FACILITIES PLANNING

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vo-tech / CONTINUING INFORMATION PROGRAM

SCHOOL OF EDUCATION • STANFORD UNIVERSITY • STANFORD, CALIFORNIA
The School Planning Laboratory, School of Education, Stanford University, produced operation of the United States Office of Education for the purpose of exploring new forms of Vocational and Technical education.
oratory, School of Education, Stanford University, produced this report with the co-
States Office of Education for the purpose of exploring new facilities developments in
education.
PROGRAM CONSIDERATIONS

SOME OF THE MAJOR CONCERNS FACING VO-TECH EDUCATION, PRESENT AND FUTURE

INCREASED DEMAND FOR VO-TECH EDUCATION

"Technological change and the ensuing automation of many economic activities have not only off the farm but in all types of industry in this country. The shift of employment has placed great demands on our educational systems and institutions to assure our future educational background which will be suitable to the world of work they will find upon graduation.

"One fifth of all American families live on less than $3000 per year income and 12% live on less than $2000. Of this poorer group, 54% live in the cities and 16% on the farm. The number of rural non-farm residents such as those in the great Appalachian area. We have approximately 5%, but the present rate among our teenagers is 1%. The Negro teenagers is approximately 30%. Some 750,000 to 800,000 teenagers are un

"Even though we have increased federal funds in the vocational education program from $13 million to $159 million, WE HAVE NOT YET FILLED THE NEED IN OUR VOCATIONAL EDUCATION PROGRAM FOR EVERY CITIZEN OF AN OPPORTUNITY FOR THE TRAINING WHICH OUR ECONOMY AND INDIVIDUAL NEEDS TO REALIZE HIS FULL POTENTIAL.

"It is estimated that by 1970 we will have about 87 million people at work in this country. Approximately 58 million of the people now employed will need their skills upgraded. It is not only to the vocational education leadership, but also to all educators."

Delivered: Los Angeles
January, 1965
SECTION 2

CONCERNS FACING VO-TECH EDUCATION, PRESENT AND FUTURE:

FOR VO-TECH EDUCATION

and the ensuing automation of many economic activities have created job dislocations in all types of industry in this country. The shift of employment from farm to city depends on our educational systems and institutions to assure our rural youth of an education which will be suitable to the world of work they will find upon graduation.

Many families live on less than $3000 per year income and 12% live on an income of less than $1500. This poorer group, 54% live in the cities and 16% on the farms and about 30% are in areas such as those in the great Appalachian area. We have an unemployment rate in many rural areas of approximately 5%, but the present rate among our teenagers is 14% and the rate for our young people is approximately 30%. Some 750,000 to 800,000 teenagers are unemployed today.

Increased federal funds in the vocational education program from approximately $47 million in 1960 to $550 million in 1969 have not yet filled the need in our vocational schools to assure opportunity for the training which our economy requires and the individual to realize his full potential.

In 1970 we will have about 87 million people at work in this country and that approximately 30% of the people now employed will need their skills upgraded. It is a great challenge, not only to education leadership, but also to all educators.

Carl D. Perkins
U. S. Representative
Kentucky
INCREASED NEED FOR VO-TECH EDUCATION

"Automation, cybernation, increasing output per manhour, reducing manhour requi-
duction—it all adds up to the same thing. You need less manpower to get out a give

"Here is an example—because every one of these things is happening right now,
more cars than in 1955, the previous record year, but we did it with 18 percent fewer

"In 1964 we had more people employed, they worked longer hours, the average
$103 a week. You name it: we made a record. But unemployment among young peo

"In 1963 the unemployment rate among teenagers was 250 percent of the national
rate to 285 percent of the national rate.

"It's no longer a neat, stable world where you can take young people and give them-
vocational education that will fit them snugly into a nice job slot. For better or for

"VOCATIONAL EDUCATION IS THE PROCESS WHICH HELPS PEOPLE AT ALL AGES OF
DEVELOPMENT TO WITHSTAND THE INEVITABLE CHANGES THAT ARE GOING TO OCCU-
TIONSHIP BETWEEN WHAT THEY LEARNED AND WHAT THEY ARE GOING TO BE ON
THE WORLD OF WORK."

Seymour Wolfbein
Deputy Manpower Ad
Office of Manpower,
U.S. Department of La

Delivered: Los Angeles
January, 1965
increasing output per manhour, reducing manhour requirements per unit of production is the same thing. You need less manpower to get out a given unit of production.

because every one of these things is happening right now—last year we put out the previous record year, but we did it with 18 percent fewer workers.

people employed, they worked longer hours, the average factory wage was up to we made a record. But unemployment among young people went up! national rate among teenagers was 250 percent of the national rate. By 1964 it was up national rate.

stable world where you can take young people and give them some lovely form of will fit them snugly into a nice job slot. For better or for worse, it’s not that way.

IS THE PROCESS WHICH HELPS PEOPLE AT ALL AGES OF THEIR EDUCATIONAL STAND THE INEVITABLE CHANGES THAT ARE GOING TO OCCUR IN THE RELATION THEY LEARNED AND WHAT THEY ARE GOING TO BE CALLED UPON TO DO IN

Seymour Wolfbein
Deputy Manpower Administrator and Director
Office of Manpower, Automation, and Training
U.S. Department of Labor
INCREASED USE OF NEW TECHNIQUES IN VO-TECH EDUCATION

"There is a need to commit ourselves totally to a new concept of vocational education. It must be possible for any one to become qualified for gainful employment—no matter what his background is or wherever he comes from his growth environment into the world of work. The other side of this equation is that the entire economy will be helped by reaping the benefits of advancing technology.

"It is obvious that education in this country, both formal and informal, is totally integrated into the economy which is burgeoning from one end of this land to the other. Vocational education is one of the other forces within the economy. The development of skill and technical knowledge is a great asset to a dynamic and age, the total effort of the nation bears a direct ratio to its investment in human capital. Vocational education is often referred to, correctly, as one of America’s greatest resources.

"There is certainly general agreement among educators and others concerned with the future that modern life holds few berths for the uneducated and the poorly prepared. Yet vocational education has simply been inaccessible to too many people.

"The new Vocational Education Act is really new. It does not represent merely a restatement of the old. It represents a new era. It is expected to stand still. The world of year 2015 will be as different from this one as it is predicted to be. The world of year 2015 will be as different from the world of year 2015 as it is to be when our great-grandfathers were young. This is no time to be looking backward with fond memories of the little red schoolhouse—or even the days of the big red brick schoolhouse. It is time to make a determination about what vocational education should be like, and must be in the future.

"A TOTAL BALANCED PROGRAM OF VOCATIONAL EDUCATION SHOULD BE AVAILABLE IN THE UNITED STATES."

Delivered: Stanford University
November, 1965
TECHNIQUES IN VO-TECH EDUCATION

Submit ourselves totally to a new concept of vocational education—to new directions. It means to become qualified for gainful employment—no matter what handicaps he carries from his childhood environment into the world of work. The other side of this coin is that the end is met by reaping the benefits of advancing technology.

Vocational education in this country, both formal and informal, is totally involved in the dynamic movement from one end of this land to the other. Vocational education's contribution to the development of skill and technical knowledge is a great asset to a dynamic economy. In this day and age, the nation's well-being depends on the nation's investment in human resources. Hence, future referred to, correctly, as one of America's greatest resources.

I agree with the educators and others concerned with the nation's young people's need for the uneducated and the poorly prepared. Yet vocational education has a direct relation to that need.

The Vocational Education Act is really new. It does not represent merely a regrouping of educational and technical fields. The Act recognizes that a complex technology cannot be expected to take root in the world of year 2015 will be as different from this one as 1955 is from the time when teachers were young. This is no time to be looking backward with yearning to the days of yesterday—or even the days of the big red brick schoolhouse. It is time to look ahead—about what vocational education should be like, and must be like, in a dynamic economy.

PROGAM OF VOCATIONAL EDUCATION SHOULD BE AVAILABLE TO EVERY COMMUNITY...

Walter Arnold
Assistant Commissioner of Education
Vocational Education Services
U.S. Office of Education
TO BUILD THE RIGHT SCHOOL IN THE RIGHT PLACE AT THE RIGHT TIME . . .

THE PLANNING TEAM MUST

IDENTIFY

The present and future facility needs of the community through the development of a community master plan.

DEVELOP

Design objectives which will provide the architect with basic detail for the development of a design concept for a Vo-Tech master plan.
Design objectives which will provide the architect with basic detail for the development of a design concept for a Vo-Tech master plan.

The Vo-Tech program needs of the community as they relate to the present and future facility utilization through the development of educational specifications.
FIRST, IDENTIFY

The facility needs of the community, present and future, through the development of

A COMMUNITY MASTER PLAN

- Appraisal of existing buildings
- Analysis of present building use
- Evaluation of community growth patterns
- Enrollment projections
- Projection of facility needs
- Projection of site requirements
- Site location recommendations
- Development of time line properties
- Assessment of community financial resources

SECOND, INTERPRET

The present and future Vo-Tech educational program needs of the community through the development of

EDUCATIONAL SPECIFICATIONS

- Survey of present educational program
- Analysis of trends and innovations in educational programming
- Implications of program for design objectives
- Compilation of detailed educational specifications with architectural implications
- Continuous liaison with community and architect
SPACE CONSIDERATIONS IN VO-TECH FACILITIES PLANNING

The impact of technological innovation and new teaching methodology in education requires new types of Vocational and Technical teaching spaces. They can be categorized as follows:

1. Instructional spaces
2. Production laboratory spaces
3. Communication and resource spaces
4. Spaces for specific "job training" programs
Prior to the development of specific spatial considerations, student and community needs must be incorporated into the program. Student activities both within the facilities and outside school walls must be carefully defined.
ic spatial considerations, student and community the program. Student activities both within the must be carefully defined.
INSTRUCTIONAL SPACES

COMMUNICATION RESOURCE SPACES

DESIGN

PRODUCTION

MATERIALS
INSTRUCTIONAL SPACES provide for student-teacher contact within the context

The educational processes housed in the instructional space they have always been:

1. Perception and discussion
2. Skill development
3. Learning by doing

...and they should provide space for independent student research...
SPACES provide for student-teacher contact within the context of formal education.

The educational processes housed in the instructional spaces will remain essentially what they have always been:

1. Perception and discussion
2. Skill development
3. Learning by doing

and they should provide space for independent student research and study.
PRODUCTION LABORATORY SPACES provide for the development of production techniques where student study materials properties and production processes. Each should be related to the utilization of modern techniques in teaching. The traditional foundational concepts of Vo-Tech education should be related to the assembly and equipment in building relationships. Each should be related to the assembly and equipment in building relationships. Each should be related to the assembly and equipment in building relationships.
SPACES provide for the development of production technique on the part of the student.

The traditional foundational concepts of Vo-Tech education must find new expression in building relationships. Each should be related to the aids center—to better utilize modern techniques in teaching.
COMMUNICATION AND RESOURCE SPACES provide for the conception, development, and communication aids to instruction.

The incorporation of aids and their media into the instruction process facilitates the production of supporting materials. This production of extensive operation geared for slides, motion pictures, and taped television programs.

SUCH PRODUCTION WILL BECOME A TEACHING TOOL IN ITS
ID RESOURCE SPACES provide for the conception, development, and production of the communication aids to instruction.

The incorporation of aids and their media into the instructional process necessitates the production of supporting materials. This production may become a very extensive operation geared for slides, motion pictures, models, or complete live and taped television programs.

**SUCH PRODUCTION WILL BECOME A TEACHING TOOL IN ITSELF.**
SPACES FOR SPECIFIC JOB TRAINING PROGRAMS

Production laboratory spaces should be designed for multiple use by specific job training and retraining programs and by the “acquaintance” level in the generalized instructional program.

Any space devoted to specific job training must be open to modification as program needs change. Programs are changing dramatically in modern schools, and facilities must be flexible to meet them.
THUS, A TEAM EFFORT IS NECESSARY

FOR BETTER VO-TECH FACILITY PLANNING
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