so that we can see how to use the definition in practice. (p. 4)
>
> Shallow protests regarding loyalty to the field are professionally detrimental for they irrationally ignore the conceptual mushiness creating the intellectual problems and tensions. (p. 14)
>
> . . . there is evidence of concern for the interests of individuals and families served and of the larger society. Unlike technology, there is indication that home economists are to be critically conscious of the moral justification of the ends sought as well as of means used to reach those ends. Thus, there is concern for more than mere technical rules (applied science) to produce given ends; there is concern also for human values and for equal consideration of persons with competing interests. (p. 41)
>
> . . . the will to be rational is the will to achieve autonomy and responsibility in the action of everyday life. (p. 45)
>
> A free society is not a neutral society in which all values are personally relative, i.e., where each person's values, individually arrived at, are as acceptable as another's. Nor is it one in which all values are culturally relative in that any culture's values, whatever they may be, are acceptable. (p. 47)
>
> As with social change, changes in the family do not necessarily represent progress; the human condition may be worsened rather than made better. (p. 51)
>
> What is needed is a conceptualization of desirable family life formulated by a rational process, open to rational and competent criticism in the cooperative spirit of seeking concensus, and agreed to as justifiable on intellectual as well as moral grounds. Such

an understanding is a different matter than merely looking sociologically at what the family is today or at any given time. (p. 58)

What is lacking in the current interest in the family among the professions is the cooperative attitude and the communicative competence for reaching deeper understandings (about the plight of the family and its problems) and concensus on what actions are right to take in seeking to help the family. In many cases, perhaps unintentionally, many professionals appear to use "service to the family" as a means for keeping their own professions alive when, in fact, their efforts at technical assistance undermine the family still further. Many professionals have unreflectively adopted from society collective ideologies which cause human suffering. Perhaps a place to start in helping families is for us who are professionals to recognize our own dogmatisms and false views, including the contradiction of helping and exploiting. (p. 77)

. . . the educated person is one who exercises the capacity to adopt a non-instrumental attitude, who has knowledge and understanding based on reason and broad in scope, and who has wholeness of perspective. (p. 97)

. . . communication between professional and client is one of search, of mutual enlightenment, of critical reflection in which a problem is adequately defined and its solution sought. It draws upon and makes use of the knowledge held by the client as well as that by the professional. (p. 101)

. . . home economics education is concerned with developing understanding, values, and a breadth of perspective with which the student (as client) will perceive and act upon conditions and problems of the family (including his/her own family but not limited to it). It is not concerned with solving immediate problems (real or hypothetical but not necessarily personal) although such problems may well be used as a vehicle for concrete confrontation with reality in developing the understanding, values, and breadth of perspective regarding the family. (pp. 103-4)

The conceptualization presented here suggests some changes. It would place more emphasis (a) on the family as a source of the improvability of persons as individuals and of the human condition generally and (b) on conditions in society which need to support the family in its efforts and, in contemporary society, which need to change in order to do so. It would place less emphasis on immediately utilitarian knowhow knowledge and more emphasis on developing the conceptual systems and rational capacities of students. It would, therefore, place less emphasis on the skills or crafts of homemaking as central to the good life in the family but it would not eliminate them. They would be recognized as possible services various members of the family could perform but emphasis would be placed on their intrinsic values for persons interested in per-

forming them and on their nurturant values for the family. It would eliminate occupational training as part of home economics education not because such training is necessarily undesirable but because the purposes, the processes and content of the two are categorially different. At some point we have to be intellectually honest with ourselves about this matter; such honesty is not a matter of mere opinion but a matter of conceptual adequacy and rational competence. To define life in the family as an occupation, as has been done in some circles in recent years, narrows the conception of the family to being nothing more than a center of production process. The family as a center of communicative action and of emancipative activity is completely ignored. It would eliminate the comprehensive program which has been a lamination of courses from six or seven areas with little or no integration among them and little or no depth in any of them. This type of program is anachronistic in meeting the educational needs regarding the family in contemporary society if indeed it ever did.

The program would be of equal value to males and females. However, efforts would be concentrated at the secondary and adult levels, the latter including community colleges. The program would be appropriate for all students regardless of whether they are advantaged or disadvantaged, college-bound or not in secondary school, and, among adults, college graduates or high school drop-outs.

The proposed conceptualization of home economics education would require a different program of education for those who enter the profession. It might also require a different set of criteria than we have commonly used for admission to the profession. It will also demand some conceptual re-education of ourselves; unless we are very rigid persons, we should find this exhilarating. It has been pointed out by students of intellectual history that theories which do not get improved in twenty years become dead and fade from the scene. It is symbolic of our own intellectual aliveness when we improve our own systems of concepts and perspective regarding the professional field. (p. 32)

Major Points

- The purpose of this monograph is "to seek clarification and justification of the nature of home economics education" (p. 1). That is, "we are asking what conceptualization of home economics education will meet appropriate intellectual criteria and will provide us with a morally defensible approach to practice" (p. 3).
- The mode of inquiry Brown uses in this monograph is the philosophic method of dialectic.
- Brown argues that both home economics and education are personal service professions which are: oriented toward action based upon disciplined

intellectual endeavor; concerned with solving problems of society which require interdisciplinary knowledge, are broad in impact, and important to society. In particular, "the problems with which home economics is concerned are problems of the family as a family" (p. 56).

- Understanding problems of the family requires attention to the process of formulating problems. "The formulation of human problems . . . is a process in which (a) some desirable state of human affairs is postulated and (b) conditions which prevent or threaten this desirable state of affairs are identified through the use of relevant evidence" (p. 57). Relevant evidence comes from historical study of the family in its social-cultural setting.
- Action of the family falls within one of three categories: (a) technical (instrumental) action, (b) communicative action, and (c) emancipative action.
- Problems of the family as a family are problems of what to do or what should be done. They are problems which are perennial.
- Home economists must understand the problems of families in relation to each of the systems of action.

o East, M. (1982). Caroline Hunt: Philosopher of home economics. University Park, PA: The Pennsylvania State University.

Selected Quotations

> That which is necessary for good homemaking can be determined only by holding fast to the highest ideal of home and by having a clear understanding of changing social conditions. The ideal never changes; the best homemaking must always be an intelligent affectionate effort to help others to attain as nearly as possible to completeness of life by securing for them those essentials of good living which they cannot obtain in other ways as well or better; but while the ideal remains always the same, the means by which it must be realized undergo constant change. (p. 32)

> Since the chief factor in determining the form of home is the need of the opportunity for close and intimate and helpful association, we may disregard the popular fear that the home will finally take upon itself the characteristics of a public institution, and will cease to offer facilities for private life. Human intelligence, which suits means to ends, and which is ever coming to the aid of human affection, will prevent that. So long as affection lasts it will seek satisfactory expression in home life, and so long as intelligence endures it will stand in the way of the extension of

the borders of the home beyond the possibilities of the mutual helpfulness to its members. (p. 32)

The final test of teaching home economics is freedom. If we have unnecessarily complicated a single life by perpetuating useless conventions or by carrying the values of one age over into the next, just so far have we failed. If we have simplified one life and released in it energy for its own expression, just so far have we succeeded. (p. 32)

Major Points

- The purpose of this book is to present a biography of Caroline Hunt, a pioneer in home economics who contributed significantly to the early philosophical statements about home economics. Some of Hunt's papers are reprinted in this book by East. Hunt's writings continue to be studied and discussed as the field examines its purpose and mission.
- Hunt upheld human freedom as the ultimate value toward which home economics should contribute. This freedom, she said, was achieved when individuals could experience health, efficiency, and opportunity.
- East said that Hunt's view was "that each person has an inner life, a self, and that the person's value to the world, and our own personal happiness as well, depends on both the greatness of that inner life and the person's ability to reveal it, to express it. She saw the responsibility of home economics as helping individuals to achieve health, efficiency, and opportunity so as to be free for full expression of that inner self. This freedom was to be secured by careful examination of values, simplification of material surroundings, discarding of useless conventions and traditions, and research on better health and social conditions.

o East, M. (1980). Home economics: past, present, and future. Boston, MA: Allyn and Bacon.

Major Points

- Home economics in its most comprehensive sense is the study of the laws, conditions, principles, and ideals which are concerned on the one hand with man's immediate physical environment and on the other hand with his nature as a social being, and is the study especially of the relation between these two factors. It is a philosophical subject, something to connect and bind together into a consistant whole the pieces of knowledge at

present unrelated.

- East describes four models for home economics:
    1. Management of the household: Economics.
    2. Application of science for improving environment: Human ecology.
    3. Inductive reasoning: Cooking and sewing.
    4. The education of women for womanhood: Homemaking.

Selected Quotations and Major Points: Industrial Education

o Bennett, C. A. (1937). History of manual and industrial education 1870 to 1917. Peoria, IL: The Manual Arts Press.

Selected Quotations

> . . . after all that has been done in technology, there is still a need of a system of training boys, broader and brighter than 'learning a trade', and more simple and direct than the so-called 'liberal education'; . . . upon graduating, they should have sufficient knowledge of machinery and handicraft to enable them to earn a living while pushing their way up . . . (Clarke, 1898, p. 726, in Bennett, p. 311-312)

> The mechanic arts so taught (Woodward's method) were not to teach trades. The products were to have no market value; therefore the shop must be supported in the same way as science laboratories. (p. 337)

> His (Woodward's) vision was in itself prophetic, but he goes on to suggest that possibly the best of us have failed to realize what is involved in the term "education." In our desire to eliminate all narrow utilitarian motives, have we not sometimes run to the other extreme and excluded from our schools important and essential branches of study because they were suspected of being useful? (A pamphlet of Woodward in Bennett, p. 337-338)

> Put the whole boy in school. (Woodward in Bennett, p. 366)

Major Points

- The 1892 Morrill Act made instruction in the manual arts public, although on a postsecondary level. This highlighted the need for similar experiences at the secondary level. Manual arts instruction (postsecondary, normal schools) was not skill training, but was used to illustrate and apply principles of engineering, often called mechanic arts.

- Justification of the need for manual arts instruction included its practical value; the fact that it was not being done at home; and its use in industry and manufacturing.
- The reason for the use of the word "arts" was to separate it from trade/apprenticeship instruction, and to make it part of general education.
- The underlying assumptions of manual arts instruction were that:
    1. It was equal to other school subjects.
    2. It was different from job training in that students would learn the arts, those simple elements common to all jobs. Job training, on the other hand, was the learning of complex combinations of those simple arts.
- Manual arts became a topic for secondary schools due in part to its post-secondary existence. Its purposes were to help students:
    1. Apply skills learned in mathematics, drawing, and English, and practice the use of tools.
    2. Gain opportunities for manual as well as mental labor.
    3. Prepare more directly/positively for life.
    4. Overcome the incompleteness of the general education offerings of schools.
- Manual arts differed from trade preparation by not being narrow, and focusing on the acquisition of general skills rather than production of specific articles.
- Conservative educators opposed manual arts' existence as part of general education because of a fear of lowering academic standards. This caused a de-emphasis on the aim of manual arts as giving " . . . boys a better secondary-start towards a variety of occupations in the industries . . . " and greater emphasis on " . . . the general educational value of manual training, whatever a boy's future might be" (p. 361).
- Manual arts was justified as part of general education as being an essential of general industrial culture.
- Technical/mechanic arts high schools differed from manual arts. Their aims involved preparation for vocations and opportunities to specialize.
- The vocational education movement developed from a need for trade preparation for students not in school, who were not leaving with a trade. It involved questioning of the assumption that public funds could not be used for trade development.

o Barlow, M. (1967). History of industrial education in the United States. Peoria, IL: Charles A. Bennett Co., Inc.

Selected Quotations

> Lack of qualified teacher education is a story as old as the entire program. (p. 234)
>
> One of the most difficult problems in teacher education has been the relationship between trade experience and academic training . . . contemporary rationale places a premium upon both trade experience and academic training as [illegible] aspects in the background of a good teacher. (p. 237)
>
> The major problem in trade and industrial teacher education in 1965 was the same as it was in 1917--the need for better teachers. (p. 238)
>
> Perhaps the most significant reason for continued successful adjustment of industrial arts has been the primacy of the 'boy' as the central theme: the boy as an individual, the boy as a member of a social group, the boy whose interests transcend localism and extend to international and interstellar environments. (p. 290)

Major Points

- Teacher education in industrial arts can be traced to the late 1800's. In 1918, 184 institutions in 43 states provided training for manual arts. Early leaders were Bennett, Bawden, and Selvidge. In 1927, the American Vocational Association Committee was formed to study problems associated with industrial arts teacher education instructional improvement. Similar activities (to disseminate related information) could be identified through the early sixties. The National Association of Industrial-Technical Teacher Educators also promoted the study of industrial arts teacher education. These efforts lacked continuity, however, until the American Council for Industrial Arts Teacher Education was formed in the fifties.
- The National Society for the Promotion of Industrial Education provided a framework for trade and industrial teacher training as early as 1913. After passage of the Smith-Hughes Act, there was growth in emphasis in teacher training, with support coming from the Federal Board for Vocational Education. The Board's function transferred to the U. S. Office

of Education in 1933. A 1936 conference utilized Prosser's expertise to analyze teacher training. The National Association of Teacher Trainers was organized in 1937.

- The factors affecting the development of industrial arts since 1917 include: lack of general acceptance and support from general education, World War I, the "bird house era", the depression, World War II, reconstruction, and space technology. Factors affecting the development of trade and industrial education since 1917 include: World War I, the depression (unemployed persons could be served, thus reflecting a major social responsibility), World War II, and the advent of the "technician."

o Bonser, F. G. (1932). Life needs and education. New York: Columbia University Teacher's College.

Selected Quotations

> All of what we call the tool subjects, the processes of reading, spelling, writing, and arithmetic, are but instruments of means by which we engage in the real activities of life. Although they are essential as tools, the mere learning of them as mechnical process has very little educative value in itself. One may be very ignorant, very inefficient, very immoral, and still be able to read and spell and write and figure passing well. (p. 3)
>
> . . . the schools have spent most of their time in making children acquire the bare facts and skills of the school subjects quite unconnected with their use of meaning. (p. 4)
>
> Recent conditions have brought about a consciousness of need for more intelligence and training among the workers in industrial vocations that is almost phenomenal in its breadth and intensity. (p. 69)
>
> It is offered that the general school system should provide as a part of its legitimate work those phases of the industrial arts which are primarily educational; and that whenever specialized training whose chief endpoint is a high degree of skill and technical efficiency becomes the primary aim, the work of the segregrated trade or vocational school or course should begin. This attitude for both the elementary and the secondary schools in the general system would limit work in manipulation of materials and processes of construction actually participated in to those whose purpose is the development of clear idea and appreciative insights. (p. 71-72)
>
> The manipulation of materials--work with the hands in wood, iron, textiles, foods, or clays--is here for the purpose of helping the

mind to grasp the meaning of these industrial activities--to utilize expressive capacity along with acquisition. (p. 76)

Probably two usual periods each school day in actually doing shop or laboratory work of some kind could be required and justified on an educational basis. So long as the student is dealing primarily with ideas, with activities full of meaning, and not merely with hand manipulations, the work has educational worth. (p. 84)

There is a valid demand that the materials and work of the schools should be all shot through with the most fundamental relationships of daily life activities. (p. 85)

By industrial arts we mean a study of the ways and means by which we are efficiently supplied with the materials and products which we use in daily life. (p. 96)

Industrial arts is thus a study that enlists all of the learning and active impulses and abilities of children--manipulative, investigative, aesthetic and social. It represents fields of real need in both child life and adult life. It uses the minds of children quite as much as their hands. (p. 105)

Industrial Arts, as a school subject, is the distilled experience of man in his resolution of natural materials to his needs, for creature comfort, to the end that he may more richly live his spiritual life. But this experience must ever be in due relationship to the experience of the race in living this spiritual life itself or our true purpose is defeated. The making of products in wood, metals, textiles, clay, or food materials, in themselves, has relatively little of high spiritual value. The test of all lies in the spirit, the meaning, the significance of the work. Working for the product alone or for the pay alone is altogether different from working in the spirit of Stradivarius when he proclaimed that not God Himself "could make Antonio Stradivari's violins without Antonio." (p. 93-94)

Major Points

- The primary aims of both education in general and in industrial arts are to bring more meaning to life.
- The basics have little value as an end of themselves. Their importance is in their use, especially for living and enjoying life.
- As a means of enlarging and preparing for life, four purposes of vocational education were suggested:
    1. Preservation of health.
    2. Development of practical efficiency (skills).
    3. Preparation for responsible citizenship.

4. Training in the wise use of leisure.

- Because many students are not bound for college or leave high school, there should be a tracking system, in which to encourage students to remain in school by making it more relevant for them by providing them their own vocational "track".
- While vocational education is training in which skills are developed for an activity, industrial arts' purpose is to appeal to that which all students have in common.
- One foundational principle is that there is more alike among students than different, and industrial arts was directed to those commonalities, while vocational education, in a separate school, and/or a postsecondary institution, addressed the dissimilar/specific characteristics of students.
- Industrial arts should go beyond "making book racks . . . or forging cold chisels (specific interests) . . . to those higher values (of life activities)" (p. 86).
- Industrial arts:
    1. Is the " . . . study of the ways and means by which we are efficiently supplied with the materials and products which we use in daily life" (p. 96).
    2. " . . . enlists all of the learning and active impulses and abilities of children . . . It was the minds of children quite as much as their hands" (p. 105).

o Mays, A. (1927). The problem of industrial education. New York: The Century Company.

Selected Quotations

> Like all other new subjects, the question as to the content of the general courses for industrial education received various answers and even now there is nothing approaching a standardization of subject matter. (p. viii)
>
> The aim of the general continuation school with reference to character development is that of helping working children remedy character defects . . . (p. 175)
>
> The best type of modern high school industrial arts is characterized by: (1) large variety of shops . . ., (2) equipment representative of the best modern industrial practices, (3) the production of marketable products . . ., (4) the careful study of . . . modern industries . . . and economic problems . . . (p. 196)

Major points

- Modern factory organization has not been able to train workers in the same way as the apprenticeship system.
- No one type of training is appropriate for all types of industrial work.
- Two factors that appear to be necessary to vocational industrial education include vocational industrial schooling and production shop.
- Harmony between the worker, school, and industry is essential for adequate industrial education.
- The educational program needs to be able to adapt to changing conditions.
- The part-time school was an adaptation to the economic condition of life. It differed according to the age of the child.
- The chief purpose of schools designed to serve children aged 14-16 years is to help them adjust to the social and occupational life they are entering.
- The needs of the children must be known so that alternatives are available to them.
- Curriculum must be efficiently organized.
- Industrial arts has suffered from a lack of definition.
- There is a distinct difference between the industrial arts and the occupational emphasis; training is different for each.

o Warner, W. E. (1935, February). Industrial arts research, Industrial Arts and Vocational Education, 38-45.

Selected Quotations

> . . . education about industry is one of the fundamentals in public education . . . (p. 40)
>
> . . . the stupid tradition and assumption that such obviously minor techniques as learning to read, write, and figure are conceived of as the fundamentals in public education . . . (p. 40)
>
> Industrial arts is an unusually significant phase of general education . . . We live, obviously, in the midst of a great industrial civilization. Occupational shifts are wide and rapid . . . These and other points indicate the need for a more flexible type of education. (p. 41)
>
> Industrial arts is defined as but one of the practical arts where studies about agriculture, commerce, and the home are included as well. (p. 41)

Major Points

- The purposes of education involve application of the "basics" rather than the "basics" as ends in themselves.
- The fundamentals of public education include:
    1. Education about industry.
    2. Studies concerning agriculture.
    3. Studies concerning commerce.
    4. Studies concerning physical and health education.
    5. Studies of the fine arts.
- Prior purposes of industrial arts were related to its early names of Manual Training and Manual Arts. In Manual Training, hand skills in wood working were emphasized. In Manual Arts, hand wood working skills were applied to things which were useful and well-designed. Industrial Arts' purpose is to broaden the previous phases, especially the limitation imposed by "manual" skills, to include a general study of industry and its products.
- Rapid technological innovation was responsible for "wide and rapid" occupational shifts, justifying differences in purpose between Industrial Arts and its precursors, Manual Training and Manual Arts.
- Industrial arts was envisioned by Warner as one of the "new fundamentals" because of its increasing relevance in an industrial society.

o Olson, D. (1983). Industrial arts and technology. Englewood Cliffs, NJ: Prentice Hall Inc.

Selected Quotations

> . . . it is the responsibility of the school to acquaint its students with the nature of technological culture and to assist them in discovering and developing their talents therein. This should be the province of industrial arts. (p. vii)
>
> The industrial arts are those occupations by which changes are made in the form of materials to increase their values for human usage. As a subject for educative purposes, industrial arts is a study of the changes made by man in the forms of materials to increase their values, and of the problems of life related to those changes. (Bonser, F., 1935, p. 15 in Olson, 1963, p. 7).

Major Points

- Industrial arts evolved from an acceptance of work as an important educational concept, moving through the manual training, manual arts and

industrial arts stages to the relatively broad, "general education"-oriented definition first put forth by Bonser. This definition advocated the study of changes in man's use of materials and the resulting affects. A later interpretation described industrial arts as a practical form of general or nonvocational education.

- The aim of the "new industrial arts" is to advance technology through the advancing of the human, who in turn would advance through understanding of technology. This would not occur through narrow expectations that were limited to technical competence. A preference was given to "statements of objectives that move us along broad onenesses of human experience to a full view of the technology, that man-made phenomenon to set all men free" (p. 163).
- Industrial arts should be concerned with the whole child, serving technical, occupational, consumer, recreational, cultural and social functions. Its subject matter should be drawn from analyzing (a) types of industries, (b) their functional components, and (c) the functions of industrial arts.
- Industrial arts is capable of serving every individual at all levels of education, beginning with an introduction to technology at the elementary grades, moving toward general study of manufacturing industries in junior high, and then offering more specific, in depth study of types of industries in senior high.
- Characteristics of the "new" industrial arts:

    1. It is based on subject matter that is subject to change, is continuous and progressive, reflective of technology, complex and dynamic.

    2. It is learning that is seen as a continuous, life time process.

    3. Students may advance rapidly, and deviate from prescribed ways if better ones are discovered.

    4. Teachers are resource persons, counselors, and consultants. Whether they are men or women, they have "pedogogic proficiency" and encourage creativity.

    5. Methods are used which have a basis for learning in reasoning, problem solving, creating and constructing. Skill has an intellectual quality--it is a composite of competences.

o Strong, M. E., & Schaefer, C. J. (1975). Introduction to trade and industrial and technical education. Columbus, OH: Charles E. Merrill Publishing Company.

Selected Quotations

> The mission of TRADE AND INDUSTRIAL EDUCATION in tomorrow's world is to continue the achievements of a skilled and progressive people. Its record of service to the nation in peace and in war can be mentioned with pride. Too few Americans understand or appreciate the scope of these accomplishments or how they have been brought about. Even greater accomplishments in trade and industrial education will be necessary to assist in providing the better life in the years ahead. (p. 64)
>
> The mission of trade and industrial education is the development of PEOPLE--not products; people who can produce; people with adaptability to these dynamics of the era; people whose occupational interest or employment is in trade, service, or technical pursuits--from the lowest to the highest positions; people who share the benefits and the responsibilities of a democratic society with all other people. (p. 64)
>
> Technical education, on the other hand, has been viewed by most practitioners as different from trade and industrial education. Technical education is a generic term encompassing many and varied levels and types of technicians. A technician may work under a wide variety of titles, most of which do not include the term technician. It is apparent that a sharp line cannot always be drawn to differentiate semi-professional activities such as computation, analysis, or laboratory testing from those that border on skilled labor, such as installation or trouble shooting on mechanical, electrical, or electronic equipment. The degrees of technical ability required by these jobs varies considerably. (p. 65)
>
> At this time of "career education," the mission of trade, industrial, and technical education is confused. Its role at the secondary and postsecondary levels of the educational enterprise is not clearly delineated; and its contribution as a delivery system is questionable. Moreover, the place of trade, industrial, and technical education in the total concept of "career education" appears confounded in terms of the curriculum to be offered, the requisities of the teacher, and the type of physical facility required to support the learning process. The general notion of job clusters and the apparent demise of industrial arts, especially at the high school level, further confound the issues. (p. 214)
>
> Somewhat the same question could be asked about the lack of females. It appears that there are "typical" curricula--and only such curriculum--for females in trade, industrial, and technical areas. Are opportunities being made available for girls to enroll in the curricula they desire and where they have the motivation and ability

to achieve? Why are there not more girls in various drafting curricula, for example?

Questions of exclusiveness need to be raised as to how open are trade, industrial, and technical education programs. Moreover, answers need to be found for problems encountered in placement and follow-up of minority and female graduates of programs. (p. 216)

What degree of occupational versus pedagogical competency should be expected of trade, industrial, and technical teachers? Does the concept that a teacher must first and foremost be a master of his subject matter still hold today? (p. 216)

The issues facing trade, industrial, and technical education are many and are as prevalent today as they were in the past. Solutions to such problems as changes in philosophy, curriculum, delivery systems, staffing, outreach to females and minority groups, teaching competencies, in-service preparation, and the reporting system need to be found. It is one thing to identify the problem, but another to bring to bear a body of knowledge which helps in its solution. This latter element (hard factual data) has eluded those in trade, industrial, and technical education far too long.

Major Points

- Apprenticeship provides social and economic solutions (voluntary and involuntary). Some characteristics were that:
    1. It provided job skills without tax dollars.
    2. The master was required to provide literacy training.
    3. It provided support for the poor (income transfer for special needs students).
- The 1917 Smith Hughes Act appears to focus on employers needs.
- The 1963 Vocational Education Act appears to focus on people categories.
- It can be seen that the ". . . early leaders in vocational education had the needs of people in mind as well as the needs of employers" (p. 43).
- There is a need to understand the labor force in planning trade and industrial programs.

o Towers, E., Lux, D. & Ray, W. (1966). A rationale and structure of industrial arts subject matter. Columbus, OH: Ohio State University and the University of Illinois.

Selected Quotations

For more than half a century industry has been viewed as the source of subject matter for industrial arts. Despite this, an adequate

structure of the knowledge of industry, as an essential in the identification and organization of industrial arts subject matter, has not been conceived. (p. 29)

Industrial arts is an organized study of the knowledge of practice within that subcategory of the economic institution of society known as industry. (p. 43)

Major Points

- Industrial arts is different from industrial technology. Industrial arts may include the study of industrial functions in order to understand their effects on materials and humans in industry. Industrial technology is more vocational in nature.
- Industrial arts may be studied from pre-school through adult and specialized studies.
- The source of industrial arts subject matter is not clearly defined; however, if technology is considered to be knowledge of practices in societal institutions and one of these institutions is economic, within this is the element of industry. The knowledge of industrial practices is industrial arts' subject matter.
- In order to be effective, a secondary school program should (a) provide for the study of fundamental principles of practice, (b) include selected practice, and (c) give a broad theoretical base.
- Industrial arts needs to develop a structure of its body of knowledge and subject matter.
- General factors or elements that should be taken into account when developing learning experiences and course materials for industrial arts include: (a) structure of the body of knowledge, (b) objectives of instruction, (c) nature of the learner, (d) school facilities and materials, (e) instructional materials, (f) procedures and materials, and (g) measurement and evaluation.

o Schill, W. & Arnold, J. (1965). Curricula content for six technologies. Urbana, IL: Bureau of Educational Research and Department of Vocational and Technical Education, University of Illinois.

Selected Quotations

The technician . . . must have the basic knowledge to communicate with the engineer and scientist; in addition, he must have a working knowledge of the production set-up . . . (p. 4)

. . . the scientific or engineering technician is required to use a high degree of rational thinking and to employ post-secondary-school mathematics and principles of physical and natural science. He thereby assumes the more routine engineering functions . . . he must effectively communicate scientific or engineering ideas mathematically, graphically, and linguistically. (p. 5)

Major Points

- There is a reciprocal relationship between changes in occupations and sociological structures.
- Technological advances increase the power and status of "the expert."
- Confusion exists regarding the definition of "technician." It is a new role within technological society.
- Criteria of training and education, function and skill have been used in defining technician roles.
- Changes in technology, occupations, and societal factors contribute to the need for revised curricula in vocational education.
- The results of a study that featured data collected by interviews and a card sort from technicians and managers within 500 randomly selected industries employing over 20 people showed that: (a) reasons for taking a particular job varied according to the stage of the individuals career pattern, (b) type of program taken in high school was related to level of employment in first job, (c) first jobs are not necessarily related to ongoing career patterns, (d) it is possible to identify core knowledge related to technologies (technical writing, engineering graphics, mathematics, use of test equipment), and (e) items rejected within social science were all related to the organization, development, laws and labor movements of the business structure.
- Computer operation and programming were not viewed as technician functions. The only technicians involved with computers in the study were those doing maintenance.

o DeVore, P. W. (1983, December). Research and industrial education: searching for direction. Paper presented at the Annual Meeting of the American Vocational Association, Anaheim, CA.

Selected Quotations

The nature of education must be compatible with the present and projected society in which it exists. (p. 3)

> If the practitioners of industrial education had been involved in study and research about industry, then they would have been involved very early in environmental issues, worker health and safety, community and worker control of industries, microprocessor controls in industry, quality control through better design, employee adaptability to technological change, the enhancement of innovation and invention, and productivity questions, among others. (p. 5)
>
> We have reached that stage of evolution where a major transition is required if the field is to continue as a viable field of education and contribute to the solution of some of society's very significant and critical problems. (p. 5)

Major Points

- Understanding education's purpose is fundamental to discussing its appropriate research, but there is no definitive/final answer.
- Perception of purpose is related to one's world view, which must be examined in the context of the world's existence in the present/future. That context is:
    1. Increasing technological complexity.
    2. Increasing population.
    3. Resources becoming limited.
    4. Higher entropy and disorder.
    5. The mentality which assumes constantly increasing production, consumption, and growth is becoming more inappropriate.
- Past/present purposes of industrial education were job, career/occupation preparation, and evaluation of industry's manufacturing processes. Issues of work in society should also have been addressed.
- Future purposes of industrial education should be developed immediately; we can use as criteria learning which is of greatest worth, serves for the longest period of time, is useful in the greatest number of situations, includes knowledge and know-how of behavior of industrial/technological systems, and has the goal of controlling technology by literate human beings.
- Technology does not have a craft focus. Its conception is that of a discipline/science: it is "the science of technical means and human adaptive systems, including the study of the creation, evolution, utilization, and behavior of technical means and adaptive systems in relation to human beings, society, and the environment" (p. 12).

Implications for Purpose of Secondary Vocational Education

Discussion of the above summarized materials concerning the purpose of the specific fields within vocational education focused on three questions: (a) How is the purpose of the specific field stated, (b) What is common and unique about the purpose statements, and (c) What are the resulting implications for the purpose of vocational education in the secondary school? Concerning the first question, a brief statement was developed to encompass the purpose of each specific field from the materials reviewed. The statements were as follows:

- Agriculture Education
    1. Develop occupational skills for farming and agri-business.
    2. Develop ability to obtain employment and advance.
    3. Develop knowledge of agricultural occupations.
    4. Develop human relations skills.
    5. Develop leadership skills.
- Business Education
    1. Preparation for entry and advancement in business careers which involves specific job skills and occupational intelligence.
    2. Preparation <u>about</u> business which involves intelligent consuming and understanding the nation's economy.
- Distributive Education
    1. Preparation for gainful employment as semi-skilled or skilled workers, technicians, or semi-professionals in recognized occupations or new and emerging distributive education occupations.
    2. Preparation for enrollment in advanced vocational and technical programs.
- Home Economics Education
    1. Help to achieve the freedom to fully express one's inner self; this involves achieving health, efficiency, and opportunity.
    2. Focus on an interdisciplinary approach to the problems of the family as a family which involves enabling families to function with their own strengths and solve problems in a rational way.
- Industrial Education
    1. Understanding of technological systems by technologically literate citizens.

2. Preparation for satisfying and productive employment in industrial occupations.

Looking across these purpose statements for what is common resulted in the following observations:

1. Each field has an aspect of general and specific education.
2. All the fields are considered by their supporters to be a legislative part of education in the secondary schools.
3. Within the cluster of specific education functions common to each field, one of the specific functions has to do with preparation for work or an occupational role (a specific economic role in society). Some of the fields have other specific functions (i.e., relating to family, consumerism, technological advance).
4. One rationale for including these subjects at the secondary school level is the expectation that for some students, secondary education may be the termination of schooling--a last chance to get help in living in our society.
5. There is a concern for making a choice and developing knowledge for making choices in areas such as careers and family.
6. Implicit in the purpose statements is concern for breadth (in terms of a variety of occupational roles) and depth (in terms of knowledge needed to function in these roles); often they are in tension with one another.
7. Each field displays a focus on a specific area of content (subject matter).

In contrast to what is common about specific areas within vocational education are aspects that are unique and which tend to distinguish each field. Observations about what is unique were as follows:

1. The degree of emphasis on the individual as being proactive rather than reactive in a changing society (i.e., home economics and aspects of industrial education were most proactive in their stance).
2. Delimitation to work roles not requiring a baccalaureate degree (i.e., agriculture, business, and home economics were least delimiting in this regard).

3. Degree of sensitiveness and importance attached to larger social context (i.e., business, home economics, and aspects of industrial education were most sensitive and attached most importance).
4. Concern for different types of knowledge and different sets of problems (i.e., emphasis on the technical).

During the discussions which led to the above observations, several interesting issues emerged which seem relevant to developing a purpose statement encompassing all or part of the purposes of these specific fields for vocational education in the secondary school. First, in all cases the present specific fields of vocational education began before federal legislation was initiated in 1917. Often, these fields were broader (and some still are) than vocational education conceived as only preparation for work (especially broader than training for a job). The emergence of federal vocational education seems to indicate a narrowing of the purpose of these specific fields, especially by focusing the purpose on more specific work-centered education. This especially seemed to be the case in business education, industrial education, and home economics. An interesting exception appears to be distributive education which initially provided narrow job training for women as retail store clerks and which has since broadened to include a wide range of occupations and more encompassing goals (i.e., preparation for further education, career decision making).

Second, a helpful means by which to discuss the purpose of at least some of the fields was in terms of "for" and "about" which was made most clear in business education. Education "for" characterizes the more specific aspects of the field, that is for a particular set or cluster of occupational roles (i.e., agriculture, business, distributive). Education "about" is one way to refer to the more general education aspects of the field, that is education about agriculture, business, industry or the home (or family). It may be that these two different types of education are not best taught in the same classes; certainly it would seem that education "about" would be relevant for a wider clientele group then education "for". Often the emphasis on education "for" (occupations) is in tension with education "about" (subject matter).

Third, it was not possible to quickly develop a conceptual framework or structure in which to neatly place all of the specific fields. One dimension initially thought useful was "function". This seemed at first to discriminate between agriculture and distributive education, but even here there was overlap

in that agribusiness occupations entail distribution of agricultural services and products. In fact, there seemed to be a lot of overlap in occupations across fields particularly when using the title of the field as the only classifying criterion. In practice, some of these overlaps have been arbitrarily decided (i.e., service occupations assigned to home economics, agricultural sales occupations to agriculture). Even the subject matter of the fields overlap as enabling knowledge and skills in the social and physical sciences provide the basis for more specific occupationally relevant skills. The fields seem to differ, however, in the extent or explicitness of an interdisciplinary foundation to the content of their programs (i.e., home economics and aspects of industrial education were most explicit about the importance of an interdisciplinary perspective). It may well be that some of the specific fields have a more explicit (and perhaps defensible) conceptual framework then that of what is to be the more encompassing field--vocational education.

Fourth, the purpose statements for the different fields appear to be at different levels of abstractness (i.e., some appear more as global mission statements linking to the larger society while others were more specific purpose statements, perhaps within an implicit mission statement) dealing most often with the economic functions of society and then with the production and consumption roles of individuals. For example, the purpose may first include, as in the case of agriculture, preparation for farming and agribusiness occupations. If asked <u>why</u> this was the purpose, a common response might be to improve agricultural production. And, <u>why</u> improve agricultural production?--to improve the standard of living of rural people and the nutrition of all the world's people. And, so it goes by repeatedly asking the question why and, in so doing, repeatedly lifting the level and generality of the question and its response. For industrial education, the route to improving society would be through understanding technological systems and for home economics education, through the family. But why have the specific fields choosen, as a first response to the question of purpose, to respond at different levels?

Fifth, several of the fields and most specifically industrial education have at least as much variation within the field itself as between fields in their purpose statements. There are marked differences in purpose as espoused by those in industrial arts as compared with those in trade and industrial education. Furthermore, these distinctions change over time with subtle emphasis

shifts within each field (e.g., the shift from industrial arts to technology education). Or as in the case of business education, from business education to business and office education. Each field varies with respect to the amount of disagreement and dialogue within it concerning purpose. Agriculture appears to have relatively little disagreement while home economics and industrial education have much more. For these latter fields, the issue of labels is very sensitive to its professionals.

Sixth, several of the fields, particularly home economics and industrial education, are often initated before the start of secondary education. Because of their early commencement, these fields may be especially committed to the general education aspects of their purpose statements.

Seventh, at least two of the fields, distributive and agricultural education, have strong ties to using the community as a setting for education. The special mechanism which facilitates this is the cooperative work experience program (also sometimes labeled a supervised occupation experience program).

Eighth, the meaning of key words is important in trying to understand the purpose of each of the specific fields within vocational education. Terms such as technology, work, agri-business, family, and freedom take on special meaning in statements of purpose. There is a need for shared meaning if there is ever going to be anything resembling a real understanding of purpose which can enlighten the process of identifying commonalities and unique differences.

Ninth, the above analysis has made us aware of the underlying complexity of each of the specific vocational fields--almost to the point of wondering if the term "vocational education" can authentically be used to encompass the goals of each field. Perhaps vocational education can only be used if interpreted very broadly, at least at the secondary school level; certainly, it cannot be delimited to only training. What is also apparent is the arbitrariness in drawing lines between fields and describing commonalities and unique aspects. In some cases, it is just that different aspects of purpose may be weighted differently. Perhaps it is unreasonable to assume that all this can be made to fit together neatly. However, one must try if the term vocational education is to have any meaning in reference to specific fields of study. As a group, we are quite sure we have not identified all of the common and unique aspects of each field because, for one reason, we don't even have unanimous agreement among ourselves on those aspects we have identified as common and unique. Rather, we

have been "trying on what other people have said" toward building our own agenda of issues to be addressed in developing a purpose statement for vocational education in the secondary school.

Summary

In view of the above synthesis, it seems most relevant to summarize this section by recounting those aspects of the specific vocational education fields which were seen as common and unique. This is done even in the light of the caveat that the characteristics identified are surely arbitrary and supported with mixed agreement. However, these aspects should form some basis for an initial consideration of a purpose statement for vocational education which is sufficiently encompassing and/or straightforward.

Common aspects:

1. Both general and specific education.
2. Legitimate part of secondary education.
3. Preparation for work as one of specific functions.
4. Constitutes a part of terminal education.
5. Concern for making wise choices.
6. Concern for breath and depth of knowledge.
7. Focused on specific area of subject matter.

Unique aspects:

1. Emphasis on individual as proactive.
2. Delimitation of work roles.
3. Importance attached to larger society.
4. Address a particular type of knowledge or problems.

Knowing that each field is unique and yet claims to be a legitimate part of education, it is only reasonable to next probe the purpose of the concept called "education". What does or should it mean to attach the label "education" to vocational education and each of its specific fields?

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Part V

Implications of 20th Century Perspectives on the Purpose of Education

Reflection on the phrase, vocational education in the secondary school, stimulates questions about how vocational education relates to the grand notion of education in total. If vocational education is to be an integral part of education (which is assumed here), the larger purpose of education must be considered and a context within which to consider the purpose of vocational education must be formed. For this reason, the study group decided to examine 20th century perspectives on the purpose of education. Since only a limited number of authors could be reviewed in the time available, a potential list of widely known and respected authors who had addressed the purpose of education was first developed by reviewing references such as the History of Educational Thought. This list was submitted for review to two educational philosophers--one at the University of Minnesota and the other at Harvard University. From the resulting list, each study group member chose one or more authors. Most, but not all, authors on the list were reviewed.

Selected Quotations and Major Points

- Archambault, R. D. (Ed.). (1964). John Dewey on education, selected writings. New York: The Modern Library.

  Selected Quotations

  > And it is the process and not merely the result that is important. (p. 4)
  >
  > When the school introduces and trains each child of society into membership within such a little community, saturating him with the spirit of service, and providing him with instruments of effective self-direction, we shall have the deepest and best guaranty of a larger society which is worthy, lovely, and harmonious. (p. 310)
  >
  > Respect for individuality is primarily intellectual. It signifies studying the individual to see what is there to work with. Having this sympathetic understanding, the practical work then begins, for the practical work is one of modification, of changing, of reconstruction continued without end. The change must at least be towards more effective techniques, towards greater self-reliance,

towards a more thoughtful and inquiring disposition, one more capable of persistent effort in meeting obstacles. (p. 7)

In short, our culture must be consonant with realistic science and with machine industry, instead of a refuge from them. And while there is no guaranty that an education which uses science and employs the controlled processes of industry as a regular part of its equipment will succeed, there is every assurance that an educational practice which sets science and industry in opposition to its ideal of culture will fail. Natural science has in its applications to economic production and exchange brought an industry and a society where quantity alone seems to count. It is for education to bring the light of science and the power of work to the aid of every soul that it may discover its quality. For in a spiritually democratic society every individual would realize distinction. Culture would then be for the first time in human history an individual achievement and not a class possession. An education fit for our ideal uses is a matter of actual forces not of opinions. (p. 293)

The acquisition of skills is not an end in itself. They are things to be put to use, and that use is their contribution to a common and shared life. They are intended, indeed, to make an individual more capable of selfsupport and of self-respecting independence. But unless this end is placed in the context of services rendered to others, skills gained will be put to an egoistic and selfish use, and may be employed as means of a trained shrewdness in which one person gets the better of others. Too often, indeed, the schools, through reliance upon the spur of competition and the bestowing of special honors and prizes, only build up and strengthen the disposition that makes an individual when he leaves school employ his special talents and superior skill to outwit his fellows without respect for the welfare of others. (p. 11)

Major Points

- The purpose of school must be seen as it relates to society.
- Learning in school should have some relationship to real life. The end should have something to do with social cooperation and community life.
- We should not emphasize only the final product, because this just results in competitiveness.
- Occupations in schools should not be for the mere purpose of gaining better technical skill, but rather to understand how man fits into the world.
- Have learning create understanding.
- We should not be separating theory and practice.

o Whitehead, A. (1929). The aims of education and other essays. New York: MacMillan.

Selected Quotations

> Education is the acquisition of the art of the utilization of knowledge. (p. 6)
>
> Over vigorous discipline in education is so harmful. The habit of active thought, with freshness, can only be generated by adequate freedom. (pp. 49-50)
>
> Education is the guidance of the individual toward a comprehension of the art of life. (p. 61)
>
> (In technical education) is a commonwealth in which work is play and play is life. (p. 67)
>
> If, in the troubled times which may be before us, you wish appreciably to increase the chance of some savage upheaval, introduce widespread technical education and ignore the Benedictine ideal that work should be "transfused with intellectual and moral vision" and thereby turned into joy. Society will then get what it deserves. (p. 68-69)
>
> There is no such thing as a successful system of education in a vacuum. (p. 117)
>
> Students are alive, and the purpose of education is to stimulate and guide their self development. (p. v)

Major Points

- There is danger in the "mental dryrot" of education that is based on inert ideas, (those which are simply taken into the mind but not used) for it is not only useless, it is harmful.
- Education should develop understanding and appreciation of the power and beauty of ideas. It should lead to the development of a sense for style, (which Whitehead calls the "ultimate morality of the mind"), knowledge, and power.
- Learning and development and, consequently, education can be described in terms of rhythmic stages: romance, precision, and generalization. These stages occur in a repetitive, cyclical manner that may be different for various types of knowledge. (One could be in the "age of precision" in language, and the "age of romance" in science simultaneously.) The stage of precision dominates in the traditional form of education.
- Technical education should be literally construed as intellectual enlightenment. While it generally is training in the use of knowledge for

production purposes, it embodies discovery and understanding of what is discovered. It is powerful because it is concrete and provides opportunity to transform, in manual terms, the knowledge gained.

- We should aim to produce people who have both culture and expert knowledge in a special direction.
- Pupils should be interested, challenged, involved, observant, and happy.

o Peters, R. S. (1973). Aim of education. In R. S. Peters (Ed.), The philosophy of education. London: Oxford University Press.

Selected Quotations

"Education," like "reform," is not a concept for picking out any specific activity, but for laying down criteria to which a family of activities must conform. (p. 15)

It is only too easy to slip into looking for some distant objective beyond education which educators might be trying to bring about for educators. But this would be impossible if education means the initiation of people into a worthwhile form of life; for how could there never be any end of value beyond this which it would be possible to bring about? (p. 16)

A hall-mark of a good school is the extent to which it kindles in its pupils a desire to go on with the things into which they have been initiated when the pressures are off and when there is no extrinsic reason for engaging in them. (p. 18)

We use the phrases "trained in" and "trained for" when we wish to talk about vocational, utilitarian, or specialized pursuits. We do not speak of a person being educated in, or for, or at anything in particular. This does not mean, of course, that an educated man must not be trained in something. It only rules out the possibility of his being just trained. (p. 19)

To be educated is not to have arrived at a destination; it is to travel with a different view. What is required is not feverish preparation for something that lies ahead, but to work with precision, passion, and taste at worth-while things that lie to hand. (Peters, 1965, p. 110 in Peters, 1973, p. 20)

If anyone is engaged in an activity like cooking or fishing that has a palpable and determinate point to it, talk of "aims" seems rather obtuse; but when there is a group of activities directed toward a cluster of ends that are highly indeterminate, the demand for "aims" serves an obvious function. It focuses attention on some neglected priority. (p. 20)

As the forms of knowledge and understanding defining the outlook of an educated man are inseparable from the principles of

procedure which characterize the public situations in which they are acquired, developed, and transmitted to others, there is no inappropriateness in emphasizing as "aims" of education the procedural aspects of this situation. For principles immanent in them, such as freedom, or respect for evidence, can be treated as priorities and can structure the activities of education as well as more usual aims. (p. 26)

Major Points

- Aims are used in a context where it is thought to be important to get people to be more specific about what they are doing.
- Aims suggest effort toward an objective that is difficult and not close at hand.
- Aims suggest the possibility of failure or falling short.
- Discussion of aims is particularly important and common in education because it is a "highly diffuse" and "difficult" activity which engages people seriously, but one which is not altogether clear what is to be accomplished, tangible results are difficult to come by and there is constantly the possibility of falling short.
- Two sets of criteria were described for deciding what is "education":

    1. Criteria that characterize successful outcomes of education (the educated person):

        a. An educated person must be capable of pursuing an activity (i.e. science, cooking) "for what there is in it as distinct from what it may lead on to or bring about"--able to "delight" in such things for their own sake.

        b. An educated person, besides being skilled, must possess some body of knowledge and some kind of conceptual scheme to raise this about the level of a collection of disjointed facts--must have some understanding of the "reason why" of things.

        c. An educated person cannot be narrowly specialized--the person must be able to see a connection in his/her activities to a coherent pattern of life.

        d. An educated person's knowledge and understanding must permeate his way of looking at thing--it must transform his total outlook.

    2. Criteria that characterize the processes by which people become more gradually educated (These are much less developed by Peters.): self-realization of the individual, growth, autonomy, individual choice, individual differences, and freedom.

- Content and procedure in education should not be separated from aims--procedures used can also be a form of content.
- Because there are multiple criteria it is likely that they may receive a different emphasis at different periods of time. This is also another reason why statements of aims seem so necessary in education.

o Wesbury, I. and Wilkof, N. J. (Eds.). (1978). Joseph J. Schwab--Science, curriculum, and liberal education. Chicago: University of Chicago Press.

Selected Quotations

> Science, like practical knowledge, is fluid and dynamic . . . Since scientific knowledge is couched in terms corresponding neither to "reality" nor to immediate human needs, we need to reflect on the relations of its conclusions to its forms and evidence in order even to know what it is about. Its conclusions make sense only in the light of the way they were formed. And the use of the conclusions presupposes reflection which transforms both the forms of scientific thought and the requirements of felt problems so that the two can be brought together. (pp. 177-178)

> Learning, for Dewey, is active participation in the pragmatic rhetoric--the recovery and test of meaning. Hence, the effective "learning situation" is not the one which leads by the quickest, most comfortable route to mastered habit and attitude, used precept and applied knowledge, but the one which is provocative of reflection, experiment, and revision. (p. 173)

> Dewey sought, in education, the mutuality which joined society and separate persons. Development of the potentialities special to each person, yes. But so that they be put in the service of society as well as in the service of the self. And development, too, of the common competencies which serve society, but so that association may better serve the individual while individuals serve to improve the quality of association. Neither automatic conformity to socially accepted norms nor centrifugal scattering into privacies can be the useful rule. Where all conform, none question. There is no inquiry. Where belligerent individualism is the rule, we lose the fruits which require collaboration and, more important, lose the satisfaction of sharing, itself. (p. 181)

> Defensible educational thought must take account of four commonplaces of equal rank: the learner, the teacher, the milieu, and the subject matter. None of these can be omitted without omitting a vital factor in educational thought and practice. No one of them may be allowed to dominate the deliberation unless that domination is conscious and capable of defense in terms of the circumstances. Despite the educational bandwagons which bear witness to the

contrary, neither child nor society nor subject matters nor teachers are the proper center of curriculum. Indeed, the short merry life of many bandwagon curriculums often has arisen from just such overemphases: the child-centered curriculums of Progressivism; the social-change-centered curriculums of the 1930s; the subject-matter-centered curriculums of recent reforms; the teacher-centered curriculums which may arise from unionism. (p. 371-372)

o Herbart, J. R. (1913). Outlines of educational doctrine. (A. F. Lange, Trans.). London: MacMillan.

Selected Quotations

Hence training and instruction have each to be directed against the springing up of illusive longings and toward a true picture of the blessings and burdens of various social classes and professions. (p. 27)

Children must be kept employed at all events, because idleness leads to misbehavior and lawlessness. (p. 39)

Major Points

- The purposes of education are correlated with its means, which leads to an emphasis on "concrete experience," and that of empirical justification over "rational psychology."
- Herbart's assumption is that pupils are educable and plastic, with education dependent on the nature of its interaction with students.
- Education's major purposes include: (a) citizenship, (b) development of virtue (i.e., the ethical ability of one to pass judgment on the quality of one's own moral character, (c) physical and mental health, (d) being of benefit to society, (e) perfection, although with humility, and (f) for children to experience the same constraints placed on adults in society.
- Education should act to thwart children's impulsive nature, and to keep them busy at all times. By keeping them mentally occupied, children can be controlled for their own good.

o Dearden, R. F. (1975). Needs in education (Chapter 3), Education as a process of growth (Chapter 4), Happiness and education (Chapter 6). In R. F. Dearden, P. H. Hirst, & R. S. Peters (Eds.), A critique of current education aims: Part I of education and the development of reason. Boston: Routledge & Kegan Paul.

Selected Quotations

> Need is a normative concept and, as such, needs are not to be determined just by research into what is observably the case. (p. 50)
>
> They must therefore be allowed to choose for themselves as seems best to them, and not be directed by neo-Platonists or neo-Aristotelians into some prejudged view of the good life. (p. 108)

Major Points

- The concept of "need" is being heavily used in education. There are three criteria to determine a need:
  1. There is a norm or standard.
  2. The norm is not being met.
  3. What is said to be needed is really relevant to achieving the norm.

  Questions of need have an empirical basis, but ultimately cannot be settled empirically.
- There are difficulties in regarding education as a process of growth. The European biological version does not do explicit enough justice to the greater knowledge of the adults who are teachers and parents. Growth theories are often naive in their notions of environment, experience, stimulation and choice. The growth theorists have some things right: individual differences exist between students at different ages and stages and educational activities should be satisfying and worthwhile to the individual.
- The goal of education cannot simply be happiness. There are other goals which may challenge or even run counter to student happiness.

o Kumarin, V. (1976). Anton Makarenko: His life and in his work in education (K. Judelson, Trans.). USSR.

Selected Quotations

> Labour as a step towards concern for one's fellow men should replace the concept of labour as mere work. (p. 30)
>
> From each according to his ability, to each according to his work.
>
> It emerged that the teaching process in school and industrial production went a long way to moulding character, because they did

away with that dividing line between manual and brain work and that together they produced highly skilled men and women. (p. 382)

Major Points

- A teacher's role is to convey knowledge, forge a student's character and identify a student's needs and abilities.
- There is a need to pay more attention to the child as a whole.
- Labor is more than mere work.
- The goals of education should include: fostering specific traits in children, citizenship, and preparation for work.
- Foundational assumptions Kumarin made were: (a) all people start with an equal capacity for work, (b) differing work capacities are a result of experiences and education, and (c) work skills mold character and eliminate hand/brain distinctions.

o Friere, P. (1972). Pedagogy of the oppressed. New York: Herder & Herder.

o Friere, P. (1973). Education for critical consciousness. New York: Continuum Press.

Selected Quotations

> In the banking concept of education, knowledge is a gift bestowed by those who consider themselves knowledgeable upon those whom they consider to know nothing. Projecting an absolute ignorance onto others, a characteristic of the ideology of oppression, negates education and knowledge as processes of inquiry. (1972, p. 58)
>
> How can educator and educatee possibly be put on a par in the search for knowledge if it is the former who already knows? How can the educatee be said to be capable of knowing if his or her role is to learn from the educator? These observations, which are basically objections, cannot conceal the preconceptions of the person who makes them. They always originate with those who consider themselves to be the possessors of wisdom face-to-face with the educatees who are regarded as ignorant. Education through dialogue and communication is seen by them in their misinterpretation (whether erroneous or idealogical) as a threat. (1973, pp. 149-150)

Major Points:

- Friere criticizes traditional education for its assumption that the teacher knows everything and the students know nothing.
- Traditional education leads to passivity on the part of students and a

compulsivity on the part of the teacher, who believes that s/he must constantly be teaching, talking, choosing and unassailable in respect to the content of the curriculum.

- Conversely, students in traditional classrooms believe that it is their role to be compliant, quiet and deferent, in short passive.

o Vincent, A. W., & George, M. (1982). Development and self-identity: Hegel's concept of education. Educational Theory, 32 (3,4), 131-141.

Selected Quotations

> School education cannot be reduced to a mere pandering to the child's subjective wishes. (p. 135)
>
> School education is concerned to present what is important for the child to learn, an importance which he will for the present be obliged to take on trust. (p. 135)
>
> The first function of the school is, therefore, to act as a counterbalance to the particularity of each child, and to develop in him a capacity to share in the life of his society, as a free citizen whose inward disposition has been brought into harmony with the collective life of his society. (p. 137)
>
> This keeping of the soul, this alone is what education means. The more educated a man is, the less there is apparent in his behavior, anything peculiar only to him, anything that is merely contingent. (p. 140)

Major Points

- Education helps the child "burst the shell of its outer existence and become . . . itself" (p. 134).
- Education complements the importance and purpose of the family in a child's development.
- The purpose of education exists between the extreme of the child being unduly subservient or being completely independent of societal constraints. When the individual is no longer identified by personal idiosyncrasies and eccentricities, his/her consciousness as characterized by universality and rationality manifests the features of "the General Mind."
- Through education, the individual's capricious desires are overcome by rational thought, making it possible to find true freedom, identity, and his/her "true" self (the self which is necessary for the development and

maintenance of society).

- Hegel assumed the existence of a rational universal within children, brought out by the socialization process involving education and the family, while the child's feelings of egocentrism were being broken down.
- For children to develop willpower, discipline and "punishment" were necessary. Hegel had no sympathy for Rousseau's beliefs of innate goodness nor would he have sympathized with an undemocratic, predetermined educational structure.

Implications for Purpose and Process of Vocational Education

During examination of the major points made by the selected writers, the discussion focused upon identifying commonalities in the proposed purposes of education. The authors were selected in a manner designed to represent a range of viewpoints, and consequently this synthesis of the study group's discussion may reflect the participant's viewpoints and assumptions to a greater degree than it synthesizes a selected author's positions. It is obvious but worth noting that the substantive issues of previous sections have raised many of the same issues rooted in the continuing debate on what is the purpose of education.

A limited number of "purpose of education" commonalities or themes were identified. First, a purpose of education is to help individuals understand their relationship to society and how they impact society. Education should help persons see themselves more clearly by developing knowledge of the society and world in which they function and of their moral and ethical responsibilities to that society and the greater society. While the educational process is focused upon the individual person who benefits, society is viewed as the ultimate beneficiary of the individual's education. Education cannot avoid the responsibility of socializing the persons involved. Saturating the student with a spirit of service may be viewed as a subset of this specific purpose.

Second, development of an individual's intrinsic value for knowledge and thinking as ends in themselves versus a means to an end is viewed as a purpose of education. The individual should develop an appreciation for ideas, art, music, scientific information, and so on without the criteria that they are a means to other ends. Education should develop a sense of the value of knowing and thinking and of being able to know and think.

Third, a purpose of education is to involve individuals in the process of education. The process activities or methods proposed as most appropriate are varied and related to the purpose or aim being addressed. The interaction of process with content is recognized.

Fourth, since knowledge is dynamic and forever emerging, a purpose of education is to develop the ability to learn. The educated person is viewed as having skills of inquiry, experimentation, revision, reflection, and so on.

Fifth, a purpose of education is to stimulate and guide the self-development of students. The learners must be encouraged and assisted in becoming self-directive in their own education.

Sixth, the creation of an understanding of how things fit together, came to be, and for what reasons, is a purpose of education. The development of a narrow specialized knowledge base is insufficient as a purpose of education. A particularly relevant, related issue is the relationship of training and education. Some authors view training as a subset of education, while others view it as separate from education. The latter group of individuals tend to hold the traditional "liberal education" perspective and are criticized as having an elitist view of history.

Summary

Given the study group's assumption that vocational education is a part of education in the secondary school, a number of implications for the purpose of vocational education in the secondary schools can be drawn from the purposes of education.

1. Professionals involved in vocational education in the secondary schools need to recognize that the skill training versus education debate forces a dichotomy in what is perhaps more realistically viewed as a process continuum. Unique activities within different content frameworks do not necessarily signify conflict in ultimate purposes.

2. Occupational skills should not be taught without attention to related knowledge and to an understanding of interrelationships with society, particularly the impacts of the skill upon individuals and society.

3. The content of vocational education must meet the criteria for the content of education. In other words, the content of vocational education must address the purposes of education, and vocational education personnel must demonstrate how their offerings contribute to accomplishing the purposes of the comprehensive secondary schools curriculum.

4. Vocational education legislation has forced or at least influenced a very narrow view of the justification for vocational education in the secondary schools, namely job placement. The purposes of vocational education in the secondary shcool must include but also go beyond mere job placement.

5. The purposes of vocational education in the secondary school will change over time, as the work content and context changes. Statements of purpose frequently focus upon the currently neglected aspects.

6. Purpose statements specify the ideal, not the present situation, and are often rejected as unrealistic.

7. There are risks when the abstract statements of purpose for education are applied to vocational education: misinterpretation, loss of current support groups and loss of identity.

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Part VI

Implications of Future Economic, Social, and Technological Trends

The final thrust of the study group in this phase of the study was to probe writings on the future related to broad economic, social, and technological trends for their implications for work, education, and specifically the purpose and process of vocational education in the secondary schools. It was decided to look at original works on the future, rather than interpretations of these works, in terms of their implications for work and education. The reasons for this stemmed from a need to draw implications based on the unique purpose of the study group.

The strategy used to develop a list of potential authors involved consultation with a professor teaching education futures, a prominent futurist often asked to make presentations at educational meetings, and the staff members of the World Future Society. A desired characteristic of the list of authors was that they be representative of both current and popular works on the future as well as those that were older but had survived the "test of time." Works which mainly addressed the process of forecasting or predicting the future were excluded.

From this list, members of the study group selected authors to read and analyze based on their own interests. Not all authors were selected for reading. Quotations and major points from those publications selected follow in order of publication date, starting with the most recent.

Selected Quotations and Major Points

- Naisbitt, J. (1982). Megatrends. New York: Warner Books.

  Selected Quotations

  > We need to balance technology with the spiritual demands of our human nature. (p. 40)
  >
  > The more high technology around us, the more the need for human touch. (p. 53)
  >
  > It is too late to recapture our industrial supremacy because we are no longer an industrial economy. (p. 56)

Major Points

- American society is restructuring in 10 ways which will result in major changes in our lives. It is moving from:

  1. An industrial society to an information society. This trend began in the 1950s. The years 1956 and 1957 marked the end of the industrial era. Most Americans today spend time creating, processing, or distributing information. The new source of power is information rather than money.

  2. Forced technology to high tech and high touch.

  3. A national economy to a world economy. The Third World countries are competing for industrial jobs and have the labor force to do it. The trend will be for countries to share in production. By developing the Third World, the industrial countries will be assured of adequate markets for their goods. Globalization of economies will revive cultural and linguistic assertiveness. United States citizens should become trilingual--fluent in English, Spanish, and computer. World peace may result from world trade.

  4. Short-term to long-term planning.

  5. Centralized structures to decentralization. The United States is rebuilding from the bottom up, becoming a more diverse society, and rejecting the idea of a homogeneous nation. Decentralization is consistent with the information society. An information business can operate anywhere. Smaller local units have the power. Decentralization is evident in the move from cities to the rural areas.

  6. Institutional help to a self-help society. There has been a shift from big to small firms. The trend is toward self-help in crime prevention to consumerism.

  7. A representative democracy to participating democracy. The communication revolution has created a well-educated electorate. The two-party system is giving way to independents. Numerous new parties are forming. People are realizing their power through initiatives and referendums.

  8. Expecting hierarchies to meet our needs to the use of networking. Hierarchies failed to solve society's problems. People began to talk to each other, thus networking began. It offers the horizontal link. Networks are part of the need for high touch. Networking is affecting the way corporations function. Networking provides for the nurturing of one another.

  9. Population shift from growth in the North to growth in the South. People are moving to the West, the Southwest, and Florida as the

result of stagnation of industries in the North and growth and development of new industries in the Southwest. The West has better educated people.

10. Either/or options to multiple options. There is a shift from the family to the individual. Employment options are diverse. We encourage diversity.

- Capra, F. (1981). The turning point. New York: Simon Schuster.

Selected Quotations

> Our science and technology are based on the seventeenth century belief that an understanding of nature implies domination of nature by "man." Combined with the mechanistic model of the universe . . . and excessive emphasis on linear thinking, this attitude has produced a technology that is unhealthy and inhuman; a technology in which the natural, organic habitat of complex human beings is replaced by a simplified, synthetic, and prefabricated environment. This technology is aimed at control, mass production, and standardization, and is subjected, most of the time, to centralized management that pursues the illusion of indefinite growth. (p. 44)
>
> Quantum theory has shown us that the world cannot be analyzed into independently existing isolated elements. The notion of separate parts--like atoms, or subatomic particles--is an idealization with only approximate validity; these parts are not connected by causal laws in the classical sense. (p. 85)
>
> From the systems point of view, both determinism and freedom are relative concepts. To the extent that a system is autonomous from its environment it is free; to the extent that it depends on it through continuous interaction, its activity will be shaped by environmental influences. The relative autonomy of organisms usually increases with their complexity, and it reaches its culmination in human beings. (p. 270)
>
> By developing our capacity for abstract thinking at such a rapid pace, we seem to have lost the important ability to ritualize social conflicts . . . we have lost touch with the realities of life and have become the only creatures who often fail to cooperate with and even kill their own kind. (p. 299)
>
> Decline in a culture occurs when a culture has become too rigid--in its technologies, ideas, or social organization--to meet the challenge of changing conditions. This loss of flexibility is accompanied by a general loss of harmony, leading to the outbreak of social discord and disruption. (p. 418)

Major Points

- Purpose is "to provide a coherent conceptual framework to help (persons involved in social movements) recognize the commonality of their aims" (p. 16)
- The world today is so interconnected that an ecological perspective is needed if it is to be adequately understood. This would necessarily entail a paradigm shift.
- World conditions are now in a state of profound crisis that is without precedent and which extends to every aspect of our lives. Discipline-oriented "experts" are unable to comprehend the problems, to say nothing of the solution.
- Among the transitions that are involved are: (a) decline of patriarchy, (b) decline of the fossil-fuel age, and (c) paradigm shift from a sensate value system (where matter is reality, ethical values are relative) to one that is unknown.
- Presently, our culture is dominated by rational thought; only scientific knowledge is acceptable. Intuitive knowledge is viewed as less credible.
- Patterns prevalent in society are those of power, control, and domination of others by force.
- Theorists who have contributed to the view of the world as a machine include: Copernicus, Galileo, Bacon, Descartes, Newton, and Locke. This view was modifed by the work of Darwin (evolution); Maxwell (electrodynamics); Einstein (relativity); and Planch, Bohr, Pauli, and others (quantum theory). This eventually has led to a shift from the study of objects to the study of relationships/interconnections that define the universe. The world view of modern physics is a system view.
- The effect of reductionistic thinking has been that "our culture has beocme progressively fragmented, and developed technologies, institutions and life styles that are profoundly unhealthy" (p. 234).
- A systems view looks at the world as an integrated whole, emphasizing the organization and relationships involved. The systems are characterized as dynamic, flexible, and capable of self-organization which leads to self-renewal and self-transcendence.

o Yankelovich, D. (1981). New rules: Searching for self-fulfillment in a world turned upside down. New York: Random House.

Selected Quotations

> In any culture there will be more continuity than change; ordinarily, cultural patterns persist for long periods of time. (p. xvii)
>
> Any viable social ethic has real work to do: it binds the individual to the society; it synchronizes society's goals with those of each person; it holds society together and keeps it from degenerating into a chaos of competing interests. (p. 246)
>
> A new social ethic is gradually starting to take shape. I call it an ethic of commitment. (p. 12)
>
> There are two distinct steps required to develop an ethic of commitment. One of them lies wholly within each person's control, for it involves nothing more--or less--than a change in the strategy of self-fulfillment. The change involves abandoning the calculus of inner needs and its assumptions that needs are synonymous with desires, that the more desires filled the better and that this pursuit is a morally worthy one. Indeed, the new strategy builds on these premises: that the self is not synonymous with the sum of one's desires; that self-fulfillment requires commitments that endure over long periods of time and that the expressive and sacred can only be realized through a web of shared meanings that transcend the self-conceived as an isolated physical object. (p. 256)
>
> (The second step is that) people must form commitments that advance the well-being of the society as well as themselves. (p. 259)
>
> A new ethic of commitment would help to preserve certain older values Americans cherish, and at the same time safeguard important new ones won in the rebellion against self-denial. The older values Americans wish to preserve include political freedom; the use of that freedom to secure material well-being through one's own efforts; the comforts and consolations of family life; a place of respectability in the community; and a pride in America's unique role in history. The new values embrace greater automony for both men and women; more freedom to choose one's own life style; life as an adventure as well as an economic chore; leisure; self-expression and creativity; a greater concern for past and future; a more caring attitude; and a larger place for the awe, mystery and sacredness of life. (p. 263)

Major Points

- There is a change in American culture from a rule of self-denial and duty to self to an "ethic of commitment" involving a concern for others as well

as self.

- We must become accustomed to shaping the country's economic and political fortunes through changing social values rather than technology, economics or politics.
- New terms coined:

    1. Giving/getting compact--unwritten, implicit rules governing what we give in marriage, family, work, community and what we expect in return.

    2. Sacred/expressive aspects of life--intrinsically satisfying, opposite of instrumental.

    3. Ethic of commitment--a new form of self-fulfillment beyond the ethic of duty to self or self-denial; involves fulfillment through both concern for self and caring for other people; stimulates ideas.

    4. Double seeing--able to see our attempts at self-fulfillment as personal, historical, and cultural processes.

    5. Psychoculture--web of meanings a society holds in common in the consciousness.

- Society has placed excessive emphasis on the instrumental value of objects and people. It needs to shift emphasis to expressive/sacred values (i.e., civilize the instrumental).
- Problems of past attempts at self-actualization were: (a) assumption of unlimited economic affluence and (b) actualization as a "me first" outlook.
- Must shift to fulfillment through connectedness to the world: people, institutions, objects, ideas, places, nature, projects, experiments, adventures, and callings. This shift is now in the embryotic stage.
- Change will require leadership from institutions such as government, mass media, education, business, and labor.
- New rules will stimulate doing more for ourselves (rather than depending on experts), breaking up rigid segmentation (e.g., old vs. young), and encouraging people to channel their creativity away from themselves back to concrete tasks needing to be done--new energy sources, new industries, rebuilding infrastructure, creating caring communities.

o Toffler, A. (1980). The third wave. New York: William Morrow & Co.

Selected Quotations

We glimpse here instead the emergence of what might be called a "practopia"--neither the best nor the worst of all possible worlds. (p. 357) . . . In short, a practopia offers a positive, even a revolutionary alternative, yet lies within the range of the realistically attainable. (p. 358)

To begin with, many of today's changes are not independent of one another. Nor are they random . . . They are, in fact, parts of a much larger phenonemon: the death of industrialism and the rise of a new civilization. (p. 2)

The Third Wave brings with it a genuinely new way of life . . . . It could--with some intelligent help from us--turn out to be the first truly humane civilization in recorded history. (p. 10)

Today all the high-technology nations are reeling from the collision between the Third Wave and the obsolete, encrusted economics and institutions of the Second (p. 14) . . . . When a society is struck by two or more giant waves of change, and none is yet clearly dominant, the image of the future is fractured (p. 15) . . . . The conflict between Second and Third Wave groupings is, in fact, the central political tension cutting through our society today. (p. 17)

Once we realize that a bitter struggle is now raging between those who seek to preserve industrialism and those who seek to supplement it, we have a powerful key to understanding the world. (p. 18)

What we see . . . is a civilization . . . based on a widening cleavage between production and consumption . . . managed by a set of elites whose task it was to integrate the whole. (p. 78)

The greater the divorce of producer from consumer--in time, in space, and in social and psychic distance--the more the market . . . came to dominate social reality. (p. 117)

Second Wave civilization placed an extremely heavy emphasis on our ability to dismantle problems into their components; it rewarded us less often for the ability to put the pieces back together again . . . . Today I believe we stand on the edge of a new age of synthesis . . . . We are likely to see a return to large-scale thinking to general theory, to the putting of the pieces back together again. (p. 129)

In fact, integrating young people into the electronic cottage may offer the only real solution to the problems of high youth unemployment. (p. 220)

During Second Wave civilization, machine synchronization shackled the human to the machine's capabilities and imprisoned all of social life in a common frame . . . . Now, as machine synchronization grows more precise, humans, instead of being imprisoned, are progressively freed. (p. 253)

There are movements aimed at literally turning back the clock--like the back-to-basics movement in United States schools. Legitimately outraged by the disaster in mass education, it does not recognize that a de-massified society calls for new educational strategies, but seeks instead to restore and enforce Second Wave uniformity in the schools. Nevertheless, all these attempts to achieve uniformity are essentially the rear-guard actions of a spent civilization. (p. 256)

Today we are beginning to realize that neither big nor small is beautiful, but that appropriate scale, and the intelligent meshing of both big and small is most beautiful of all. (p. 261)

The Third Wave challenges the Second Wave notion that education necessarily takes place in a classroom. Today, we need to combine learning with work, political struggle, community service, and even play. (p. 346)

Major Points

- Society can be conceptualized as having consisted of different waves. Two have already occurred, with the third now forming. The first developed as a result of the beginning of humanity, the second was due to the industrial revolution, but the third, now in its developmental process, cannot be attributed to a particular "cause."
- First Wave society was an agricultural society. Life was organized around villages, with a simple division of labor, a decentralized economy, and energy from renewable sources.
- Second Wave society began with the Industrial Revolution (1650-1750) and has continued to the present. Modeled after the factory system, synchronization, standardization, and maximization were implicit in all its institutions. Its energy was derived primarily from non-renewable, fossil fuels, its central social institution was the nuclear family, with a differentiation between production and consumption, although the home, and the housewife within it, retained almost a continuation of First Wave society.
- Third Wave society, is a new, qualitatively different society. Arising from the self-destruction of Second Wave society. it will probably have:

1. A diversified technological base.
2. A wide variety of energy resources.
3. Information as its basic raw material.
4. Reliance on interactive media.
5. No central social institution, such as the family (but families will be significant, although in alternative types of nuclear configurations).
6. Less brutalizing, more decision-centered work.
7. Factories outside the urban metropolis.
8. Much work and education in the home.
9. Less differentiation between production and consumption.
10. Reduced role for the nation state and the "democratic" political system.
11. More community, structure, and meaning for people's lives.

- Two aspects which will characterize all of Third Wave society's developments are: (a) higher diversity (de-massification) and (b) acceleration of change. These two aspects will shape all the preceding developments, making Third Wave society one in which there is increased emphasis on individual needs and concerns and in which adaptations to change are inherent within institutions.

o Heilbroner, R. L. (1974). An inquiry into the human prospect. New York: W. W. Norton.

Selected Quotations

> I call attention to the situation within the industrial socialist world to stress the surprising similarity of outcomes between two otherwise widely differing systems. Each has been marked with serious operational difficulties; each has overcome these difficulties with economic growth. Each has succeeded in raising its level of material consumption; each has been unable to produce a climate of social satisfaction. This leads to the suggestion that common elements of great importance affect the adaptability of both systems to the challenges of the human prospect. (p. 75)
>
> It appears logical to conclude that socialism, with its direct commitment to a planned economy and with its freedom from the ideological blockages of private property, could manage the adaptation of an industrial society to a stationary equilibrium much more readily than capitalism. (p. 91)

Our lengthy analysis of capitalism and Western socialism has led to one principal conclusion: the dangers of the human prospect seem likely to affect the two systems differently in the short run, but surprisingly alike over a longer time horizon. (p. 99)

Major Points

- The author identified three major challenges to the future survival of humankind:

    1. The alarming increase in population growth of the underdeveloped countries due to their decreased death rates and increased fertility rates.

    2. The danger from the increased availability of nuclear weapons and their potential for irreparable damage as contrasted with a much more restricted and more easily repaired damage from conventional weapons.

    3. The threat to humankind from environmental deterioration caused by the increasing burden on resources and ecological limits which have been stressed as a result of industrial society.

- The external challenges to humankind's existence are created by an imbalance in our ability to match technology with adequate control mechanisms.
- The critical weakness of capitalistic society may stem from its stress on personal achievement, relentless pressures for advancement, and the acquisitive drive which is symptomatic of our culture. All of these may be factors underlying much of the social malaise in our society today.
- Despite the striking success of socialist economic systems, socialism has been unable to attain its generally hoped for level of communal spirit.
- Industrial civilization achieves its success by imposing values which are common and necessary to both capitalistic and socialistic societies.
- Capitalistic nations will be facing increased pressures for the distribution of resources among less developed countries.
- Capitalistic nations may also face increased pressure for income distribution within their own societies. To the extent that capitalistic nations adopt authoritarian measures for dealing with social discontent, their direction of change may be described as a movement toward socialism.
- It may be easier for a socialistic society to manage the adaptation of a post-industrial society toward a stationary equilibrium than for a capitalistic society.

- Outside pressures tend to push nations into directions of authority and not away from it.
- It may only be possible for humankind to meet the coming crisis under governments which can command obedience far more effectively than is possible under democratic ones.
- There does not seem to be any possibility in the character traits of humankind being modified rapidly enough to bring about a peaceful reorganized world community.

o Gardner, J. W. (1963). Self-renewal. New York: Harper & Row.

Selected Quotations

> Everyone does not have to agree in order for the concensus to be effective. It is only necessary that there be rough agreement among a substantial proportion of those men and women whose intelligence, vigor, awareness and sense of responsibility mark them as shapers of the community purpose. (p. 117)
>
> In the ever-renewing society what matures is a system or framework within which continuous innovation, renewal and rebirth can occur. (p. 5)
>
> The only stability possible is stability in motion. (p. 7)

Major Points

- Society needs innovators to deal with unpredicted problems. Otherwise stagnancy brings downfall.
- General pressures are against innovation since it requires opposing the status quo and the powers that give life to the status quo.
- Individuals also do not tend to be innovative because (a) it requires failures, and people are afraid to risk; and (b) schooling works against creativity for the usual reasons (e.g., poor teachers) and because creativity is hard to teach.
- We need to promote creativity among people. At least we should not put obstacles in the way so creativity cannot come forth.
- Society benefits from innovative reformers. Revolutionaries may seem like reformers, but actually they are born from anger at a particular problem and when they've overcome it, they become dogmatic themselves.
- Innovators tend to be generalists, not specialists.

After identifying the major points of the preceding authors, the discussion of the study group was directed to a synthesis of (a) future economic, social, and technological trends; and (b) implications for work, education, and more specifically, the purpose of vocational education in the secondary school. Twelve trends were identified.

1. Demassification of society. This is the term Toffler used to describe a change in which society loses its pervasive "industrial mentality" of mass production acquired with the Industrial Revolution. Rather than business and industry trying to reach and serve all the people with one particular message, product, or service, Toffler describes a future in which there are different messages, products, or services for different groups or individuals.

2. Decentralization. Facilitated by technological innovation, decentralization involves the making of decisions at more lower/local levels, with communication networks between levels and individuals being necessary.

3. Imbalance in matching technological innovation. There is an increasing lag by social and economic institutions in response to the changes caused by the accelerating rate of technological innovations.

4. Population growth. While the growth in population of the developing countries in the "North" has become almost negligible, the rate for the developing countries of the South has shown a steady increase. An example of this is Mexico City, already the third most populous city in the world, which will double its population before 2000.

5. Nuclear weapons. As tensions and technological accomplishments continue to increase, nuclear weapons--in addition to becoming more numerous--become more likely to be acquired by terrorists and used for extortion. There is also the possibility that their increased presence makes a global holocaust more probable.

6. Environmental deterioration. With increasing demand for natural resources and the desire to maintain existing standards of living, which also depend on natural resources, both the environment and the systems for distribution of resources are being overtaxed.

7. Femininization of the work force. Women, who comprise approximately half the population, are rapidly approaching and exceeding that level as members

of the working population.

8. Holistic/global thought. A global perspective is used rather than one in which priority is given to local concerns when considering issues and needs.

9. Long-term planning. There is a transition toward planning which includes projections and scenarios for the distant future. Furthermore, once the scenarios are conceived, they can become the goals themselves.

10. Multiple options. This trend, facilitated by technological innovation, reflects the fact that decision makers use multiple options rather than an either/or mode.

11. Ethic of commitment. Rather than a "me first," self-centered attitude, this trend, paralleling global thought, involves an approach to life and work which is interdependent with others; we succeed as others succeed.

12. Importance of the South. Countries of the South are important because their population is increasing so rapidly without adequate resources and because they are ideal manufacturing/assembly sites for high tech products.

In describing these twelve trends, two facts are prominent and merit further consideration. First is the fact that the trends have a high degree of integration. It is hard to consider one trend without also considering many of the others. For example, the trend of population growth is very closely related to technological innovation, the importance of the South, global thought, and the overburdened resources which come with environmental deterioration. The reason for indicating the high degree of relatedness among the trends is to point out that although other trends could be listed, they are likely to be related to those already identified and their subsequent implications would not be all together unique.

The second significant point about the trends is what they mean or imply about the future of society and culture. Although this point may not be as obvious when considering each trend individually, it becomes more evident when they are considered as a whole. The trends indicate the beginning of a monumental change in the lives of people, a paradigm shift that is at least as significant as the changes which resulted from the Industrial Revolution. Possibly by the end of the current century, these changes will be experienced. Will people be adequately prepared?

Implications

Being cognizant of the trends described in the literature, implications were formulated for work, education, and the purpose of vocational education in the secondary school. These implications represent the study group's effort to apply its understanding of the trends to each of these topics and project the situation which might emerge.

Work. Because of the trends previously cited, work in the future will need to become more meaningful to meet human needs and expectations. Primary among these needs and expectations will be the desire to personally benefit from work and experience a feeling of self-renewal. This implication for work was formulated to a great extent because of the trend of technological innovation. Because of the increased rate of technological innovation, there will be a similar increase of expectations among people not to have to perform tasks which can be performed technologically.

In the work situation of the future there will also be an increased need for workers to think quickly and creatively as they become responsible for more important decisions. In a system of high tech, short run, highly specific manufacturing, creativity and quick intelligent thought will be much more important than dependability and consistency, the former criteria for good workers.

A third implication for future work is that the location and time for work will also change. In a society of rapid technological innovation in communication and manufacturing and where there is a concern for employee welfare, alternative work schedules and sites will become more evident. When workers no longer need to be physically present in a work place or when technological changes reduce restrictions on working hours, it is conceivable that people who are working in an office 9 to 5 today could be performing similar activities at home and at whatever time they choose.

Education. A primary implication of the identified trends for education is increased use of technological innovations in instruction. Another major implication in education is the need for continued educational experiences throughout one's life. Both of these implications are a result of living in a society which is experiencing an accelerated rate of technological innovation.

Another possible outcome of these developments with significant implication for education may be a diminished relative importance for traditional schooling,

especially secondary schooling. With the need for continued education throughout one's lifetime to keep up with the changing technology, there may be a significantly diminished need for actual schooling. However, alternative, postsecondary education may need to be expanded to serve a largely adult population. Although the need for education will increase, it will be for education which will occur outside of traditional secondary school institutions.

A second set of educational implications exists in response to the trends of holistic thought and ethic of commitment. Because of these trends, learning which encourages a holistic perspective will need to evolve; such learning must include an examination of values, motivation, meaning, and self-actualization.

In what is referred to as the intelligent environment, education's focus will be changed. Rather than concentrate primarily on literacy, an emphasis will be given to information. With technical innovations, there will be need for students to know how to actually spell and read, but greater need for them to know how to find information.

An implication of somewhat less magnitude than those stated above, although still significant, is the nature of curriculum content. Because of the increasing importance of Third World countries, education in this hemisphere will need to provide increased skills in Spanish. Similarly, due to demassification, decentralization, the increased rate of technological innovation, and a pervasive service economy, it will be more likely that individuals will have some involvement in business. The small efficient high tech service business could become the most common firm, a result calling for increased business management emphasis in educational curricula.

Purpose of vocational education in the secondary school. The major implications of these trends for the purpose of vocational education are difficult to extract. Due to the fluid nature of future society, it may be that the purpose of vocational education in the secondary school will be to either focus primarily on job-specific skills or to completely ignore them. In a situation where individuals are existing with a constantly accelerating rate of technological innovation, the "half-life" of knowledge becomes shorter, yet the call for life-long education becomes more common. Secondary vocational education may need to concentrate on preparing its students for specific occupations with the rationale that as they shift occupations, new educational opportunities will be available. Meanwhile, they will be productive, working individuals.

A contending possibility is that there will be a need to significantly reduce job-specific skills in secondary vocational education. This may be a necessity due to the increasing rate of technological innovation, along with those trends addressing the nature and relevance of work to an individual's self-development. The rationale for this implication is that by focusing on job-specific skills, there is a loss of ability to address the nature and meaning of work and its status in society. There is also evidence that by focusing on job-specific skills an individual is prematurely "tracked" to certain positions. Rather than focus on job-specific skills, this trend suggests stressing generalizable work skills which will later be supplemented with specific skills training by an employer or postsecondary program. It is felt that adolescents will better develop an overall understanding of what it means to work in a society by not concentrating only on job-specific skills development, but rather on more generalizable skills which are common to most of the work that will exist in the adolescent's lifetime. The adolescent will be better off when s/he understands that change in work will occur and learns ways to prepare and adapt to it rather than to prepare for a specific job. Specific job preparation is viewed as erroneously assuming that work experience will develop an understanding of the impact of technological innovation on the individual and society.

Another major implication for the purpose of vocational education, no matter which of the preceding alternative purposes is chosen, is the increasing need to foster vocational development among students. In a society experiencing changes of the magnitude projected and where work will be more than just a repetitive task, it will be crucial that students have definite ideas of the direction of their careers. Students completing secondary vocational programs will need to have a realistic understanding of the nature of various occupations including their requirements, responsibilities and opportunities. This needs to be accomplished through either job-skill or generalizable work skill emphasis.

A fourth implication impacting both skill-specific or generalizable-skill secondary vocational programs is that these programs will increasingly need to provide highly realistic simulations of actual on site experinces. Students will need a greater knowledge base and much of that will only be attained by the application of theory to practice, with subsequent periods of analysis to reinforce an understanding of the experience.

Summary

From a review of the major points of several futuristic writers, 12 economic, social and technological trends were identified: (a) demassification of society, (b) decentralization, (c) imbalance in matching technological innovation, (d) population growth, (e) nuclear weapons, (f) environmental deterioration, (g) feminization of the work force, (h) holistic thought, (i) long-term planning, (j) multiple options, (k) commitment, and (l) importance of the South. These trends lead to certain implications for work, education, and the purpose of vocational education in the secondary school. Implications for work included a need for work to become more meaningful for those performing it, a need for workers to think quickly and creatively, and a need to deal with the fact that the traditional time and location of work may change significantly. For education, the result of the trends identified forecast an increased presence of technology, the diminished relative importance of secondary schooling, and a different curriculum focus.

The implications for the purpose of vocational education in the secondary school were not as explicit. Alternatives were hypothesized. It seems very likely that purpose will evolve from the need for a specific skill orientation, greater understanding of the nature and meaning of work in a changing society and increased ability to shift occupations.

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Part VII

Towards a Purpose Statement for Vocational Education in the Secondary School

What should be the purpose of vocational education in the secondary school? The question is not easy to address, and even more difficult to answer. At the Minnesota Research and Development Center for Vocational Education, a study group of faculty and students wrestled with the issues involved in dealing with this question for more than a year in an effort to develop a response that would be appropriate for a changing society and a complex future. Much was accomplished as the examination probed deeply into the implications of purpose, but what evolved was a place to begin, a marking point from which further discussion could be launched.

This part of the report attempts to portray the essence of hours of reading and discussion. The thinking of all the participants is reflected, for the method of study used was that of concept analysis. This procedure differs from that of the first phase of the study reported in Parts 2-6, when the historical parameters and futuristic expectations described by leaders in education, vocational education, and future studies were explored. The purpose of the first phase was to come to understand the thinking of others as a foundation for developing a purpose that would serve the best interests of society well into the 21st century. In contrast, the purpose of the second phase was to examine the meanings of purpose as these relate to an emerging perspective of vocational education.

The process of concept analysis is complex and ongoing; just as children come to know the characteristics of their world and develop the meanings these characteristics have for them, coming to understand the ways that a concept can be interpreted and experienced involves a multitude of strategies and situations. Trial and error is involved, as well as reasoned thought. Emotion and the senses also play an important part. The cultural nuances attributed to certain words, rituals and values become important to discover since these reflect perspectives that influence thought. Resources used in bringing meaning to the attention of others also play a vital role. An additional element of complexity is added as the information gained by individual study and experience

is processed through the collective consciousness of persons in the group.

Concept analysis, then, is an intricate exploration of what something means. The result is more than a definition, although that may be a part. It is more than describing the assumptions and attributes involved, although that is also important. It includes uncovering the implications and subtle messages as these relate to context. In order to accomplish these aspects, the process is divergent and convergent as the need appears--divergent when it is necessary to open one's thinking to a host of possibilities, but convergent when it is critical to zero in on the essence of meaning. Like peeling away the layers of an onion to get to its heart, the depth to which a concept is explored depends on the endurance and determination of the researcher! In the project here described, the critical nature of the question was a strong motivating force for the study group members. A wide spectrum of meanings was explored for each concept, and some meanings were examined in-depth.

This part of the report begins with a discussion of the nature of purpose, followed by a description of the purposes thought to be most appropriate. Various concepts determined to be relevant to a statement of purpose for vocational education in the secondary schools are then presented. Each of the sections on concepts includes a statement of meaning(s) and a list of assumptions regarding characteristics of the concept. This preliminary information was prepared by different members of the group, and was provided to the study group members as a basis for discussion. Reactions that emerged in the group's discussion of the concept follow. They represent attempts to summarize the dialog based on transcription of audiotapes.

Because of the (a) divergent nature of the process, (b) different discussion formats that evolved as each member participated through leading the group, and (c) constraints of time, the meanings, assumptions, and reactions described in the report do not reflect formal consensus. Rather, they portray the pathways explored by the group as they carried out their examination. In many cases, certain assumptions were not explicitly addressed by the group. Discussion focused on those points or tangents thought to be most relevant as a result of dialog in the preliminary phase of the study. It was not possible to include all relevant material, yet attempts were made to consciously and fairly represent various perspectives of each of the concepts.

The process itself, because it was evolving, led to the identification of

concepts of interest midway through the study as well as at the outset. Epistemology, ethics, and aesthetics were added at that point because of their importance to the consideration of work. However, the complexity and abstractness of these ideas made it difficult to identify and examine the meanings to a similar degree. As a result, only the "outer layers" of meaning may have been revealed.

The primary concepts are presented in the following order: (a) development, (b) individual differences, (c) education, (d) vocation and (e) work. Although the remaining topics represent secondary concepts, the epistemology, aesthetics, and ethics of work are included as separate sections.

What is a Purpose?

A purpose is not the same as an impulse or a desire or an overt behavior or an ideal. According to Dewey (1938), a purpose originates when an impulse to act is obstructed and the impulse converts into a desire. A purpose is an end-view and includes a plan of action based on predicted consequences of acting under given conditions in a certain way.

The formulation of a purpose involves a process of (a) observing the context of a phenomenon; (b) becoming knowledgeable about similar situations in the past by drawing upon personal reflection and using information available from others who have had more experience; and (c) combining what is observed about a situation with what is recalled about similar situations, and then judging what that synthesis signifies.

Peters' (1973) discussion of "aims" also has been helpful for developing the study group's meaning of purpose. Peters states that a purpose suggests some difficulty in accomplishing the task and a possibility of falling short of accomplishment. A purpose is neither easy to attain nor impossible to attain. It is an ideal which, by definition, cannot be realized in practice. Accomplishment of a purpose requires concentration of attention and coordination of effort.

In summary, the study group was guided by the view that a purpose is an end-view which is arrived at by (a) understanding the context and history of a situation, (b) considering consequences likely to result from achieving a purpose, (c) realizing that considerable effort is required to attain the end-view

and full accomplishment is not assured.

Several questions arose as the study group discussed the meaning of a purpose for vocational education in the secondary school. Who has been responsible for developing "official" statements on the purpose of vocational education? What process has been used to develop such statements? Have statements on the purpose of vocational education tended to be statements of ideals rather than statements of purpose as defined here? Or, have they been statements of activities rather than statements of purpose? Have statements on the purpose of vocational education been based on a serious consideration of the current context, the history of vocational education and education, and the consequences likely to result from a purpose? Have the statements of purpose of vocational education included a plan of action based on predicted consequences of acting in a certain way under given conditions? Are statements on the purpose of vocational education actually useful? If so, to whom and how? If not, why not?

Some Statements of Purpose for Vocational Education in the Secondary School

As an approach to begin the process of examining the implications of studying the past, present, and future context for vocational education in the secondary school, study group members were asked during the course of their time together to draft individual statements of purpose for vocational education. Draft statements were shared with other study group members without discussion. This was done three different times during the project. The intent was that this exercise would cause individuals to think about the implications of what was being studied as a basis for thinking about the purpose of vocational education. By writing out these statements for others, members were forced to be explicit and to actually formulate a purpose statement. Sharing the purpose statements allowed one to see another person's perspectives in contrast to his or her own. In the last cycle of writing purpose statements, study group members were asked to define terms used in their statements and to identify which were most important to its meaning.

Statements of Purpose

The last cycle of purpose statements best illustrates the results of study group members' thoughts at the completion of readings, analysis, and discussions

reported in the previous parts of this report. For this reason, these statements are provided below along with the meaning given to key terms in them.

Purpose statement 1. The purpose of vocational education in the secondary school should be to develop in students an understanding of the meaning of work in their own lives, an understanding of how work can contribute to their full enjoyment of life, and a commitment to transforming work environments to enable full human and social development.

Meaning of key terms in statement 1. In this statement work refers to activities in which a person engages for the purpose of earning an income or facilitating the functioning of the home/family environment. The meaning of work refers to the signification and significance which the work has for an individual. Work could signify, for example, status, power, personal worth, contribution to a societal good, or expression of self. The significance of work refers to how important the various dimensions are to the individual as they shape the person's perceptions of self, others, and society. Enjoyment of life refers to the intrinsic rewards (those in which the interaction between a person and the environment is its own reward) one experiences as a result of engaging in activities. Transforming work environments to enable full human and social development refers to the reasoned, ethically defensible action people take to change work environments so that they contribute to the development of personal dignity and worth, and societal justice and democracy.

Purpose statement 2. The purpose of vocational education in the secondary schools should be to assist in the occupational development of all secondary school students. This should be accomplished through recognition of (a) the diverse needs of individuals, (b) the interactive and dialectical relationship between the student, school, family, community and the workplace, (c) the interactive and dialectical relationship between skills, knowledge, ability, attitudes and affect, and (d) the need for development of instructional strategies which are consistent with the above three assumptions.

Meaning of key terms in statement 2. Occupational development is an ongoing process whereby an individual acquires the physical, psychological, intellectual, attitudinal and motor skills necessary to adequately adapt to the economic mode and purposes of his/her environment. Dialectical is an iterative and interactive relationship between one or more elements, so that each element affects and is affected and effected by each other

element. Affect denotes the emotional aspects of an individual's behavior.

Purpose statement 3. The purpose of vocational education in secondary schools should be to develop life-long interests, such as hobbies, and to develop personal skills.

Meaning of key terms in statement 3. Hobbies include photography, woodworking, sewing, etc. Personal skills are things one needs to know to improve the quality of his or her life--such as basic repair of clothing, consumer skills, skills in the development of interpersonal relationships, general mechanical repairs, etc.

Purpose statement 4. The purpose of vocational education in the secondary school should involve a synergetic, unseparable relationship between general education and specific job training activities, from which students should develop an understanding of the nature and importance of work, and begin to focus their occupational (work) interests by developing a more concrete idea of the activities, responsibilities, and requirements of those interests.

Meaning of key terms in statement 4. Synergetic, unseparable relationship is a relationship in which the sum of all the parts, the whole, is more significant than the sum of each part taken independently. General education is an educational program in which students are not prepared for specific occupational goals; it can evolve to a situation in which learning becomes an end in itself, rather than a means to an end. Specific job training activities are activities whose goals are the attainment of certain skills by the student; these skills usually involve manual dexterity almost exactly like those of a journeyman worker. Nature and importance of work is the idea that work has intrinsic rewards in and of itself, which in many ways is necessary for the individual's development, rather than just being a way to earn a living. Occupational interests are defined to be a related categorical group of jobs; for example, in construction there are various jobs e.g., carpenter and mason. Concrete idea of the activities is a specific understanding of what someone with a particular job actually does. Concrete idea of the responsibilities is a specific understanding of what someone with a particular job must be accountable for. Requirements of those interests is a specific understanding of what someone with a particular job must be able to do to be hired.

Purpose statement 5. The purpose of vocational education in the secondary school is to critically socialize individuals to manage the work aspects of their lives in a way that is to their benefit and that of the larger community, as is befitting in a democracy. The competence to manage the work aspects of one's life is a challenge throughout one's life--it is continually under development. The role of vocational education in the secondary school is to stimulate and assist this development as it ought to be manifest at secondary school age. Dimensions of the development include: (a) moral aspects of work (e.g., relation of work to community, relation of self to other aspects of work, relation of work to other aspects of an individual's life), (b) aesthetic aspects of work (e.g., relation of work to self-concept, opportunity for personal satisfaction in work), and (c) technical aspects of work (i.e., an integration of knowing, doing, and feeling necessary in order to satisfactorily work). All of these dimensions of development require general skills such as thinking, problem solving, creating, leading, deciding, and cooperating.

Meaning of key terms in statement 5. Critically socialize means those practicing vocational education (or providing advice to those who practice) must always be open to (a) having to explain why they are teaching what is taught (whether it be to a student or the U.S. Congress) and (b) seriously considering the position of those who are doing the questioning. Larger community means the world. Democracy is a form of living together in which each individual is considered as important as another. Ought to manifest itself in development means that it depends on the larger context of society and the capability of individuals.

Purpose statement 6. The purpose of secondary vocational education within public education is to contribute to the development of people. The focus is preparation of people to function effectively in an occupational environment containing a work role of their choice. It seeks to enable people to effectively select, prepare for and perform work roles and to improve the occupational environment.

Meaning of key terms in statement 6. Development of people means the growth of individuals relative to their genetic potential with the end sought being to maximize individuals potential to contribute to society's needs as well as their personal needs. Focus means the central organizer for educational activities--in a sense, the vehicle used to deliver experiences which are effective and efficient stimuli for learning.

Purpose statement 7. The purpose of vocational education in the secondary school should be to stimulate students' interest in the characteristics and problems of the world of work; to enable them to develop, through discovery and logic, their ability to make sense of the theoretical and technical knowledge

that is part of that world; and to help them experience, in a natural way, the pleasures and challenges of such study.

Meaning key terms in statement 7. Stimulate means to rouse or excite to heightened action, and to rekindle or redirect such action as appropriate. Enable means to supply with the means, knowledge or opportunity to do something; to make competent to accomplish on one's own. Help means to contribute to in some way; to further or promote. Interest refers to feelings of curiosity, fascination, or absorption. World of work refers to the context and milieu that influences the production or accomplishment of something. Theoretical is that which is based as presumptions of truth about the relationships of things, ideas, etc., whether these be formal or informal. Technical means the rules, techniques, or applications associated with theories. Knowledge is the result of perceptions, discoveries and influences; an emerging, dynamic state that relates to both subject matter and process. Natural means that something is unaltered, not artificial, expected.

Key Concepts in a Purpose Statement

Looking at the above statements, it became apparent that there were some concepts which were important to the meaning of all of the purpose statements. The study group concluded that an examination of these common concepts would be a productive next step in deriving the implications of its previous work for the purpose of vocational education in the secondary school.

Analysis of the purpose statements resulted in the identification of eight themes or key concepts requiring a more detailed analysis. These concepts were:

1. Development--a lifelong perspective.
2. Individual differences--human beings are each unique.
3. Education--the process under study.
4. Vocation--the purpose of the process under study.
5. Work--the manifestation of vocation.
6. Ethics (of work)--the moral aspects of work.
7. Aesthetics (of work)--the personal meaning of work.
8. Epistemology (of work)--knowing how to work.

The next section begins the reporting of study group efforts in developing a

more detailed analysis of each of these major concepts. The results give specific implications for a purpose statement for vocational education in the secondary school and raise some probing questions.

Development

Meaning

- Development is the continuous transformation which takes place when an individual interacts with environmental influences.

Assumptions

- Development is a continuous process which is lifelong in nature.
- Development involves maturation which is inherent growth from within the individual.
- Development involves environmental influences which interact with the individual.
- Development may result in a transformation or movement to a higher level.

Reactions

1. The focus of the discussion centered primarily on cognitive development. Cognitive development can be viewed broadly to encompass all of what happens in the mind, all of what is known. Cognitive development can encompass physical, social, and moral development. Therefore, one's view of cognitive development in vocational education may be quite narrow if technical competence is the only focus. There may be constraints placed on the field if the perception of development is not extended to such areas as aesthetic and ethical development. Are any of these components legitimate concerns of vocational education? If they are, how can they be integrated in a way which facilitates individual development?

2. Maturation places limits on development. Genetic makeup as well as influences such as nutrition, which indirectly affect biological maturation contribute to the upper limits placed on development.

3. A key word is interaction. Development depends upon interaction between the individual and the environment. Education has a key role in facilitating interaction in a way which maximizes the development of a student. Some aspects of development may be emphasized more than others because of the nature of the interaction. For example, in a particular course interaction may focus on moral development more than social development.

4. What is the environment? The environment can be the social component of one's life. Cognition can be influenced by anything to which the mind is exposed. The environment, then, would respond to how one looks or how one does things. How one does things affects how others respond. Therefore, what one does becomes part of the environment. If maturation were to be considered as part of the individual potential within the person, the environment might include all influences outside of the individual.

5. Cognitive structures or the capacity for thinking become more complex as an individual develops. It's like a box of tinker toys that has been assembled, taken apart, and then put back together. Once it's put back together the whole world is seen differently. The ability to think is qualitatively different from what it previously had been. This new capacity is not always exercised in daily lives. There are times when problems are approached in very concrete sorts of ways even though it might be possible to deal with them in an abstract way because there isn't enough time or because of the complex nature of the problem. Even though the new structures provide a potential capacity for thinking, functioning is not always at that level.

6. Inherent in the word "development" appears to be an assumption that there is movement towards some objective which is of a higher order than the present condition. Development may also be viewed as a spiral effect that is both horizontal and vertical as one comes back and faces the same issues in a more complex way throughout life. Development could also be considered a collage, a bunch of pieces that are pieced together in a way which denotes more of a horizontal relationship than a vertical relationship. These developmental differences may be qualitative.

7. Development may progress at a faster rate in some areas of life

than in others. For example, physical development may be moving relatively slowly, but moral development may be progressing quickly.

8. What are vocational educators striving for in terms of development? Teachers go into the classroom to transform, or to change students, thinking that this will make things "better" for them. This may not be the case, however. Helping a student move to Kohlberg's highest level of moral reasoning does not necessarily make that student happier, even though the results may make this world a better place to live. In the same sense, teaching certain skills may be done with good intentions but over time result in actions that are not in any way "better" for humanity.

9. How can teachers go into the classroom without some sense that what is being done is going to make things better, or without making some decisions about what is better? One's motivation for teaching may be weak or non-existent without some sense of purpose. Will students' time in the classroom be wasted if this sense of purpose does not include movement to some higher level of development?

Questions

1. What kinds of development do vocational education programs presently address?

2. What aspects of development are of primary interest to vocational educators?

3. Is there a basis for adopting the stage theory of development over other views of development? Is it consistent with the characteristics of vocational development?

4. Is the stage theory of development consistent with the goals of vocational education?

5. Should students be informed of the development which is expected to take place during the course of a vocational education program?

6. Should moral and aesthetic considerations be an essential part of vocational education programming?

7. How do we match the educational process with the level of development of the individual?

Meaning

- All the ways in which people differ.

Assumptions

- Each individual, at the outset of life, has a large number of possibilities for development.
- Diverse as possibilities are, an individual is inherently limited by time.
- Within the limits set by the interaction of heredity and environment resulting in one's present level of development, and within the constraints of present circumstances, one has some freedom of choice about what one's future course is to be.
- Individuality consists of a unique repertoire of characteristics rather than a single unified pattern.
- Repertoires of individuals are organized into priority systems which give consistency to action.

Reactions

1. Time is a constraint for everyone. It is inherent that an individual is only going to live so long and within that time a person can develop a certain number of possible options. All the options cannot be pursued. We all have the same amount of absolute time available to us. However, time as a limiting factor does not have the same effect on everyone. For example, a gifted student can learn a concept in a short time, but a mentally handicapped student will need to take more time to learn the same concept. The remaining time for the gifted student can be used in a variety of ways. In this way even time becomes distributed individually.

2. Heredity and past and present environmental conditions--as well as the conditions of their interactions--provide additional constraints upon future courses of action. One does not have unlimited choices about the future. People cannot control their heredity, nor can they control the kind of environment into which they are born. Maybe if people had known

what kind of world into which they were going to be born, they would have preferred a different set of rules for the way society is organized.

3. People have a repertoire and they can consciously respond in a wide variety of ways. This repertoire is organized into priority systems which give some consistency to a person's action. Consistency of behavior may be correlated with how important something is to a person. If vocational education is important, students should respond in consistently positive ways.

4. Can it be assumed that the range of individual behavior will be narrow in vocational education classrooms? In a physics class certain students have already been selected out. A physics teacher assumes the students can solve algebraic equations. However, vocational programs do not make those kinds of selections. It may be that the range of differences is really greater in vocational programs--or is vocational education getting the students who don't make the selections for other programs?

5. Do individual differences really matter? Are they relevant to the purpose of vocational education? Will teachers be more effective if they are concerned about individual differences? Assuming differences are relevant, is it possible to respond to differences in a way that is equitable? Perhaps stereotypes will be perpetuated by being sensitive to individual differences. Viewing students entering a classroom as having a clean slate, all past failure and success forgotten, could be more equitable.

6. Is it more desirable to create groups of individuals in vocational education who are uniform or homogeneous, or should individuality be encouraged? Some uniformity is needed in students' behavior to accommodate the standards of society. The modeling behavior of the majority provides an efficient system for teaching this behavior. But, individuality should be promoted in areas such as problem solving. If there are different perspectives regarding solutions to a problem, then excitement, life and vitality is brought into the group.

7. When the issue of individual differences is considered, the individual differences of instructors must be be neglected. There are some teachers who are capable of effectively interacting with a wide range of students. Those teachers may be able to manage their workloads in order to be able to have time for needs of individual students. An implication is that more consideration should be given to a teacher's

time and how it's being used.

8. One final consideration concerning the issue of time involves efficiency. Time spent dealing with individual differences could result in less efficient use of public dollars and less efficient use of the instructor's energy. The end result would be the waste of resources and teacher burnout.

Questions

1. What is the response of vocational education to individual differences? How does it provide equitable opportunity?

2. How much emphasis should vocational education place on students' individual differences as the entire educational process is considered? What are the implications for a total educational program?

3. Is it reasonable to assume teachers can be sensitive to individual differences within the context of the classroom? How should this skill be taught?

4. Should students be made aware of ways that information about individual differences of students is utilized by the instructor?

5. Are some differences more appropriate for attention in vocational education than others?

6. How does purpose change if individual differences are taken seriously?

Meaning

- Education is a construct which encompasses a family of learning activities which are purposeful, organized, and ethical in developing people who are knowledgable, both comprehensively and integratively.

Assumptions

- There are conscious purposeful decisions beforehand as to what is to be learned and how it is to be accomplished.
- Professional knowledge is used to organize the process making it effective and efficient at its purpose; organization involves consideration of the learning environment and learner differences.
- Ethical considerations about what is to be learned and how learning is to take place are always contemplated; these considerations are always open for discussion by those affected.
- Education, being comprehensive, includes epistemological, ethical and aesthetic knowledge. Knowledge is both theoretical and practical, both objective and personal (subjective).
- There is a conscious effort to integrate and relate any artificial divisions of knowledge.

Reactions

1. Education is purposeful. There are goals for education. There is concern for outcome and products as well as process. There is concern for what an educated person is, can, and will be. There is a broader sense of outcome which includes the theoretical as well as the applied. It is purposeful in that conscious decisions are made about what is to be done, based on an understanding that education must be tailored to the individual's needs in a particular area of development in order to be effective. There is conscious effort to relate both short and long-term educational goals to the individual's needs. There is recognition that development involves environmental influences which interact with the individual and may result in her/his transformation or movement to other levels.

There is concern for relevance. The purposes of education include the

needs of the individual as well as that of the larger society. People can benefit from education while it is going on, so education does not necessarily need to be for something or to prepare someone for something. It can be for the "here and now" as long as one is engaged in the process and is benefiting from it.

There is concern for meaning. Education must be meaningful in order to engage the minds of individuals long enough for them to be interested and tolerant. It must be attention-getting and yet still communicate ideas in a way that is respectful of the individual's ability to understand them.

2. Education is organized in that systematic planning is used to ensure that the purposes of education are accomplished both efficiently and effectively. Education, in whatever form, has an inherent order and process. The process may be sequential, circular, developmental or even random (such as occurs through learning by trial and error).

The organization of education around a family of learning activities means that there are different ways to go about education, different processes that one might use. Being systematic means that some things will be included while others will not. However, systematization and organization alone are not enough to ensure that education is taking place. Where education is concerned, being organized means that content is systematically related to goals and that activities are grouped together contingent upon a set of preestablished objectives. It means that there are relationships among the multitude of processes, paths, strategies, techniques, etc., and the goals or outcomes envisioned for individuals. Such a system is not only organized, systematic, and purposeful; it is interactive, open, and rewarding as well.

3. Education is ethical. Educators are not only concerned with <u>what</u> should be learned and <u>how</u> one should learn; they also have moral concerns regarding <u>why</u> something should be learned. In education there is a respect for the integrity of the individual which acknowledges one's right to question the content and process of education. Moreover, the educator recognizes that all students have a responsibility to question what they are learning. The educator should be willing to address ethical concerns, while reserving the right to conjointly determine the time and space allocated to such discussions. Educators should be willing to learn from

students and to acknowledge the value of ideas and experiences unique from their own.

Education is ethical since it is about values and the process of value formation. Whether or not there are absolute boundaries to such concepts as good/bad, right/wrong, there is a concern for the way society and the individual establish boundaries. Education is ethical when educators seek to understand the difference between good and bad education. Education is ethical to the extent that it embodies a set of principles accepted by society that are fairly and equitably applied to all learners. In education there should be a respect for the rights of individuals which includes allowing them to make their own judgments and to disagree democratically with the judgments of others. The educator respects the rights of the individual by treating each person uniquely and acknowledging critical differences among individuals in the formulation of both subject content and learning process.

4. Education is comprehensive since it includes knowledge, skills, and activities derived from epistomological, ethical, and aesthetic consideration. Education is comprehensive when it addresses both theory and practice as well as the subjective and objective dimensions of learning.

Given that learning is the primary product of education, a critical question concerns what could, should, can, and will be learned. The issue of subject content is integral to the goals of education, since presumably (but not always) the individual's ability to succeed and to accomplish something is related to the material he/she is capable of understanding.

The process of establishing appropriate educational content is complicated by social values which shift as changes in the culture force continuous realignment among the divergent but interrelated elements affecting the structure of school systems. Since there is competition for the limited amount of time that comprises the school day, a key concern is to develop consensus regarding the skills, knowledge, and abilities that will be included in the school curriculum.

Several additional elements affect the determination of subject content. One stems from the distinction often drawn between schooling and educating. Disregarding the fact that in some circles schooling has acquired a pejorative connotation, it is generally agreed that schooling includes a

family of learning activities which are formally designed to provide the individual with experiences he/she needs to fit into society. However, other institutions also organize learning experiences to prepare the individual for society. Although many of these do not take place in schools or even necessarily follow a systematic curriculum, there is no reason to doubt that such experiences can and do qualify as valid educational activities.

Another distinction that can affect the determination of subject content concerns the values and attitudes one has regarding the role of training versus educating. Education for a specific role, skill, or ability has often been called training. Though the line between training and educating is difficult to draw, it is important to recognize that the development of skills alone is not sufficient to qualify one as educated. It is important for those in vocational education to emphasize that vocational education is about education and not only about training. Training is an important part of the curriculum; however, training-related activities constitute a subset of a more inclusive set of educational activities which are needed in order to adequately prepare the individual to function in society.

5. Education is integrative when the dissolution of artificial distinctions (drawn for practical purposes) between different fields of knowledge is promoted. Educators strive to relate various disciplines so that the outlook of learners is broadened rather than narrowed. Speaking of a "family of learning activities" implies that there are relationships among seemingly disparate activities which are integral to the purpose of education. It is possible to have one course on ethics, one course on aesthetics, and one course dealing with reading, but if a person is to be educated all three of these must be addressed. In practice, the learner cannot partition his/her life so as to isolate these areas.

Education is integrative when there is expansion of the relationship of the individual to oneself, to others, or to the environment. To accomplish this, education must involve dialogue. Dialogue is a conscious and deliberate interaction with and between the individual and the diverse elements of the educational process. It is both integrative and interactive.

Education is integrative when educators relate the process of interaction or dialogue with the ongoing processes of individual development

(e.g., the merging of education and self-concept development into the career development movement). This presupposes that (a) the amount of continuity throughout the developmental process may be variable and (b) education must adapt its form and process so as to be compatable with the realities of individual development.

Education is integrative when it relates the theoretical and practical dimensions of learning. Separating knowing from doing creates artificial distinctions which subsequently inhibit the ability of the learner to apply concepts or skills to a broad range of activities. If an individual is to be more than just an automaton, s/he needs to have a knowledge of the tasks performed as well as the skills to accomplish these tasks. Good practice and/or good understanding is reflected in someone who has integrated both theory and skills.

Questions

1. What are the goals of vocational education?
2. What is the best way to develop and organize vocational education curriculum?
3. How can programs be developed that are meaningful and relevant?
4. How can the varied needs of students be met with respect to developmental level and interests?
5. What should vocational education NOT be teaching?
6. What are the moral and ethical responsibilities of the vocational education teacher in regard to students and discipline?
7. How can the moral character of the learner be developed?
8. What is the role of the student in respect to challenging the appropriateness of curriculum and materials?
9. To what extent are educators responsible for broad societal ethics?
10. What should be included in the vocational education curriculum?
11. How can the most appropriate learning activities for students be selected?
12. How can the various learning disciplines be integrated so as to avoid fragmentation and compartmentalization?

13. How can dialogue be promoted between teacher and student?

14. How can learning be organized so that the learner has opportunities to both think and do?

Vocation

Meaning

- A focus of life activities which renders these activities perceptibly significant to a person, because of the consequences they accomplish, and useful to one's associates.
- That more or less continuous, daily occupation by which adults primarily produce the exchangeable service or commodities essential to their support.
- An occupation requiring less than collegiate level preparation.

Assumptions

- Individuals have several different vocations at the same time; the interaction of these vocations is as significant as their separate effects.
- Vocations are social roles by which one contributes to and benefits from the shared way of life in a society.
- Selection of a vocation and behavior in that vocation should be reasoned by ethical principles.
- A vocation, through its aesthetics, should give positive meaning to life.
- Vocation can be both means and end simultaneously.

Reactions

1. A vocation involves personal commitment where it has meaning. It gives positive meaning to one's life. A person considers ethical principles when choosing a vocation.

Vocation in the religious sense is characterized as the principal purpose of one's life. Common usage has identified one's principal activity as vocation. Society groups people by work activity titles, and the economic

view or framework tends to assign value to people in terms of work roles. Dewey warned against labeling people by how they earn money due to the narrowness of economic benefits and the consideration of but one of a person's many roles (vocations). If individuals are valued as persons, not simply parts of the economic machine, their specialized work would not be labeled as their vocation.

Assuming the "principal purpose of one's life" definition, education for specialized (economic) work is vocational education for some people, but not for others. If the specialized work met the criteria for principle purpose (meaning, contribution to self-esteem, commitment, etc.), it would be a vocation. In this situation, specialized work education would be vocational education, otherwise not.

2. The term occupation is used to label at least two different concepts. One meaning is a type of work activity, a job title. Another meaning is related to how a person uses time. In the sense of the first meaning, a number of people have advocated use of the term occupational education when referring to specialized work education. The reasons for this definition are varied. There is recognition that specialized work education may not meet the criteria for a vocation, and there is also an effort to avoid a vocational versus professional dichotomy. If the "time use" meaning is utilized, what is occurring in most vocational education programs is occupational education relative to economic work roles.

3. A vocation requires applications of both general and specific or specialized skills and knowledge. The specific skills and knowledges are critical to success, but not sufficient for the most long-term benefit for society. The question of when specialized skills and knowledge should be the focus of the educational process for vocational preparation is open to debate. To date the evidence for when is philosophically derived rather than empirically demonstrated, especially in the face of individual differences. For many it would appear that moving from general principles to specific skills and knowledges is less efficient than moving from specific knowledge to general principles. Movement from the concrete to the abstract appears easier for most people.

Questions

1. Why was the term vocational used to describe education for specialized economic work roles? Was it an appeal to ideals? Was it a marketing device? Was it the theological basis of being called to do a work role which society helped an individual find and fit?

2. How do social studies and "vocational education" interface in the provision of education relative to vocations, particularly as the issues move from specific skill or knowledge to ethics? How can the gap between narrow economic "work skills and knowledge" education and typical social studies courses be reduced so that the major aspects of work and vocation do not fall through the cracks of the curriculum?

3. What is the content of preparation for vocation?

4. Where and when is vocational preparation best done?

5. What is the unique role of the school? Who else is involved?

6. How are students to be sorted for the available vocations?

7. What is the role of vocational education in this process?

Meaning

- Work is a construct describing purposeful activity requiring effort which produces artifacts of economic, social and/or personal value to individuals, institutions and/or society. The broad purpose of work is individual and societal development.

Assumptions

- Work is an activity, as such it requires mental and/or physical action.
- Work involves effort, as such it requires exertion and trying.
- Work is purposeful, as such there is an intent to do or accomplish something; there is a goal directedness; the broad goal is full individual and societal development.
- Work produces artifacts which are characteristic products of human activities. These artifacts can be classified in different ways (e.g., goods versus services; things versus ideas) for different purposes.
- Work is valued by the individual doing it, by institutions, and/or by society. In these contexts, it has economic, social, and/or personal value; and it has intrinsic and/or extrinsic rewards. When there is divergence between the individual's, an institution's, or society's value of an individual's work, the definition of work is problematic.

Reaction

1. A critical question facing vocational educators is "what do we mean by work?" The implications will be different, depending upon whether the concept is broadly or narrowly defined. In thinking about work, one thing that is evident is that it is important to be clear about the meanings of work. Do the meanings include the work of the plumber, the work of the farmer, the work of the doctor, and the work of the person who gardens not for a living but because he or she enjoys it or wants to save money--does work mean all of these things?

2. Vocation and work are often assumed to have similar meanings. In vocational education, there has been a history of concern for work that

definitionally (a) is either income producing or income saving, (b) is nonprofessional, and (c) does not require a baccalaureate degree. The work of a homemaker could be included. This meaning constitutes a special set of work roles designed for particular groups of people. Changing the parameters of vocational education could result in (a) a large gap between what is being done and what the purpose might be, (b) questions regarding the relevancy of programs, or (c) a need for redirection.

3. If the purpose of vocational education addressed work in its broadest sense, work could be studied as it relates to various subjects in a curriculum. Students could be helped to understand the implications or meanings of work. Included would be study of the characteristics and consequences of particular careers--a thrust comparable to that of career education. One effect of such an approach might be that it would not be necessary to have legislation geared to particular occupations. Examining the history of career education may be helpful in operationalizing a broad concept of work. It would also be useful to look at the impact of federal legislation on views about work and directions in vocational education.

4. Secondary programs need to address a broader purpose then is being done presently if tracking is to be minimized. A holistic framework would be required to show how all the different aspects of general and vocational education fit together. A number of dichotomies now exist that cause them to be seen as separate, rather than integrative and synergistic--much like seeing part of the elephant rather than seeing the whole elephant. Such fragmentation may result in distinctions like those that are made between the blue and white collar worlds. The situation might be avoided if the contributions of each discipline or professional field were considered, for then technical skills and knowledge would be valued as are other abilities.

5. Conditions which cause people to change jobs or careers and attitudes or feelings about the nature of one's work are also important. Both affect an individual's commitment in a particular situation, yet do not account for it entirely. Some work is tolerated, even though it may be tedious or unpleasant, when it influences one's ability to be successful in achieving other goals. A broad perspective would allow work to be

studied in connection with its relationship to family roles, individual development, social conditions, and so forth. The value placed on various kinds of work enters into this perspective.

6. It's important to ask the question of whether vocational education is necessary, whether it contributes to the development of people, and whether needs are being met. What might be the consequences of vocational education not surviving? One effect might be that a considerable amount of resources used to educate persons who are economically disadvantaged would be reallocated to general purposes. Differences in the two groups (disadvantaged and advantaged) may be accentuated in regard to income status, job satisfaction, and opportunities for retraining. Until the tangible (income) and intangible (satisfaction) differences between those that have a lot and those that don't have very much are minimized, it may not be possible to achieve a peaceful society. It is a political/social problem.

7. Individuals are different, yet half could be considered to be below average on any given dimension. Using language such as average, high, and low ability implies meanings that may not be consistent with a broad perspective. Variety may be a more appropriate term to use, particularly when relating abilities and needs to a learning environment. People have a need for both concrete and abstract kinds of functions. Even if they can deal with complexity most of the time, people still find it helpful to deal with concrete things under certain circumstances.

8. There may be a social institution called "work" that is used to distinguish certain kinds of activities from others. However, if everything one does is work, distinctions have little meaning. Specialization of tasks in United States culture reflects separation of activities. Vocational education has reinforced the idea of specializing through its emphasis on the development of specific skills. The early legislation may not have intended this to happen since it emphasized preparation for gainful work. From the labor perspective, that may have meant basic education, understanding the history of work, and developing a sense of quality. From the management point of view, it may have meant skill development for jobs that needed to be done. Because meanings of work may vary over time just as language evolves, vocational educators might choose to address certain

meanings. However, what is work and what is not work becomes less and less clear. It is increasingly difficult to draw a line that distinguishes work.

9. Exchange reflects the value of work that is "traded off" to provide other kinds of returns. The value of work in the home is an example, as is providing for oneself so that society doesn't have to assume this responsibility. Social values of work are balanced by personal values, reflecting that which is of value to others and that which is of value to oneself. The society versus individual dichotomy may be compared to the objective versus subjective dimensions.

10. Work may be a milieu, rather than an activity. One may be engaged in an activity that later comes to be defined differently than it was initially. For example, painting as a recreational pursuit may not be considered to be an artist's work until later when the painting is sold. Intent is a factor to consider, and so is the content. One way of describing work may be to determine whether there is a product or a need to gain some other return (e.g. social, psychological, or economic).

11. There may be dimensions of work that are instrumental, or directed to activities that help attain goals; communicative or interpretive; and emancipative or moral and social. Expressions of these dimensions are culture-based. An economic perspective might view instrumental work as income producing or income saving, but that is only one of the dimensions. If the dimensions are not viewed as work-related, but instead are considered to be different types of actions, work is a means to accomplish them.

12. Work is rarely defined by the individual. Society has accepted definitions of work. Effort that is not valued is not included in a broad social interpretation of work.

13. Within a vocational context, work could be construed as how a person spends time productively. This would encompass the way an individual earns a living as well as the responsibilities associated with family life. Work is associated with rewards that are either intrinsic or extrinsic, and of an economic, social and/or personal value. This association is not unique to work, however, for leisure also has rewards.

14. There are both objective and subjective elements of work. The

subjective element involves those distinctions made by an individual regarding automony, relevance, responsibility, and rewards. The objective aspect involves the exchange of something of mutual value. When the subjective and objective elements are convergent, the issue of "what is work" is not a problem. It is when work has only intrinsic value that it is difficult to determine whether it is truly work or something else, like leisure.

15. In order to reflect a broad concept of work, the context may need to be broad. Yet, if the context is too abstract, meaning is lost. There are few referent points. In order to determine whether a fishing expedition could be considered to be work, for example, it might be necessary to know whether it was a pleasure trip, whether one was paid for it, or whether you have to fish in order to eat.

16. Society may be affected indirectly by individual work that has only intrinsic or personal value. The benefits of being personally satisfied may be extended to society in other contexts of work; a vacation spent building one's own house may make that person more productive at his/her place of employment.

17. Meanings attributed to work affect vocational programs, since resources are allocated at least in part on the basis of what is considered to be work. Content is also influenced by meanings. Vocational curricula that emerge from a narrow definition of work tend to focus on the development of technical skills which may not be sufficient if broad problem-solving skills are needed.

Questions

1. Is a reconceptualization of vocational education necessary or could broad purposes be addressed through refinement of what exists?

2. What can be done to move away from a "charity" perspective of vocational education?

3. What is not work? How is work different from leisure?

4. How can people be prepared for work if there is no consensus regarding the meaning of work?

5. Is work only an activity? Might it be a state of being?

6. Can there be purposeful activity that has no value?

7. What is the context within which work is defined? How does context influence its meaning?

8. What is a vocational context?

9. Does work have to be of value to both the individual and society?

10. What common meanings of work are most appropriate for vocational education to address?

Ethics (of work)

Meanings

- Ethics is a branch of philosophy devoted to thinking about morality, moral problems and moral judgments.

- Ethics are standards by which judgments of moral obligation and value are made.
(Note: "Ethics" is derived from the Greek ethos which originally meant customs and usages of different groups, and later meant dispositions, or character. Dewey & Tufts, 1908)

Assumptions

- Ethics are normative in the sense that general moral principles are derived or accepted which help determine what is right or good, either in a theoretical or a practical framework.

- Ethics are developed through a process of conscious thought that includes dialectical examination and critique of moral quality.

- Ethics result from the exercise of free will, yet paradoxically emerge also from cultural sensitivities and practices that stimulate or encourage such reflection.

- Ethics are self-justifying, rooted in the nature and relations of things.

- Ethics may be relative there is no assurance that full enlightenment would result in consensus on moral questions.

- Ethics relate inner purpose as determined by outer conditions and outward behavior as determined by inner purpose.

- Ethics focus on the relationship of the individual to others.

Reactions

1. When comparing the concept of ethics with that of morality or values, dimensions such as social consciousness, personal orientation, formality, and practice need to be considered. The terms ethical and moral tend to be used interchangeably because each implies a social consciousness regarding what is good or right. The term moral gives a more personal orientation to this consciousness than than does the term ethical; the idea of ethics connotes an institutionalized perspective. Judgment of good or bad in a moral sense is a part of ethics, and ethics provides a vehicle or method by which moral responsibility can be effected. Both moral and ethical go beyond the concept of value in that values may not be moral. Values may not be founded in the welfare of the group, but rather in personal self-interest. The personal orientation of values limits the degree that they can be considered normative. Ethics, however, embody normative standards.

2. Basic questions involved in the determination of ethics include: What is the reality of the situation? Why is it important? How does it come about? Who's involved? When? and Where? Ethics relate to practical problems in that they are contextual or situational in their application.

3. The moral component of "practical" from an ethical perspective goes beyond utilitarianism. The effects of actions on people are considered in addition to efficiency and/or economy. A "principle of proportionality" is applied, whereby consideration is given to that which is of the greatest benefit to the group as a whole. Yet, even then the effects on individuals are not disregarded. Practical implies resolving tensions that emerge from juxtaposing the welfare of the individual with that of the group, and doing so in a way that can be justified as being right.

4. In an ideal sense, concern for the practical is more than a moral concern, although that is part. Aesthetic and knowledge concerns also are involved. Practical implies time constraints for action. Consequently, actions develop incrementally rather than holistically; problems may not be addressed until their efforts are painful enough that someone gathers courage to ask the basic question--"What's going on here?"

5. Professional ethics may be reduced to a basic question: "Are you enabling or exploiting people?" Professionals, with their special qualifications, are capable of benefiting society. Within their area of

expertise they are responsible for knowing what could be harmful or helpful to others. Knowingly causing harm to others can be considered immoral; doing so out of ignorance might be irresponsible, but not immoral.

6. Morality is closely associated with humanness--the fact of being a human and perceiving others as persons. In vocational education this would entail recognizing the limitations as well as the benefits of preparing people for particular jobs, and communicating these to individuals so that they can make informed choices. Without such information individuals can be misled into believing a program or job might automatically lead to a secure future.

7. If one's personal interest is served by the status quo, or if raising ethical issues results in professional retributions, one is less likely to ask questions concerning the rightness of professional action. This is particularly problematic if the institution, organization, or profession of which one is a part has systematized practices that affect individuals adversely. Conflicts between one's personal/professional orientation and one's job description are likely to result.

8. Action based on the assumptions that (a) more harm would be done to individuals if no action were taken, (b) individuals would not have been successful in any case, or (c) indirect benefits are derived, may not be justifiable on ethical grounds. Educational practices based on these assumptions should be examined within the broader context of the effects on society and the individuals involved.

9. Determining whether one is being unethical involves answering the question, "How do I know?" This is only a first step, for one must then decide whether some persons are affected more than others, and whether (and how) one should stop an unethical practice. Relativity enters into such decisions because the situation may require benefiting some and not others.

10. Unethical practices can be perpetuated because of peer pressure or tradition. Support networks are needed to help individuals deal with the personal repercussions of acting ethically when it is not a popular thing to do. Disagreements may develop because one's philosophy or perspective influences what is thought to be ethical. For example, the principle of proportionality may be applied differently depending on one's orientation. Misconceptions also result from insufficient knowledge of an issue or

situation.

11. Fundamental to determination of what is ethical is the question of who is more important--the individual or the group, and when. Justice at its most abstract may overlook the individual person. This becomes difficult when organizations or systems are involved. "Corporate" relationships or standards can become more important than people. Paradoxically, these can also cloak practices that are essentially personal and self-serving. Elements of the moral issues may then be the degree of knowledge, harm, personal gain, withholding information, and judgment. Value positions influence what is thought to be good.

12. Trying to make or respond to change without asking ethical questions is like trying to change the fan belt when the motor's running--you get messed up. In vocational education, basic questions need to be asked when making program decisions, evaluating, conducting research, etc. Standards that have been and are used include usefulness, feasibility, propriety (legal and ethical properties), and accuracy. Students could be taught to apply such standards in problem situations.

Questions

1. To what degree does professional ethics involve making moral judgments?

2. Is causing or allowing harm to come to others through one's professional actions immoral or unethical if one is ignorant of the possible effects?

3. What are the implications for ethical practice if people are not informed of program limitations?

4. Is action taken to assure survival of an individual in a job, an organization, or a profession justifiable on moral grounds?

5. What criteria should be used when deciding how practices should be changed, particularly if any action is going to affect people differently?

6. When should ethical questions be asked in vocational education?

7. What is the ethical content of vocational education? What is its relative importance to technical content?

8. What should be done if ethical standards for vocational education conflict with the normative standards?

Aesthetics (of work)

Meanings

- Aesthetics is a branch of philosophy which studies the qualities perceived in works of art with a view to the abstraction of principles.
- Aesthetics studies the mind and emotions in relation to a sense of beauty.

Assumptions

- Aesthetics is an integral characteristic of every object, process and relationship, whether natural or man-made.
- The content, form, and function of an object, process, or relationship are explored through aesthetics.
- Aesthetics investigates the value judgments made concerning art, beauty, harmony, order, and perfection.
- Since beauty is always in the eye of the observer, aesthetics involves a subjective dimension.
- Aesthetics can extend the range of perception, sensitivity, and understanding of the observer.
- The study of aesthetics can lead to a greater appreciation of the utilitarian as well as non-utilitarian aspects of work and creation.
- The nature of aesthetic study is constrained and influenced by the norms, biases, and prejudices of the prevailing culture.
- Aesthetics provides a medium of communication which transcends cultural and individual differences.
- Aesthetics provides a unique pathway for personal integration through the sense of satisfaction and accomplishment which accompanies an awareness of beauty, harmony, order, and perfection.

Reactions

1. Aesthetics in vocational education raises an image of style with respect to the accomplishment of certain ends and goals. It is to envision styles which are unique to individuals, roles, disciplines and jobs. Alfred North Whitehead (1929) talked of an aesthetic style based on admiration for

the direct attainment of an end simply and without waste. Style in arts, style in literature, style in science, style in logic, and style in practical execution have fundamentally the same aesthetic qualities, namely attainment and restraint. The love of a subject in itself and for itself reflects a love of style. But is there the language to describe style in vocational education? The style of a manager, statesperson, or politician is often talked about. But one does not hear talk concerning the style of an auto mechanic, welder, or secretary. In fact, is there really such a thing as style in vocational education? And if there is, then how do we determine which styles are aesthetic and which are not?

Perhaps style pervades everything, and is something which unites everything about how a person operates, whether he or she be an auto mechanic, teacher, secretary, or manager. Style may not be one thing, but many things that link things together and make sense out of how a person operates. However, the aesthetic experience can also be very specific to one person (or very common) depending upon what's captured. The universality of the values captured in the experience will say something about how widely it is regarded as aesthetic. Thus, something that is very aesthetic for one person may not be considered aesthetic by others. A problem facing vocational education is the need to determine what sort of common aesthetic values should be expressed by teachers and by students after they leave school.

2. To build aesthetics into the curriculum involves going from the abstract to the applied, from the theoretical to the practical. It involves answering such questions as: How can vocational education prepare people to enjoy aesthetic experiences, to look for them, and to manage life so that they happen? What will such programs look like, and what kinds of behaviors are involved?

A key component of aesthetics may rest on developing individuality. In many schools, instructors feel that to be vocational they must duplicate the work site. The result of this emphasis can be that students do not engage in much creative or independent thought. When individuality is removed, so are aesthetic elements. When the student has no control over any of the creative elements, there is a loss of aesthetic experience.

On the other hand, the aesthetic beauty of rituals, uniformity, and

cooperation (such as in found in a marching band or pledge of allegiance) has often been noted. Such experiences point to the fact that aesthetics may lie in both highly structured and loosely structured activities. It may not be the structure of the class or activities per se which determines the aesthetic experience.

The aesthetic experience may also be linked to a sensitivity on the part of some teachers which enables them to recognize the aesthetics of product, process, and relationships, and enables them to point out these perspectives to students. Aesthetics is something which these teachers allow and provide within the curriculum, something to which they give explicit recognition.

The task of developing aesthetics within the vocational education curriculum is complicated by the fact that it is difficult to teach aesthetics. Aesthetic elements are transmitted and developed through many modes. They are found not only in the way that a subject is taught or content of instruction, but in such diverse activities as how a teacher talks, walks, and relates to students; even what a teacher wears may influence the development of aesthetics.

Aesthetics is learned through an appreciation of other perspectives as well as by an awareness of what is beautiful, harmonious, or pleasing. Although aesthetics may flourish best within an environment rich with creative and unique experiences, even the mundane and boring can be used to teach aesthetics if the style of the teacher reflects an awareness of the aesthetic dimension of the subject material.

3. Vocational education can also develop greater aesthetic appreciation on the part of learners by surmounting the distinction that often separates the product of the worker (skilled trade) from the product of the artist (fine art). To some extent, this distinction reflects class bias which assigns the applied utility of the working person's craft to a lower status than the non-utilitarian, purely ornamental endeavors of the fine artist. Nevertheless, it should be possible to link the creative efforts of the agricultural mechanics student to the creative efforts of the fine artist--not necessarily by taking students to an art museum, but by showing them that their works and products have an aesthetic dimension similar to that usually associated with the efforts of artists, playwrights, musicians,

singers and actors. By noting these similarities, students may begin to see that many of the exhibits in the art museum aren't very different from the products of their efforts.

4. One important issue is whether or not an appreciation of aesthetics is affected by masculine and feminine values. Is femininity more conducive to an appreciation of aesthetics? There are those who believe that beauty and the subtleties needed for its appreciation are ignored in the male value system, that men are taught to overlook the intrinsic beauty of an object in deference to its perceived utility, efficiency, and practicality.

5. Another dimension to teaching aesthetics in vocational education concerns the subject of feelings and their value in developing the aesthetic experience. The development of aesthetics requires an openness and sensitivity between teacher and student which views each person as unique and each class as different. Each time the teacher walks in the classroom it will be different. Mondays will be different from Fridays and one Monday will be different from the next Monday. A sense of these differences is probably not something that one learns through study. It is more likely a sense that can best be felt by individuals who are in touch with their feelings, and who are willing to allow such unique experiences to be "felt."

6. There is also a moral dimension to aesthetics, and it seems apparent that values both influence aesthetics and are taught in aesthetics. For instance, by creating a greater awareness of the values which students bring to their work, students may begin to see beauty in creative acts different from their own. On the other hand, it is possible that an appreciation of aesthetics can be exploited. In one scenario, workers are pacified with boring, mundane, and potentially destructive work by the introduction of Orwellian tactics that foster complacency to a host of industrial ills. Aesthetics could lull workers into ignoring wider social concerns.

In conclusion, the values of aesthetics in the curriculum will be a reflection of the larger values in the culture. However, an appreciation of aesthetics will in turn affect these values.

Questions

1. How can appreciation of the aesthetic experience be developed in vocational education curricula?

2. How can vocational educators develop an understanding of aesthetics?

3. How can an appreciation of aesthetics be developed without trying to make students into mini-philosophers?

4. How can it be determined which values are aesthetic and should be transmitted in the curriculum?

5. How can an appreciation of the beauty of differences and uniqueness be encouraged, as well as the beauty in uniformity and order?

6. What role should other professionals have in teaching aesthetics in vocational education? Would it be possible to have an artist, writer or musician as a visiting expert on the subject?

7. What is the present aesthetics of work? Should it be taught? Why or why not?

Epistemology (of work)

Meaning

- Epistemological concepts pertain to the nature of knowledge. These inexact concepts are used to determine truth, or whether something actually can be considered as knowledge.

Assumptions

- Knowledge involves knowing of and/or knowing how.
- Knowledge may be personal and/or external in nature.
- Knowledge may be empirical and/or phenomenological.
- The dichotomies of knowledge, knowing of and knowing how, personal or external, and empirical and phenomenological, may in fact not be readily separated and distinguished.

Reactions

1. Knowing of, without knowing how, is similar to what occurred in classical Greek civilization, where knowledge, considered as an end in

itself, was not applied. Useful devices were discussed, but attempts to create and put them to practical use were not usually made. However, the very fact of transmitting some of these ideas to diagrams on paper could have inferred knowing how.

2. The sequence of knowing may be an important influence on the nature of knowledge. Although knowing of may have preceded knowing how in the classical Greek groups, it may be reversed in today's vocational classes. Instructors may use the knowing how as a way to motivate students to knowing of. As a result of this comparison, the point can be made that perhaps knowledge of and knowledge how, lacking a clear-cut sequence, might also be inseparable. The knowledge of something may be very much a part of knowing how, and separation of the two concepts, while seemingly feasible, may not be possible in reality. It could be that ideal educational experiences integrate these two types of knowledge, rather than encouraging the development of instructional experiences in which the distinction is maintained by having students separately address either knowing how or knowing of.

3. Another aspect of the knowing of and knowing how dichotomy may include associating knowing how with handedness and knowing of with headedness. For example, it can be questioned whether academic improvements in vocational education mean increasing the degree of "headedness" required at the expense of its "handedness." The interaction of knowing of and knowing how may also be more than just additive. A synergistic experience can occur that results in the whole being more than just a sum of the parts. An example of this is the combining of knowledge of materials and knowledge of how to fabricate them. The resulting product can be more than just a functional product, it may be an object of art with all its associated qualities.

4. The origin of knowledge must also be considered. Certain knowledge could be described as being personal in origin while other knowledge, such as that which is culturally determined, could be considered as originating with external sources. Another consideration is the question of whether perceptions and values that are internally originated are to be considered as knowledge. The fact that ethics, values, and perceptions involve certain basic assumptions or knowledge of something would indicate a knowledge basis for them. This indicates an internal source of knowledge that interacts

with external knowledge, a process which raises an interesting question: Can internal knowledge, perceptions, and/or values be taught? If it is assumed that external referents influence developing perceptions and values, then it would seem possible that instruction could affect knowledge which is internal.

5. One approach to considering the nature of knowledge is phenomenological. Alternative orientations are the rational, empirical, and pragmatic approaches. In the phenomenological approach to knowledge, feelings and emotions are part of an object's meaning. It includes a combination of knowing of, knowing how, internal knowledge, and external knowledge. A problem associated with this approach is that it quickly departs from an objective base and becomes included in a mass of feelings and emotions.

6. The other three approaches to considering the nature of knowledge all emphasize a natural science approach which is more experienced-based. Their differences lie in the degree of actual manipulation of phenomena. The approach involving the least manipulation is the rationalistic. Deductive in nature, truth is not contingent on observable facts of nature or experience in the rationalistic approach; rather, it is internally originated. In contrast, the empirical and pragmatic approaches rely on observations of actual phenomena, with pragmatic knowledge being more externally oriented and related to solving actual problems.

Questions

1. To what extent does knowledge involve knowing of or knowing how, and are these aspects separable components?

2. To what extent is knowledge based on personal or external activities or experiences, and are they separable?

3. What approach should be used when determining the nature of knowledge: One which is phenomenological, or one which is more evidence-oriented?

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Part VIII

Reflections

By the end of summer 1983, several reports on the quality of the nation's schools had been published and highly publicized. Parents, teachers, teacher educators, legislators, school board members, students, and everyone else would have found it difficult to escape learning about the purported weaknesses of the public schools in the United States today. The motivations underlying each of these reports and the evidence used to support observations and recommendations varied greatly.

One consistent theme in these reports was that the public school system lacks a clarity of purpose today. This theme is exemplified by the following statement in Boyer's (1983) report on high schools:

> . . . high schools lack a clear and vital mission. They are unable to find common purposes or establish educational priorities that are widely shared. They seem unable to put it all together. The institution is adrift. (p. 63)

The reports varied in the extent to which they commented on vocational education. Some were silent about vocational education and some were as critical of it as they were of the entire schooling enterprise. When vocational education was discussed, a common complaint was that it contributed to the tracking of students and the truncating of their opportunities--saying to some students that they are less able intellectually and more likely to end up in low paying, low prestige, and dead-end jobs.

One report (Adler, 1982) called for the total abolition of vocational education from the secondary school system, a few reports (e.g., A Nation at Risk, 1983; Action for Excellence, 1983) played it safe (or ignorant) by not being clear or strong on their position about the role of vocational education, and at least two researchers (Boyer, 1983; Goodlad, 1984) claimed an important place for vocational education. For example, Boyer stated:

> Eliminating the vocational track does not mean abolishing all vocational courses. Indeed, many of these courses are enriching and useful. They provide excellent options for a wide range of students and should be strengthened, not diminished. What we would eliminate are discriminatory labels and a tracking pattern that assume some students need no further education and that cut

> off their future options. We would also eliminate the narrow "marketable" skills courses that have little intellectual substance, courses that give students "hands-on" experience while denying them a decent education. (p. 127)

Goodlad (1984), in his thoughtful and knowledgeable discussion of the vocational/academic split, identified several problems which should concern vocational educators as well as others. His argument in support of vocational education is contained partly in the following excerpt from his recent book:

> . . . general education is the best preparation for effective individual functioning and responsible citizenship. I further believe that vocational education, including guided work experience, is an essential, not merely an elective, part of general education--and here I go beyond many of vocational education's strongest advocates. This means that vocational education is for all students, not just an alternative to academic studies for the less academically oriented. I want the college-bound students to include vocational studies too, just as I want to be sure that students not going to college secure a balanced program in academic subjects. (pp. 147 and 148)

So, as the 1983-84 academic year began, educators, including vocational educators, felt subpoenaed to defend themselves and their field against accusations and/or they felt challenged to reform the schooling system. Some vocational educators at the University of Minnesota reacted by forming the study group which has produced this monograph. They judged that before an assessment be made of the quality of vocational education, the purpose for vocational education in the secondary school required attention. This section of the monograph presents reflections on the process and content of the group's work.

Reflections on the Process

The study group was initiated by George Copa who sent a memorandum to all faculty and graduate students associated with the Minnesota Research and Development Center for Vocational Education at the University of Minnesota. The memorandum invited faculty and graduate students to become involved in a group to study the purpose of secondary vocational education. Specifically, the study group formulated as its central objective the development of a framework(s) for thinking about the purpose(s) of secondary vocational education.

Four faculty and four graduate students formed the group. They represented a variety of special fields within vocational education: agricultural education, home economics education, and industrial education. One of the faculty members, James Knight, was at the University of Minnesota during 1983-84 while on sabbatical from The Ohio State University. The four graduate students were all enrolled in doctoral programs in the Department of Vocational and Technical Education. Copa coordinated the study group's work throughout the entire project. Group members assumed responsibility for individual sessions and for preparing portions of this report.

The conceptual framework presented in Part I evolved early in the group's discussions and served as a guide for the first six parts of the work reported here. The need to examine key concepts also was identified fairly early in the project and was the focus of discussion for several months. All the group's sessions were tape recorded and transcribed for use in preparing a written account of each session.

Having eight people involved in a year-long project presented both problems and pluses. In the following paragraphs, some of these problems and pluses are identified in order to be of use to others in or out of university settings who might be interested in forming similar study groups, particularly groups addressing broad issues such as the purpose of vocational education.

Problems

One of the problems was that of simply finding time when everyone could meet. A three-month schedule was set at the beginning of each quarter; attendance was relatively high, with one or two members absent each session.

Another problem (which also has a positive side) was the variety in group members' subject matter backgrounds, extent of experience, degree to which they had already wrestled with some of the issues under discussion, and ability to think abstractly and critically. Each group member brought a unique perspective and competence which needed to be understood by the others, accepted, and capitalized upon. Certainly that wasn't accomplished--to the extent that it was--without frustration and disagreement. Considerable time and emotional energy went into developing understanding of alternative perspectives. Most likely each group member felt that he or she made compromises in arriving at this report--compromises in substance and/or quality.

Because of the volume of material the group wanted to review, individual members generally read different articles and books. Discussions were based on the summaries of readings presented by individuals rather than on everyone's interpretations of common readings. This strategy relied on the thoughtfulness and thoroughness with which each person prepared materials for the meetings. The choice between having a common knowledge base of limited scope and trusting individuals to competently summarize material for others' consideration is a choice a similar group would need to make. Another option, of course, is to devote much more time to a project such as this so that everyone could study the same set of materials.

A potential problem, although one that would not likely have been apparent to any observer of the group's meetings, related to the mixing of faculty and graduate students and the attempt to work in a collegial spirit rather than in a traditional faculty-student relationship. Graduate students might have felt inhibited in making their offerings to the group, or they might have desired to "show off" for the faculty. Faculty might have felt either reserved in critiquing students openly in the sessions or eager to show the students the "errors of their thinking." It is possible that some of these feelings were present in individual group members. The problem, if it was one, was not raised for discussion.

Maintaining interest in and commitment to the project over a year's time was not easy. Two "carrots" seemed to help sustain motivation: the expectation that the group's work would be reported in a publication which could be used by others, and the anticipation of presenting a group symposium at the 1984 annual meeting of the American Vocational Association. Perhaps without these forms of making the group's work public, the project would have fizzled out or only some members would have seen it through to the report stage.

Pluses

Several positive aspects of the process also deserve mention. The diversity of backgrounds and perspectives of group members, although complicating the group's work, was a major strength of the group. To some extent, this diversity mirrors the makeup of many actors in vocational education today. If the various knowledge, beliefs, prejudices, commitments, worries, and hopes represented by individuals in the study group are somewhat representative of those found in

other diverse groups of vocational educators in Minnesota and the United States, the soundness of the group's work is enhanced.

Not only did the variety in the group composition serve to ensure some degree of balance and representativeness, but also it served to enrich the depth, breadth, and flavor of the discussions. It also turned out that group members played a variety of roles to make the group function: some tended to raise questions, some played the role of mediator, and others sought to bring the group to consensus. Basically, their interest in and commitment to the objective of the project and/or the stimulation of the process itself made the group work as well as it did.

A second major plus of the process was the development it offered to each group member. There was development, first of all, of thinking skills. Writings of others were analyzed, writings and ideas of group members were critiqued, meanings for concepts were formulated, and "what if" propositions were tested. Individuals prepared syntheses of the discussions as they reflected on them and as they prepared written materials.

Another type of development occurred as individuals learned to use these reasoning skills in a group and as a group. Additional skills were needed in this process which were different from those that are needed when one prepares a term paper for a course, a report of one's research project, or any other scholarly activity which is conducted primarily independently.

Further, there was a chance for development and expansion of one's existing view of education, vocational education, and the specific fields within vocational education. Odd as it seems, rarely do vocational educators representing various perspectives and fields within vocational education seriously confront a question as important as that of the purpose of vocational education. Study group members worked hard to understand one another and to make themselves understood. Much more effort to develop this understanding is needed, of course.

Another way in which development occurred was that each group member was responsible for briefing the other members on a topic and for preparing written copy for the report. Each group member could sense his or her contribution to the collective work.

A third positive outcome of the study group work has been the interest shown by others in the "findings" of the project. Interestingly, this interest

has come more from colleagues outside of the University than from those within. The study group already has reported to directors of vocational education in Minnesota secondary schools, staff of the Minnesota Department of Education who are responsible for secondary school vocational education, and a joint meeting of the State Board of Education and the State Advisory Council on Vocational Education. A representative of the study group also presented testimony at a hearing of the State Advisory Council on Vocational Education.

Reflections on the Content

Each section of this report has concluded with a presentation of some implications for vocational education in the secondary school. The purpose of the discussion in the following paragraphs is to present for consideration some questions which arise out of these implications. These questions are not mutually exclusive; they overlap and interweave with one another, but are presented separately in order to clearly identify each.

What Should Vocational Education Contribute to the Overall Purpose of the Secondary School?

If vocational education is an element of the secondary school, its purpose should be consistent with and contribute to the purpose of this broader institution. At least the purposes shouldn't be contradictory. Without clear view of and concensus on the purpose of the public secondary school, it is difficult to set forth a statement of purpose for vocational education in the secondary school and specify how it relates to the overall school mission. However, there seems to be considerable agreement that schools ought to be developing students' cognitive processing skills. Vocational education does/could contribute to this end in two primary ways:

1. <u>An emphasis on the use of skills and learnings developed in other areas of the school curriculum to concrete situations</u>. Vocational education provides numerous and "natural" opportunities for students to apply concepts and principles from other courses (e.g., mathematics, science, language) to problems and situations which they encounter in their "real life." Students' perceptions of these applications as authentic and relevant to their lives heightens their motivation for learning these basics and increases the likelihood that

abstractions will make sense to and be remembered and used by students. Vocational education is not seen as a substitute for the practice that does go on in the other curricular areas; it is seen as sharing with the other areas the goal of making learnings meaningful and relevant to students.

2. A joining with other educators to help students develop and practice reasoning skills. A common perception of vocational education is that it trains students to perform step-by-step tasks which require little, if any, thinking. Perhaps that perception is accurate; perhaps rote training is defensible in some cases. However, what seems critical for students' development is a much greater emphasis on developing reasoning processes (e.g., problem solving, analysis, critique, synthesis) through the vocational education curriculum and instruction. To many people, vocational education's recitation of the value of only its "hands-on" experience is self-condemnation.

What Unique Purpose Should Vocational Education Have in the Secondary School?

The preceding paragraphs identified ways in which vocational education is or could be similar to other curricular areas in the secondary school. This question about the unique purpose of vocational education forces a somewhat arbitrary distinction but is concerned with the ways in which vocational education, more than other areas of instruction, fosters student development. Work of the study group indicates that vocational education should make a special contribution to students' education in several ways:

1. Helping students seriously consider what they want their life to be like--how work itself and interpersonal relations in the workplace and in the family can contribute to an integrated and meaningful sense of self and community. The point here is not career exploration (although that is important, also) but the understanding of the role of work in one's life. The process of examining work rewards and their relation to one's enjoyment of life should be part of the content of vocational education.

2. Increasing rather than decreasing occupational opportunities for students. Vocational education can expand students' knowledge of occupational opportunities available to them, and it can help them imagine the unimaginable for themselves. Vocational education can serve to develop students' awareness of their previously hidden talents and an understanding of how those talents can be used and rewarded in the world outside of school. One type of accomplishment

historically claimed by vocational education is that of developing students' skills so that they can, as Snedden said, enter a "vestibule to a vocation." Skill training increases occupational opportunities for students most when it develops basic understandings related to the skills and when these skills are generalizable to a variety of work situations and requirements.

3. Nurturing students' pride in and enjoyment of work by helping them develop technique and an appreciation of technique. Technique is a systematic procedure by which a complex task is accomplished; it is the command of fundamentals involved in performance of an action; it is a method of accomplishing a desired aim; it is "doing it just right." Technique involves a special combination of knowledge, cognitive processing, and sensitivity to materials. Technique develops through practice, and one of vocational education's characteristics historically is its devotion to practice. Vocational education can help students become attuned to the satisfaction experienced when technique is mastered and expressed.

What Questions About the Purpose of Vocational Education in the Secondary School Need Deliberation by Participants in Vocational Education?

A common feeling toward the end of many projects is that of wishing you could begin the project now--now that you have gained the insight that you have. Study group members expressed this feeling as they prepared final copy for this report. Major questions remain far from resolved for study group members--individually as well as collectively. Some of these questions are listed here with very brief comments to suggest the flavor of the dilemmas now perceived.

1. Who should vocational education serve in the secondary school? Ideally, we want to serve all students. The purposes outlined in the past few pages are deemed desirable for all students to experience. The system of tracking students by standardized test scores and class stereotypes perpetuates inequities in society and limits the contributions vocational education can make to students' development. However, because we have limited resources--time, facilities, staff--we sometimes feel as though we can't serve all students and that probably we should be most concerned about students who are least likely to continue their education beyond high school so that they can gain skills which will equip them for employment. An argument for this point of view is that if vocational education does not serve these students, they won't be served

by the public school system and they will be more likely to end up dropping out of school and dropping onto the public dole. Perhaps the question actually is: How can we serve the interests of all students in the school without shortchanging students who are least likely to continue their formal education?

2. How important is the teaching of specific technical job skills in the public school? Should the public school be responsible for teaching specific technical job skills or should employers or should they both? Many employers state that they prefer to do their own training; some vocational educators argue that the technical skills which students develop in school give them a competitive edge in getting jobs. Related to this isssue is the point that it is difficult--perhaps impossible--to learn about various careers and the meaning of work without the experience of learning specific job skills. We might want to teach these specific job skills not as an end in themselves but as a means to career exploration and an understanding of the role of work in one's life.

3. To what extent should vocational education in the secondary school be used to meet the occupation demands ("manpower needs") of society? Is vocational education merely a component in the "training system" for labor? How far can vocational education venture from this image and still expect special funding and attention?

4. To what extent should vocational education direct its efforts towards social reconstruction? Snedden argued that vocational education should not be concerned with reforming society, that that happened in the voting booth. Violas (1981), in contrast, said that "the schools should arm students against aspects of the world of work which lessen the human dignity of workers." (p. 151)

5. To what extent should vocational education encourage students to consider the ethics of their work? Should vocational education encourage students to examine moral implications of their work? To question the ends toward which their work is directed--ends such as equity or inequity, peace or war, beauty or chaos, freedom or enslavement? Should we encourage commitment to fundamentals of a democratic society? What is our ethical responsibility as vocational educators and what is the ethical responsibility of those whom we educate?

6. Does the public value vocational education in the school curriculum? Too often vocational education seems to be regarded as a second-rate operation in the school, just as students enrolled in vocational education programs fre-

quently are considered second class. Can/should vocational education strive to dispel these beliefs? If so, how? What are the consequences of not doing so?

7. Is "vocational education" an appropriate label for the field? Considerable debate has occurred over the terms "training" and "education." The question has been: Should training or should education be the focus of the field? A far more important question might be whether or not "work education" ought to be substituted for "vocational education." What special meaning goes with the use of the term "vocation?"

8. If work education is to become part of the secondary school curriculum, who should be responsible for it? Should teachers of other subjects teach work education? Should vocational teachers teach work education? Are they up to the task?

9. What would happen if vocational education disappeared from the public secondary school curriculm? Would anyone lose? Who would lose? What would they lose? One short-term consequence of eliminating vocational education from the secondary school would be that many vocational educators would lose their jobs. Another more serious consequence that seems very likely is that many students would drop out of high school because they would find it difficult to relate to the curriculum which would remain. What would happen to these students? Would they be from families who already are most disadvantaged economically, socially, and educationally? What are the long-term consequences for students and for society?

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Epilogue by Harry F. Silberman

The study group was pleased to have the opportunity to present a Symposium--Perspectives on the Purposes for Vocational Education in the Secondary Schools--for the American Vocational Education Research Association during the 1985 AVA Convention. This symposium focused on the themes of the study group's report and Harry F. Silberman, University of California at Los Angeles, participated as discussant. The study group requested the opportunity to publish Dr. Silberman's remarks as an epilogue to this report and is grateful for his consent. We trust the reader will find his comments stimulating as we did.

I feel a little bit like an outsider who just joined a conversation that has been going on for a year and who doesn't quite understand what is being discussed. Nevertheless, I have read the material that has been presented and shall make a series of "random" comments.

First, this is an instance of student-faculty collaboration that in itself is an interesting educational procedure. Professors seldom involve themselves as equal partners with graduate students on long-term collegial projects of this kind; I think much learning has occurred here.

Second, I thoroughly enjoyed the literature review and urge you to write for it.

Third, with regard to the definition of purpose, Clark Hull once defined it as a fractional anticipatory goal reaction. He said that it was a pure stimulus whose only function was to guide behavior. It is an incipient part of a previously completed goal response that has come to influence the sequence of actions leading to the goal. This definition is interesting in that purpose grows out of experience. You can't have a purpose which you have not yet experienced; this has some broader implications with respect to the goals of teachers who haven't been out in the work place. One of the recommendations of our Commission on Secondary Vocational Education was that the certification of all teachers include a requirement for a work experience record of demonstrated mastery in their field.

Fourth, it was interesting to contrast the range of purposes of secondary vocational education that emerged from this historical review with that which we obtained from testimony in our recent Commission hearings. The historical review has revealed as much greater variety of purposes, for example, such outcomes as aesthetic expression, individual integrity, and the development of a

heightened sense of altruism. Perhaps the social and political character of a 1984 setting imposes a greater constraint on the range of purposes than we realize. The recent emphasis on excellence and achievement test scores may narrow the scope of our rhetoric and rule out purposes that are inconsistent with temporal themes. An historical review gives a broader perspective.

Fifth, there is often a discrepancy between stated purposes and educational practice. There is a sharp contrast between our carefully defined purposes, for all of their accompanying rationale, and what one observes in the classroom. Even when teachers are asked to describe the purposes of classroom activities that have just been completed, it is difficult to make the connection. One conclusion is that the purposes of educators are statements of fundamental moral and political beliefs, while our educational practices are often governed by forces that are beyond our control. Purposes are also sometimes wishful thinking or serve as a form of self-justification.

Purposes serve many functions. If our actions don't coincide with our broad purposes, we can at least extract some comfort from our good intentions. Thus, in the face of limited evidence of specific program outcomes, we persist in the vague claim that our purpose is to "build character" or to produce "men." On the other hand, many teachers will define their purposes in very narrow and specific ways because it allows them to match those purposes to the teaching practices they are able to control. The distinction between education and training often refers to the specificity of learning outcomes. Education refers to outcomes and methods that are more difficult to define. When the science or technology of education reduces some aspect of teaching to a replicable formula for attaining specificable outcomes, then it becomes training. Many teachers may adopt training rather than educational goals because it removes the discomfort of a discrepancy between ends and means. Training purposes match the teachers' methods and outcomes even if those teachers are not satisfied with the depth of that accomplishment. In short, narrow training objectives serve as one form of self-protection, lofty educational purposes serve as another. Purposes can insulate us from the depressing reality of practical expedience. They can also reaffirm our values. Perhaps that is why debates about purposes are seldom resolved by empirical research; they are simply expressions of faith in the relationship of education and the good life. That may also explain why the findings of a task force or commission may be so readily predicted by the

composition of its membership; the values and ideals of the members influence the reality that is perceived.

Sixth, the symposium has emphasized the contradictions in our aims for secondary vocational education, whether to serve all students or the least able, to teach job specific skills or general skills, to provide society's labor supply or to maximize individual development, to protect the social heritage or to stimulate social reconstruction. It is the contrast within each dichotomy that makes us aware of the need to shift attention to the side that is neglected. For example, the tension between equity and excellence becomes a cybernetic loop. We focus on equity for a decade and that builds a set of counteractions that change the emphasis back to excellence. In another decade we can expect this cyclic effect to shift the pendulum back to equity again. The tension between general liberal arts and vocationalism seems to follow the same pattern.

Although I kept looking for the papers to provide unequivocal answers to these dualisms, I knew that they have not answers, that they are not mutually exclusive. We must have equity and excellence; every young person has the right to experience the best of academic and vocational education for the sake of the individual and of society, for both immediate and deferred benefits.

My seventh, and final, remark is that the purposes discussed in this symposium were for the most part the purposes of parents, educators, or policy makers, not the purposes of individual learners. I think purposes to which we must be more sensitive are those which reside in the minds of the learners. For all of our efforts to establish purposes, individual differences in the purposes of our student will determine whether we will succeed. Each of our students has his own set of purposes. I think that John Dewey was right that "the ends are inherent in the means," but only where the ends are of the student's making, and only where the means are of the student's making rather than those of the teacher, for it is the student who determines what is learned. The sooner we recognize that the better.