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The development of understandings, attitudes, and appreciation appropriate for selective state and local vocational-technical educators, guidance personnel, general educators, and federal personnel with potential responsibilities for residential vocational education programs comprise the focus of this conference. Working papers which were presented as a basis for conference discussion included: (1) "Developing a Philosophy of Residential Vocational Education" by William T. Logan, Jr., (2) "Facilities-Residential, Education, and Student Services Facilities for Students in Residential Vocational Schools" by James M. Hughes, (3) "Geographical locations for Residential Vocational Schools" by J. Clark Davis, (4) "Selection and Evaluation of Students for Residential Vocational Schools" by Merrel R. Stockey, (5) "Student Life, Counseling, and Guidance for Students in a Residential Vocational School" by Kenneth B. Hoyt, and (6) "Curriculums, Course Objectives, and Instructional Materials for Students in Residential Vocational Schools" by Jim L. Moshier. A related document which includes summary papers by the consultants who presented the initial working papers is available as VT 009 087. (CH)

Consultants' Working Papers

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NATIONAL CONFERENCE FOR RESIDENTIAL VOCATIONAL EDUCATION

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OKLAHOMA STATE TECH
THE OKLAHOMA STATE UNIVERSITY
SCHOOL OF TECHNICAL TRAINING
Okmulgee, Oklahoma

MARCH 28, 1969

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U. S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
OFFICE OF EDUCATION
BUREAU OF RESEARCH

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NATIONAL CONFERENCE FOR RESIDENTIAL VOCATIONAL EDUCATION — 1968 AMENDMENTS

Introduction

The Vocational Education Amendments of 1968 under Part E provided for a Residential Vocational Education program. The program is designed to serve youth who need full-time study on a residential basis and who can profit from vocational education institutions. The establishment and operation of residential education schools designed to meet the needs of substantial numbers of youth who have dropped out of school and/or who are unemployed, will be a challenge to vocational education leadership.

Strong, capable, and well informed leadership at the local, State and National levels continues to be a critical factor in development, extension, and implementation of the residential vocational education program.

The purpose of the project will be to present a 3-day conference designed to develop understandings, attitudes, and appreciation appropriate for selected State and local vocational-technical educators, guidance personnel, general educators, and others with potential responsibilities for residential vocational education programs. An anticipated outcome will be to further the abilities of each participant so that he may function more effectively at his level of responsibility in his area of activity, and to assist him in guiding or conducting the program.

New policies and procedures will be designed to implement the intent of Congress, action programs will be developed and put into effect through the knowledgeable leadership of State and local personnel.

A significant contribution can be made to new rules and regulations, planning and programming the improvement and effective implementation of vocational-technical programs through the conferences as proposed herein.

The overall goal of the Conference is to expand the capability and understanding of selected State and local educators, together with Federal personnel, charged with responsibilities for comprehensive development of residential vocational education programs. The specific objectives of the national conference are:

1. To assist local, State, and Federal vocational education leadership to understand the challenges inherent in the establishment and operation of a residential vocational education school designed to meet the needs of substantial numbers of youth who have dropped out of school or who are unemployed.
2. To develop an understanding of the type of services required by the students, such as: housing, medical, dental, guidance, social, civics. personnel and group activities that will contribute to good citizenship and social competence of the students.
3. To explore the type of curricula of such a school and the variety of adaptation necessary to meet the needs of each individual student.
4. To look into the social and behavioral problems of youth who will need counseling and guidance in a residential school.
5. To develop an increased understanding of the problem of meeting the needs of youth with economic, social, academic, cultural, physical or psychological handicaps.
6. To prepare a summary paper for presentation at the nine regional vocational education conferences.

The conference is designed to gain involvement of the leadership in this field at State and local levels, and to increase understanding of the 1968 Amendments concerning residential vocational education. Through increased knowledge and deeper understanding, decision making will be strengthened with resultant benefits to vocational-technical education at all levels.

NATIONAL CONFERENCE
RESIDENTIAL VOCATIONAL EDUCATION

Oklahoma State University School of Technical Training
Okmulgee, Oklahoma

WORKING PAPER

On

THE ROLE OF THE CONFERENCE

Wayne W. Miller
Principal Investigator

February 26, 27, 28, 1969

THE ROLE OF THE CONFERENCE

Wayne W. Miller

For nearly twenty-three years this residential branch of the Oklahoma State University has advocated, promoted, and worked diligently to successfully operate a residential vocational school. To those of us who have seen this campus become the largest two-year campus in Oklahoma, a state with many state supported colleges and universities, it is indeed confusing and alarming that we should just now be involved in developing national guidelines for a national network of similar schools.

In a nation whose landscape has, since the 17th century, been covered with in-residence post-secondary academic educational institutions, it is indeed strange that none, or terribly few, of these campuses have specialized in vocational technical education. Why have we waited so long to give this necessary phase of education the pleasure of prestigious, student maturing campus life? Was the blacksmith any less important in the days of our forefathers than is the highly specialized automotive service technician of today?

There is time only for a questioning glance backward. We are gathered here to exchange ideas and to develop meaningful guidelines for the long look toward the future — **residential** vocational education at its best. Perhaps what we say here this week and much of that we have accomplished on this campus for more than twenty years will form the ammunition for a shot of knowledge, interest, and enthusiasm that will be heard by those who prepare national educational budgets. We must develop a plan befitting the interest shown in legislation that has set forth residential vocational education as an important part of the Amendments (1968) to the Vocational Education Act of 1963. Yes, I am speaking of Part E of Public Law 90-576.

It is not expected that these yet-to-be-written guidelines will exactly duplicate the Oklahoma State Tech operation. This site was selected for the national conference, however, because Oklahoma State Tech has for many years successfully served in residence a wide variety of people in great numbers. Many of my remarks will be for the purpose of basic orientation in conjunction with campus tours today. These tours are not for the purpose of exhibiting brick and mortar. These tours are to offer you an opportunity to see and meet the type of students who come from far and wide to avail themselves of quality residential vocational-technical education. These visits will be for the purpose of permitting you to fully understand an educational philosophy — to see in action the advantages of a concentration of specialized instructors and large amounts of expensive training equipment that attract large numbers of students who, as graduates, attract large numbers of potential employers.

We shall not make any attempt to say that every building and shop arrangement on this campus should be used as an example — quite the opposite in many instances. When there was little or no interest in, and surely no money for, residential vocational education, the President of the Oklahoma State University, the late Dr. Henry G. Bennett, agreed to take possession of this former Army General Hospital for the price of $1.00 for the purpose of offering non-degree granting post-secondary education to the returning GI's of World War II. Many Oklahomans, perhaps even most of our state neighbors, did not believe the school would exist beyond the needs of these veterans. President Bennett sent to be the first Director of this school a dedicated vocational educator who had no ideas **other** than permanency for this school. My predecessor L. K. Covelle carefully se-

lected several staff members who shared this feeling — who saw the need. We came here in the fall of 1946 — and several of us on that original staff are here today.

We have seen thousands of students, both young and old, from all walks of life find a useful place in society. You will meet one or more of these early-day graduates — and perhaps wonder if some of us original staff members should not have used our GI Bill benefits and enrolled as students. We might now enjoy salaries that more than double that of a Director's pay. But no missionary ever accepted the call for money only. I have said many times we are, and have been for twenty-three years, educational missionaries. Welcome to the mission!

Vocational education cannot — even residential vocational education cannot — solve all the social and unemployment problems of our great nation. Perhaps some of our associates have at times left this impression. To be sure, there have been those not in vocational education who have asked this of us — after spending millions of dollars on other programs. We have only to look about us to see that some people will not conform to an educational program leading to useful work — nor will they work regardless of the dollars available to them. Many free educational programs with living expenses paid have failed to reach a certain percentage of the population. I hold here a newspaper clipping — "Steady Job at $150 a Week May Not Hold Hard-Core Unemployed Worker" — But let me loudly proclaim, we have served and can continue to serve in residential vocational education, a vast proportion of the population that has been virtually overlooked.

We boast of the disadvantaged we have served on this campus — from the poorest of Indians along Saline Creek in Cherokee land and the poor Choctaw farm in Mississippi. The wheelchair polio victim and the shrapnel torn GI of World War II we have seen find places in industry following occupational education. From the poorest worn out cotton farm in central Oklahoma to the Negro community of Tulsa or Memphis, Tennessee, we have seen students enroll here and enjoy the fellowship of campus living and later graduate into a useful life. **It is my firm conviction that residential vocational education cannot be successfully operated for the socio-economically disadvantaged only. There must be a blend.** There must be the conforming good student to set the pattern of behavior and learning that industry demands. In your group today are employers who regularly recruit on this campus. In your study groups you will hear them tell how they have utilized both the "4.0" and "2.0" students.

With the aid of our outstanding consultants, and you knowledgeable nation-wide participants, we shall define the characteristics of a student body that fits the description of residential vocational education legislation. It is no more practical to build a walled public school only for the severely disadvantaged of society than it would be to assign all the day-by-day operations of this city of 18,000 to only medical doctors. They are intelligent, important, needed people — but they do not possess the mixture of skills, ideas, attitudes, and desires that are needed for a total community. What is a "total" vocational student body?

We have seen for years on this campus the good, the bad, the white, the brown, the black, the healthy, and the physically limited live together and study together twenty-four hours of each day.

Each consultant may feel at this point that I plan to solve all the problems of the conference — far from it — but hopefully my remarks will place before us the charge — the responsibility that is ours for this conference. We daily live residential vocational education. We know it will work. We want each state to be served by a similar school. We seek and need the dollars to truly make this a pattern campus, a place where both craftsmen and potential supervisors of craftsmen may continue to study together rather

than being misguided into academic post-secondary programs because of the degree image — or fail to attend any school for lack of motivation and dollars.

In recent years of greatly increased interest in vocational education, we have used the term "make vocational education available to everyone." Many persons have interpreted this phrase to mean that every citizen should be able to look out his window and see a vocational school. It has been our contention since the early days of the Vocational Education Act of 1963 that making vocational education available can and should be answered partly through residential vocational education. The wise use of our dollars demands it. The need for quality education demands it. The desires of prospective students demand residential vocational education.

IN THE FINAL ANALYSIS WE SHALL NOT BE MEASURED BY HOW MANY VOCATIONAL SCHOOLS ARE CONSTRUCTED IN THE UNITED STATES BUT BY THE PERFORMANCE OF EMPLOYED GRADUATES FROM A GIVEN NUMBER OF QUALITY SCHOOLS.

We must see Part E of Public Law 90-576 funded. Our charge — to write acceptable guidelines — guidelines that will cause us to see a national program of vocational education institutions that truly fill the void between secondary and collegiate academic education.

The residential school can and must serve the needs of the disadvantaged whether he be a drop-out or a disillusioned product of an inadequate national education program.

Thank You.

NATIONAL CONFERENCE
RESIDENTIAL VOCATIONAL EDUCATION

Oklahoma State University School of Technical Training
Okmulgee, Oklahoma

WORKING PAPER

On

DEVELOPING A PHILOSOPHY OF RESIDENTIAL VOCATIONAL EDUCATION

William T. Logan

February 26, 27, 28, 1969

DEVELOPING A PHILOSOPHY OF RESIDENTIAL VOCATIONAL EDUCATION

William T. Logan, Jr.

I am William T. Logan, Jr., Commissioner of Education for the State of Maine — with headquarters at Augusta, Maine. I have been asked to speak on developing a philosophy of residential vocational education. I have wondered why the planners of this conference went to the northeasternmost corner of this nation to get a non-vocational educator to present this subject. I can only conclude that I am an expert on this subject for two reasons: (1) I come from almost two thousand miles away, and (2) I am the administrator for four residential post-secondary vocational-technical institutes at the present time.

If I am to get at my task, I should refer to the legislation which promulgated this meeting. According to the Vocational Education Act of 1968, a **residential vocational education school** MEANS any public school or public institution offering full-time vocational education on a residential basis to youths age 14 to 21. It also defines **residential school facilities** as a school facility used for residential vocational-education purposes. Such a term includes dormitory, cafeteria and recreational facilities — and other such facilities as the U. S. Commissioner of Education determines are appropriate for residential vocational-education schools. The term **operation** is to mean maintenance and operation and includes the costs of salaries, equipment, supplies, and materials and may also include, but is not limited to, other reasonable costs of services and supplies needed by residential students, such as clothing and transportation. With this background information on what this legislation defines as residential vocational-education, I should like to express my concern for the **need** for Residential Vocational-Education.

One brings to occasions like this his personal experiences, prejudices, and the residue of his readings on the subject. As a New Englander who attended schools in the post World War I period and through the Great Depression, I saw vocational education develop in the industrial communities of my region. I was not pleased with what I saw because the classical scholars who controlled public education wanted no part of vocational education and, as a result, separate trade schools were established which were unconnected to the regular system for general and college preparatory programs. These institutions became the "Social Siberias" to which the academicians "dumped" their unwanted young people. The trade school system, for the day student who could commute, worked well as long as immigrant parents saw these institutions as a way out of the world of unskilled manual labor for their children. But the next generation did not hold trade schools in high esteem. Trade school graduates who had been ostracized by their peers in their school days wanted their children to attend college preparatory schools.

When I became a rural superintendent of schools in Vermont and later Commissioner of Education in the State of Maine, I became concerned that our rural, sparsely settled state did not offer to our widely scattered young people the opportunity to experience vocational education except in vocational agriculture and home economics courses. These youngsters were as important as their urban and suburban counterparts, yet they were being deprived of their basic rights to develop their God-given talents because of an accident of birth or residency which did not provide the financial basis for broader vocational programs.

It became obvious to me that the children living on islands off our coast and in the vast wildlands that make up 47% of our state must be giv-

en a residential facility if they were to ever have the chance their urban brothers had. For this reason, the State of Maine, with some financial aid from our Federal Government, now operates four post-secondary vocational-technical institutes at as low a cost per pupil as possible with a scholarship program for our most needy. A fifth vocational-technical institute is underway in Washington County — our Appalachia — with the concept of a consortium with the public school system in Calais. It is our hope — and I believe the only answer for the youth of this area — that we can bring young people, under the provisions of the Vocational Act of 1968, to a residential center with the secondary program operated in conjunction with the comprehensive high school of that community and the post-secondary residential facility operated by the State to provide several levels of training to a young population doomed to become pulp cutters or sardine packers unless we raise their marketable skill level so that great human resource can be fully developed.

Whereas I know Maine well, I am sure that in the Great Plains and the vast far West and our newest states of Alaska and Hawaii there are duplicate situations where rural, isolated youth will suffer from neglect unless residential vocational facilities are made available to them. My colloquial references are for emphasis. Any of you can substitute children and localities in your own states for mine.

I have purposely avoided the problems of the urban child who needs a residential facility to escape the social and economic blight of a home which discourages him from attending available vocational programs. The urban child has many choices, if he gets the proper guidance, and the residential vocational school is but one of many which can meet his needs.

We need residential centers for two basic reasons: (1) There are children who cannot attend vocational schools because of their geographic isolation or home environment. (2) Vocational education costs fantastic amounts of money, and consolidation of programs, equipment, staff, and facilities assures the widest range of offerings at the least investment of resources.

It is no secret that vocational education — in spite of the various national committees and commissions which have studied this field, in spite of prestigious advisory committees who have seen its worth, and in spite of manpower surveys and industrial recruiting programs—has held a low place in the educational hierarchy. At this time, only one Chief State School Officer came to state leadership from the vocational field. There are few high school principals, fewer superintendents, and almost no guidance counselors who rose in administrative rank from the vocational area. If a university is a series of buildings connected by a central heating plant, a vocational center is not even on campus — and is heated with a pot burner! Our university brethren look down on vocational education. It does not possess glamour, and the one- and two-year students on university campuses which operate this type of program are never in the mainstream of campus life.

Therefore, there are many advantages to the residential vocational-education schools which this legislation proposes funding.

A residential school provides a campus life where youth learn to work with others — which is essential to productive labor — as well as mastering vocational skills.

Residential schools provide for the worthy use of leisure time in sports and recreational programs and therefore assist in developing meaningful citizenship.

Residential facilities provide an opportunity to develop personal social adjustments while temporarily separated from parental authority.

Faculty members of residential schools usually treat their students as first-class citizens and these institutions are the only places where skilled artisans and technicians are regarded as important members of the economic system.

Residential programs provide wider horizons for our young people. They are not limited to employment opportunities in strictly local firms or occupations.

Residential facilities provide opportunities for youth to experience a wide range of very specialized and expensive training programs at locations to which they could never commute.

"Going away to school" is a symbol of success in this era of American life. A residential school provides this ego builder.

Residential programs concentrate on youth with skill aptitudes and vocational desires and assist potential employers to encourage youngsters to move into fields and to locations beyond their previous limited horizons.

Residential schools provide time for study and recreation — as opposed to time wasted in commuting — which is a serious matter in states like mine which have at least five months of hazardous driving conditions.

I have tried to define a residential vocational-education school as the Vocational Education Act of 1968 describes it. It have tried to stress the need for this type of facility and program for a large segment of our population whose geographic and social environment prohibits the commuter school program from serving it. I have tried to stress a few advantages to this program — the most important of which are financial and social.

Then where is the philosophy behind these arguments? The philosophy of vocational education is older than this nation. It came to us in the Judeo Christian culture. Our forefathers brought it to us from Europe. It came to them from the great guidelines which preserved the Jewish people during their centuries of dispersal and persecution, for it was the Rabbinical scholars of the Talmud who told us centuries ago, "A father who teaches his son not a trade, teaches him to be a thief."

This nation has a moral obligation because our schools serve "in loco parentis" (in the place of the parent). We must provide opportunities for vocational education to all our youth.

The residential vocational-education school is the only answer for many of our young people who shall never know the joy of self-fulfillment unless they have the opportunity to attend a residential vocational-education school and achieve the satisfaction of acquiring a marketable skill which leads to productive life and good citizenship as a contributing member of society.

NATIONAL CONFERENCE
RESIDENTIAL VOCATIONAL EDUCATION

Oklahoma State University School of Technical Training
Okmulgee, Oklahoma

WORKING PAPER

On

FACILITIES – RESIDENTIAL, EDUCATIONAL, AND STUDENT SERVICES FACILITIES FOR STUDENTS IN RESIDENTIAL VOCATIONAL SCHOOLS

James M. Hughes

February 26, 27, 28, 1969

FACILITIES — RESIDENTIAL, EDUCATIONAL, AND STUDENT SERVICES FACILITIES FOR STUDENTS IN RESIDENTIAL VOCATIONAL SCHOOLS

James M. Hughes

Planning a campus or an educational facility involves the talents and energies of a number of professionals. It requires a team of experts who contribute in the spirit of team action toward achieving the desired goals.

There are actually two teams—the educational team and the architectural team—each of which works independently at certain times while at other times they join together and work collectively as one team. The educational team consists of the administration and staff, educational consultants, advisory committees, state and federal coordinators, etc. The architectural team is composed of architects, planners, landscape architects, civil, mechanical, electrical and structural engineers and various consultants such as food service, acoustical, and interior designers. The architect acts as coordinator and calls upon the talents of each of these professionals as needed throughout the development of the project.

In the development of facilities such as those which interest us here, it is important that all participants in this combined team effort be aware of and understand the various stages through which the project must move toward a successful design solution. The end result is the important thing and will depend largely on how good a job is done at each step along the way.

The procedures which will be discussed here are valid whether the problem involves a totally new campus or an individual building. In order to achieve a comprehensive picture of the total problem, let's assume that the task is to develop a new campus for residential vocational-technical education. There are four major phases in the development of such a project — site selection, programming, master planning and building design.

SITE SELECTION

Problems of the site selection will vary considerably from one situation to the next. One institution, for example, might have a single obvious choice while another might be faced with a decision involving a choice from among several possibilities, each of which could include varying degrees of pressures which tend to influence decisions. Whatever the circumstances, there are certain tests which should be applied to any site so that the final decision will be based on an intelligent and rational evaluation.

Some of the significant factors to be considered in evaluating a site are:

1. **Topography** — The lay of the land. Is it a flat site, gently rolling, or the side of a mountain? Are there any characteristics of the topography which would be assets or liabilities to the development of the campus?
2. **Aesthetic Qualities** — Any natural physical characteristics such as water formations, landscape features, views, which might be good assets to the development of the campus—or which on the other hand might cause real problems.
3. **Soils conditions** — Preliminary soils analysis should be made of any site seriously being considered to determine the ability of the subsoils to support foundation loads. This is not an expensive operation

and is good insurance against the possibility of costly corrective foundation work.

4. **Location** — In relation to the service area of the college — proximity to freeways and expressways.
5. **Traffic generation** — Accessibility. Can roads and streets adjacent to the site adequately handle the traffic to be generated?
6. **Cost of the land** — This is always an important consideration but should not necessarily be the most influential one.
7. **Availability of utilities** — Are public utilities available? If not, how does the cost of building your own sewage plant or water system fit into the overall cost picture?
8. **The relationship to surrounding areas** — What are the present or proposed uses of lands adjacent to the site? Will these be assets or liabilities to the campus environment?
9. **Size** — Expansion potential.
10. **Zoning or code restrictions** — Are there any that would impose undesirable limitations on the development of the site?

Depending on other circumstances, some of these factors will weigh more heavily than others in the final analysis. There are often strong political forces which must be dealt with and sometimes the offer of a free site which may or may not be desirable. Whatever the circumstances, a decision based on a proper evaluation of a site is wise.

PROGRAMMING

Programming is a prelude to design. The design process should never be begun until a complete program for the project has been developed. Programming is problem seeking; design is problem solving.

Programming is a step-by-step analytical procedure. The steps themselves form an orderly framework for the documentation of information coming from many sources and directions. The following steps lead to the statement of the problem:

1. Establish aims
2. Collect, organize and analyze facts
3. Uncover and develop concepts
4. Determine needs
5. State the problem

Let us examine each of the five steps.

1. **Establish aims** — Each institution has particular objectives or goals, and policies for achieving those goals. The team must identify and document goals because they may provide inspiration for the designer. Goals may be stated in terms of the educational program, the site, the budget, and the time element. They should also concern the people who will use these facilities. For example, most students who attend this school will have no further exposure to post high school education. Therefore, what can be done, in addition to training them for useful employment, to help their social and cultural development? A clear statement of goals helps define the uniqueness of this particular project.
2. **Collect, organize, and analyze facts** — Facts by themselves tell us

little. Facts must be organized and analyzed with the project conditions in mind before they reveal their meaning. It is difficult to separate facts from ideas because ideas emerge from analysis of facts within the context of a problem. Facts are collected from a number of areas:

a. Educational program: The educational specifications provide facts regarding the programs to be offered, the numbers of students, faculty, and staff; how the number and kinds of spaces are to be determined; what activities determine the size of spaces; and how state requirements affect the computations.

b. Site: Analysis of the physical, legal, and spiritual aspects of the site needs to be made during the programming process because the site is one of the great form-givers in design. Topography, soil conditions and views are key variables. Off-site and on-site traffic circulation, utilities and details of local climatic conditions are additional factors. Prevailing winds, sun angles, temperature, precipitation and snow, all bear on the design concepts. Investigation of the limitations and possibilities of the site may be based on codes, zoning laws and other legal restrictions.

c. Costs: Facts must be collected regarding local construction costs. Cost figures must assume a quality of construction appropriate to the facility considering maintenance and long-term costs. This is the time to be thorough in anticipating all cost components in the initial budget — including building cost, fixed and movable equipment, site development, fees and contingencies.

d. Time: This element may affect the program, the site and costs. With time, the educational program will change; the college will grow. With time, costs will more than likely rise and must be considered in establishing a schedule for construction phases. With time, the site may be expanded by new acquisitions. The test of time must be applied to find the possible implications.

3. **Uncover and develop concepts** — Concepts emerge from a thorough analysis of facts. They deal with the major educational-architectural ideas that lead to sound and meaningful design solutions. Some facts may weigh more than others and give stronger direction toward the formulation of concepts. For example, large numbers of students may lead to a decentralized educational structure and decentralization of services such as dining, counseling and library. The concept of integrated activities could lead to a family of closely related shops. Growth and phasing requirements might uncover concepts of flexibility, convertibility or expansibility.

4. **Determine needs** — Needs are definitions of space required to carry out the programs and activities of the institution. One of the most important steps in programming is to balance the space budget with the cost budget. Needs must be realistic to achieve high degrees of efficient space utilizations to meet continually rising costs and tighter budgets. To achieve this balance between space and cost, it is often necessary to separate wants from needs; and to base needs on a system of scheduling that will allow for optimum use of all spaces.

5. **State the problem** — The goal of the programming process is to state clearly the major problems which the design must solve. To find the uniqueness and the essence of the total problem we must review all the information documented, starting with the aims and proceeding to facts, concepts, and needs, and then determine the most important statements which can be made regarding the problem affecting the program, site cost, and time.

MASTER PLANNING

Master planning deals with solving problems related to the use of a given site for a particular purpose. In the case of a residential vocational-technical facility the factors include:

1. Building organization and location
2. Vehicular and pedestrian circulation
3. Access
4. Parking
5. Outdoor recreational areas
6. Landscaping
7. Distribution of main utility services

Master planning should be concerned only with major ideas and facts. These can be diluted and clouded by injecting details which should not be considered until later phases of building design.

The organization of building units and their locations on the site will establish the function and flow of the campus. There are many opportunities here for creative and imaginative solutions which respond to the goals and philosophies previously stated. Buildings are created from the listing of space needs for the total campus. The test of how these lumps of space are organized and related to one another will determine how well the plan works.

In most institutions of this type which are funded with state or federal monies there are regulations or guidelines which spell out the amount of space which can be provided for various functions such as lecture and lab spaces, recreation, student activity areas and library to serve a given number of students. These can be organized into building units according to function or they can be decentralized or partially decentralized to weave a fabric of activities that permeate the entire campus.

A master plan should be viable and dynamic. Most campuses can expect growth and change over the years. The plan should establish a framework of open and enclosed spaces which meet the test of goals and facts and which will allow change as change demands.

BUILDING DESIGN

The approach to building design is not unlike that of master planning. The facts and the statements of the problems may be somewhat different or more advanced, but the process toward a design solution should be the same.

In the design of a building there are two phases: schematic design and design development. Schematic design should deal only with major ideas and concepts to establish the general relationships of all spaces and functions to be housed, circulation patterns, structural and mechanical systems and the architectural character. Once the big picture has been established, all of the detail conditions will be worked out in the design development phase.

In the past several years we have experienced new attitudes toward the learning processes and new developments in teaching methods. More will come within the life of a building planned for use today. Therefore, educational buildings should be planned to allow for almost unlimited change within the economic bounds established by the budget. Uniform ceiling patterns with integrated systems for lighting, heating and cooling;

partition systems which are laid out on a modular plan in harmony with the ceiling system and which can be removed and relocated with minimum disturbance to the ceiling plane and the mechanical and electrical services to the spaces; wise choices of structural systems and placement of vertical mechanical and circulation elements to provide as much flexible loft type space as possible; these are some of the systems which can help a building to remain functional through the test of time and change.

Having developed the major concepts in the design of a building the task then proceeds to the design development phase. Detailed floor plans, elevations and building sections are developed. Structural members are sized and clearances for mechanical services are worked out. Equipment lists and layouts are prepared. Appropriate materials and finishes are selected and a detailed cost estimate is prepared. The next steps are the preparation of bidding documents — working drawings and specifications, receipt of bids and the construction phase.

The application of these general procedures to the problem at hand simply means relating the essence of a residential vocational-technical facility to each phase: (1) Selecting a site with physical characteristics and in a location appropriate to the needs of the institution; (2) Identifying the uniqueness of the educational programs and the students and faculty who will benefit from the facility; (3) Developing a master plan which will provide a framework for carrying out the educational programs in an environment which will add to the social and cultural enrichment of the students; and (4) Developing buildings designed for efficiency and flexibility appropriate to their uses.

NATIONAL CONFERENCE
RESIDENTIAL VOCATIONAL EDUCATION

Oklahoma State University School of Technical Training
Okmulgee, Oklahoma

WORKING PAPER

On

GEOGRAPHICAL LOCATIONS FOR RESIDENTIAL VOCATIONAL SCHOOLS

Dr. J. Clark Davis

February 26, 27, 28, 1969

GEOGRAPHICAL LOCATIONS FOR RESIDENTIAL VOCATIONAL SCHOOLS

Dr. J. Clark Davis

The major purpose of this conference working paper is to provide guidelines for planning the course of action leading to the selection of geographical locations for residential vocational schools.

One of the time honored approaches to developing a position paper is to search the literature for relevant data concerning the problem at hand. It is interesting to note that there is a dearth of writing and evidence concerning the review or analysis of locating geographical locations for residential vocational schools.

This set of circumstances, the lack of research data, directs us to search elsewhere for information. Certainly, the interviewing of directors and developers of present residential schools can provide many valid factors for consideration. Also we have some limited information on the establishment and location of **area** vocational schools which relates somewhat to the problem at hand. Most states have not developed a basic criteria for geographical selection activities. The Georgia State Board of Education has developed a selection criteria that includes the following:

1. The combined enrollment of high school grades nine through twelve in the attendance area shall not be less than 3,000.
2. Schools must be located in centers where there is a large and growing population, never in an area where the population is decreasing.
3. Schools shall be located where there is a concentration or expansion of industry.
4. Local school systems must provide a site of not less than ten acres, and 50 per cent of the cost of architectural fees, construction and equipment costs.
5. The attendance area must contain not less than 60,000 in the total population.[1]

The above statements were selected from a list of twelve criterion statements.

The State of Idaho offers these criteria for locating **area** vocational schools. The following are three criteria of nine in their basic criteria:

1. There must be reasonable documented assurance that employment opportunities will exist for the graduates in the community, the state, or elsewhere, in the occupation or occupations for which training is given.
2. There must be reasonable assurance of initial and continuing enrollment for the proposed programs. Enrollment practices should give consideration (1) to the intention of the student to enter employment in the occupation or occupations for which training is given, and (2) to the ability of the student to profit from the instruction as determined by adequate testing and guidance.
3. Adequate initial facilities and equipment must be available for the total proposed program, or plans which give evidence that the equipment and facilities will be supplemented according to a reasonable schedule.[2]

Most states are not very specific and detailed concerning the requirements for selecting areas for the establishment of schools.

One of the best pieces of data that has some relevance to the residential

school location task is the study of John Uxer. He developed a prediction model for use in locating **area** vocational schools. The selection factors that were developed for analysis are as follows.

Factors

A. Number of students by grade level enrolled in public and private schools in the area.

B. Ability to attract and hold faculty.

C. Dropout rate of schools in the area.

D. Assessed valuation of the area.

E. Industry and business in the **area** — planned and present.

F. Present and predicted statewide and nationwide employment opportunities for trainees from vocational and technical education programs.

G. Total and projected population of the **area.**

H. Present tax load in the **area.**

I. Distance between possible area vocational schools.

J. Can the area show need (present need plus expansion plus turnover) in at least five divisions of vocational technical education?

K. Finance resource potential of the area (in addition to that based upon assessed valuation of the **area**).[3]

Fourteen states were selected for the study and ninety-four area vocational schools comprised the sample. The most common factors considered in locating **area** schools were high school enrollment in the area, total population in the area, administrative structure, and financial support capability. Those factors that were considered to be of little consequence were geographic radius of the area vocational school district, anticipated first year enrollment in the vocational school, and distance to another vocational school.

Uxer developed a decision model for location of **area** vocational schools which was derived from the analysis of his selection factor survey.

There are three major characteristics of his model and they are: (1) Area Vocational School Input Potential, (2) Market for Area Vocational School Graduates, and (3) Adequate Finance for Area Vocational Schools. He describes the three model components with the following figures.

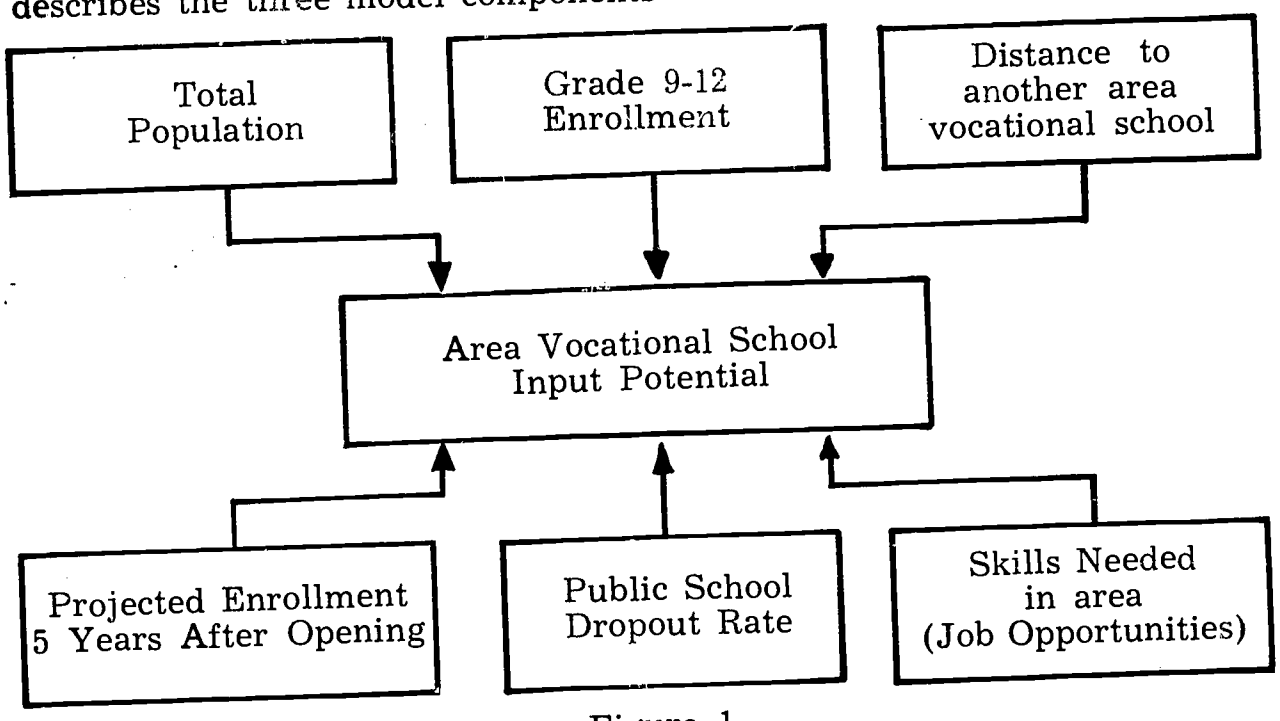


Figure 1

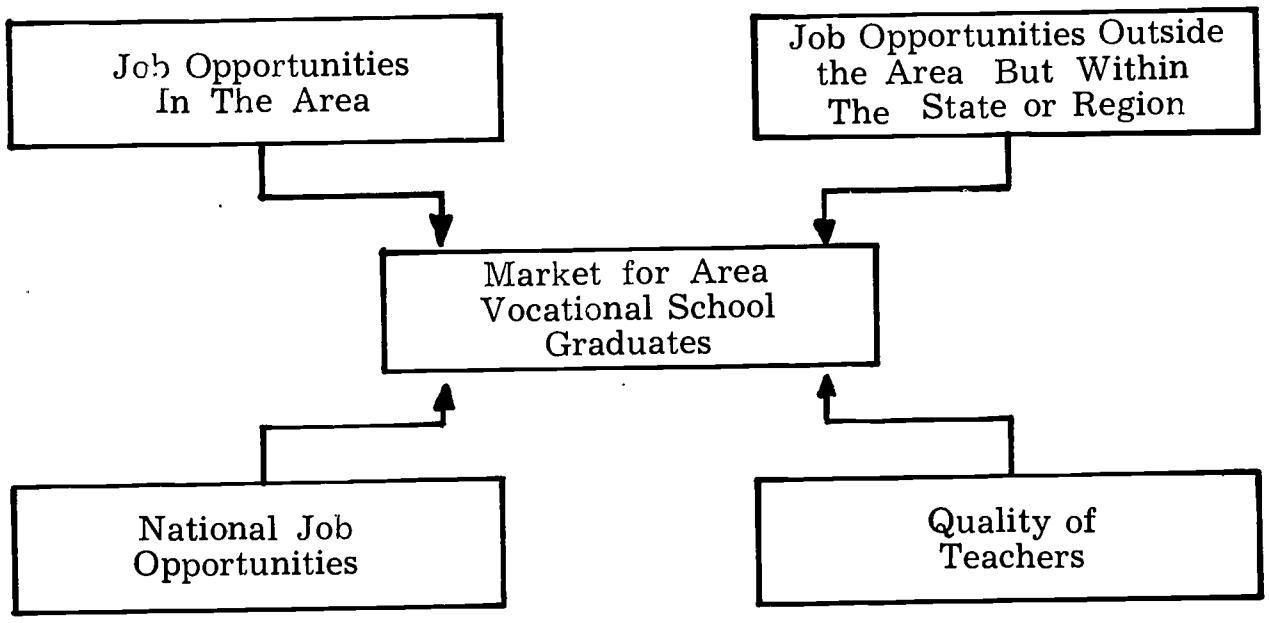


Figure 2

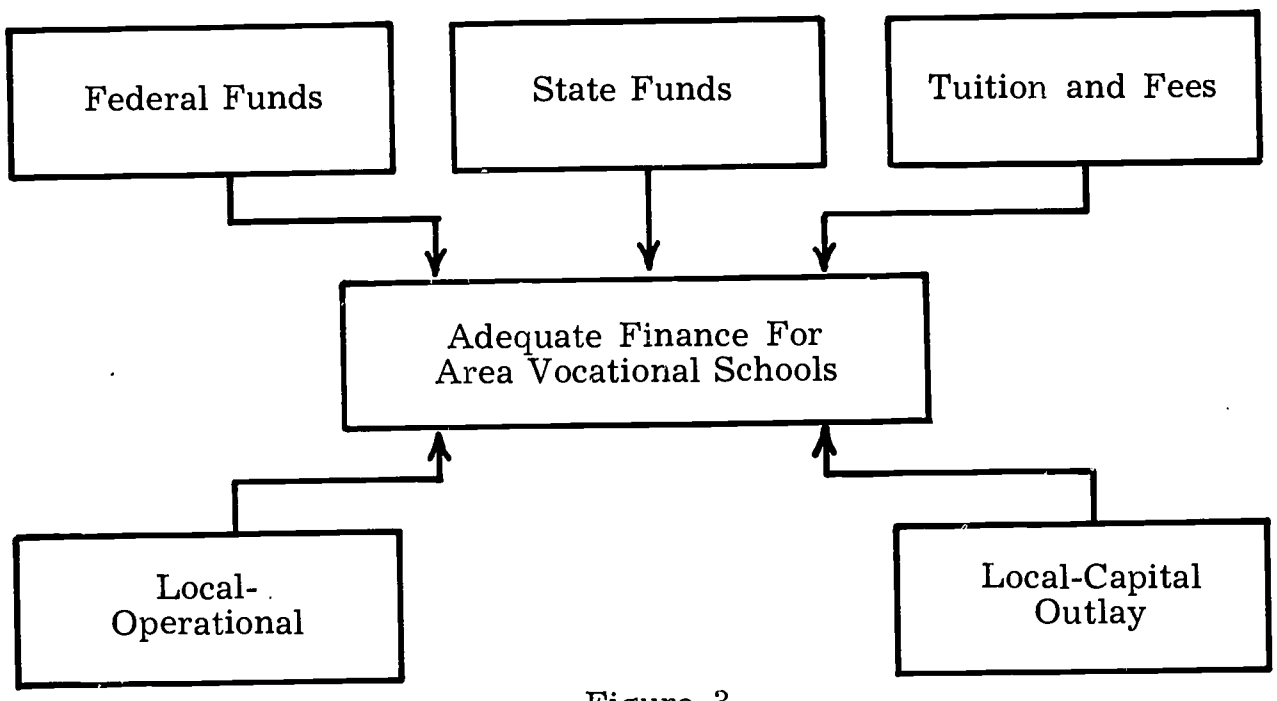


Figure 3

Uxer has developed his model specifically for the selection of **area** vocational school locations, but there are many implications in the model for the selection of **resident** school geographic locations. It **could** serve, with some modifications, as a basic guideline for resident school selection planning.

Planning for Selection

Looking back and evaluating results of actions based on prior decisions is a common pastime of organizations and individuals. Whether or not **a** decision was good or bad can seldom be answered with a positive "yes" or "no." However, the degree of success that is achieved in an endeavor can usually be credited to the quality of planning for making decisions.

The characteristics of rational planning have been summarized by Robert P. Huefner:

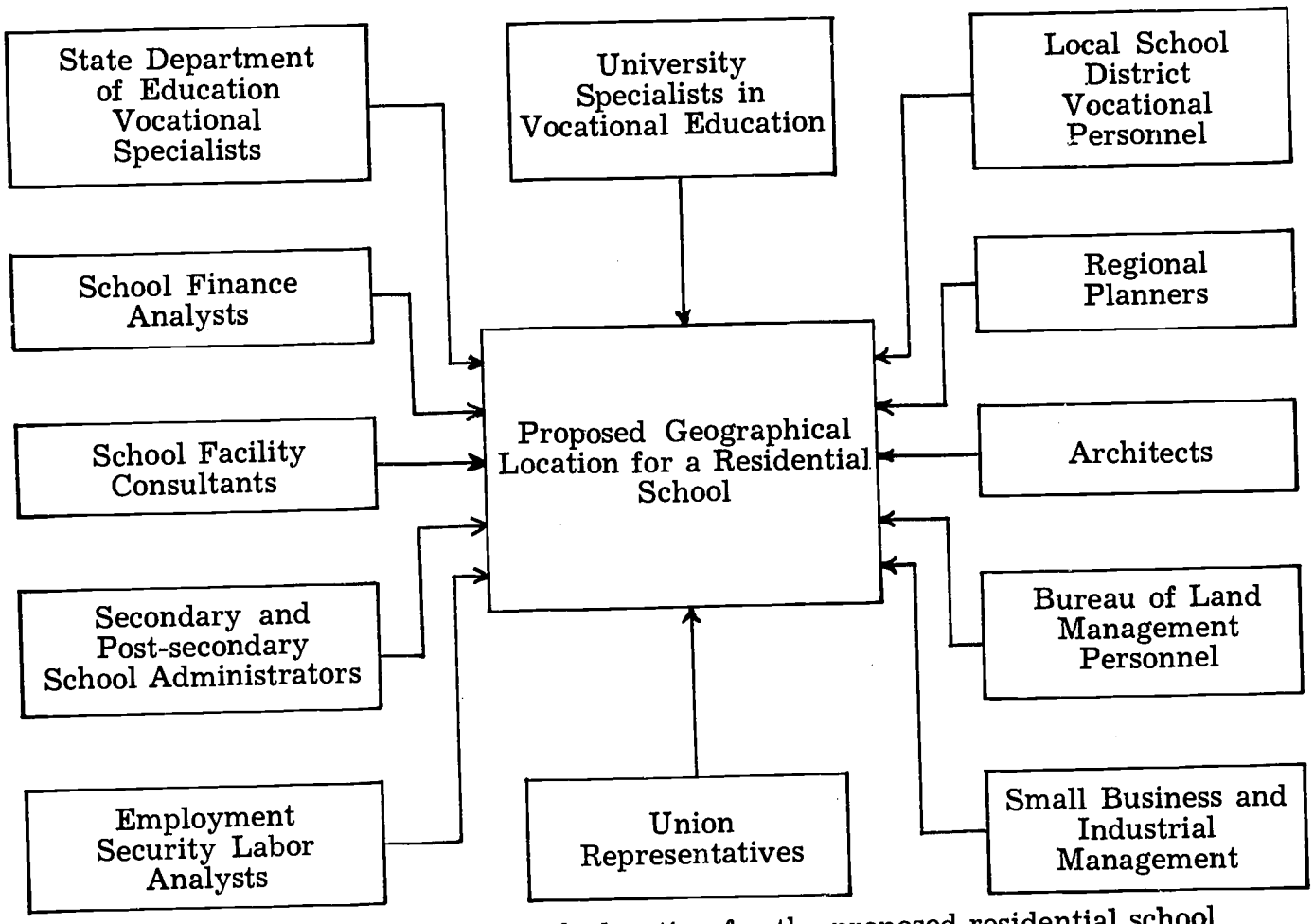
> Everyone plans — but not very well. Most of our actions are influenced by expectations of the future and a written — or at least a mental — "plan" of how that future can be improved. But seldom have these plans been subjected to a critical evaluation of assumptions and ob-

jectives, a rigorous questioning of internal consistency, a useful analysis of realistic alternatives, or a careful coordination with other plans to which they must relate.[4]

Planning for the selection of geographical locations for resident schools should start with the formulation of a planning team. Team members could be selected from state departments of education, vocational specialists, local school district vocational education personnel, university specialists in vocational education, employment security labor analysts, union administrators, school facility consultants, architects, bureau of land management personnel, secondary school and post secondary school administrators, small business and industrial management, and school finance analysts, and regional planners, to name a few.

Certainly a prime requisite is to select a variety of people who have a genuine interest in establishing a residential school.

THE RESIDENT SCHOOL LOCATION TEAM



In order to select the right location for the proposed residential school the planning team must:

IDENTIFY

The basic characteristics for a residential location

DEVELOP

A plan of action to find and evaluate geographical locations

The Geographical Residential Location

WRITE

Design a document that states the rationale for selecting a particular location over the other alternatives

The planning team may select or reject a number of courses of action. In the initial phase of planning, the major objective is to gather as much evidence as possible about the task to be accomplished. Identifying the problem is essential. The team must devote itself to an extensive analysis of the problem and the factors that will influence its decision for residential school location selection.

Rationale for Resident School

A consideration for the planning team should be to determine whom the resident school is to serve.

The national vocational act directs the establishment of residential vocational education primarily toward two objectives: (1) Serving the rural youth who is isolated from the opportunities of receiving adequate vocational training at his home school because of limited enrollment and a limited tax base which will not provide a wide spectrum of vocational education exposure, and (2) To give special consideration to the needs of large urban areas having substantial numbers of youths who have dropped out of school or are unemployed.

Course of Action

With the problem now identified concerning whom the resident school shall serve, the planning team must select some route for collecting pertinent data. The task is manyfold. Planning team activities must: (1) examine alternative solutions and compare them, (2) establish criteria to use as a guide for making sound decisions, (3) seek ideas from people who have been exposed to the selection of residential school locations, and (4) search the literature for all the clues possible to aid in helping to solve the problem of selecting the right geographical location.

The use of an organized survey by the planning team has merit. Basically the survey serves two purposes: (1) It shows the objectivity of the persons who are responsible for leadership in solving the planning problem, and (2) It documents the facts relative to the particular task to be researched.

Very simply, a survey carries forward four basic steps of research method in studying a given situation: (1) formulating a clear statement and concept of the purpose set for the survey, (2) gathering pertinent data in as objective and complete a manner as is possible, (3) reserving judgment until the data are compiled and analyzed, and (4) drawing valid conclusions in terms of, and based on, the data compiled.

Guidelines to Specific Questions To Be Answered

Having evolved a plan of action, the planning team must direct itself to answering specific questions about each geographical location being considered for acquisition.

1. Does the location have easy access by some mode of transportation?
2. Is the location suitable to allow the young man from the heavily populated urban area a change of environment that gives him some feeling of identity — that he is not just a part of the mass of humanity?
3. Is there recreational and leisure hour potential? Are opportunities provided to swim, bowl, play tennis, read in a library, see movies, become involved in intramural sports, have the opportunity to meet people and become a part of a variety of activities within a particular community setting?

4. Is the location smog free, away from excessive noises and free of pungent odors, smoke and dust?
5. Does the location permit taking advantage of state and local labor markets?
6. How will a particular geographical location utilize existing vocational educational facilities?
7. To what extent are work experience or cooperative efforts with small business or industry available to students?
8. Is the location conducive to attracting quality teachers who want to live and stay in the general area?
9. What is the status of the school system available for the children of the teaching staff?
10. Are there available housing units of good quality at reasonable rent or sale prices for teaching and administrative staff?
11. What kind of support services are available for the residential school, such as cleaning and washing facilities, wholesale food service, fuel, light, and other utility rates?
12. What is the potential for enrollment?
13. Are there personnel within the immediate area who can serve as part-time consultants and teachers from industry?
14. What are the problems involved in gaining clear title to land under consideration for purchase?
15. How soon can the site be purchased?
16. What are the site purchase costs?
17. Has a site development cost estimate been made by an architect? What is the site preparation cost?
18. Is there Bureau of Land Management land available for site consideration in the area being evaluated?
19. Has a search been made to ascertain if land can be purchased in cooperation with the Indian Service?
20. What are the architect's estimated costs for the total residential facility environment?
21. What is the capability of the tax base to support the residential school?
22. What is the total present per capita tax load?
23. Are there supporting financial bases, other than public, available for the residential school?
24. Are there any local, county or other political entities that have laws that would provide negative legal implications for the school?
25. What is the extent of interest generated by people in the communities that are being considered as possible locations for residential schools?

All of the possible location factors have not been exhausted in the previous guidelines of questions. Each resident geographical location team will have to add or delete from the array of questions, depending upon the particular resident geographical location problem with which it is faced.

After all the answers to the questions are gathered, then the task of analyzing the data begins.

All data must be analyzed in the light of how data from one location compares with data gathered from other possible residential school locations.

Some of the data are objective in nature. Those that can be pinned down to a dollar and cent basis are easily classed in the category of being objective. For the most part, data will be subjective in nature and that is one reason why a planning team of some size can usually do a far better job handling the subjectivity of data analysis than can a few people who have the built in bias of vested interest.

In conclusion, I offer to you that, in every way possible, the element of politics and political influence concerning the selection of a geographical location for a residential vocational school should be minimized. The major criterion for selecting a location for a residential school is to determine how well that location will provide the best possible kind of education for the young people which that school is designed to serve.

REFERENCES

[1]Georgia State Department of Education, **Criteria for Approval of Locations for Area Vocational-Technical Schools** (Atlanta: State Department of Education, undated), p. 1.

[2]State Board for Vocational Education, **Area Vocational Education Schools in Idaho** (Boise: State Board for Vocational Education, undated).

[3]John Elmo Uxer, **An Operations Research Model for Locating Area Vocational Schools** (Las Cruces, New Mexico: New Mexico State University, 1967), pp. 56, 64, 67, 108.

[4]Robert P. Huefner, "Strategies and Procedures in State and Local Planning," **Designing Education for the Future,** Vol. III, (Denver: DEF An Eight-State Project, 1968), p. 16.

NATIONAL CONFERENCE
RESIDENTIAL VOCATIONAL EDUCATION

Oklahoma State University School of Technical Training
Okmulgee, Oklahoma

WORKING PAPER

On

SELECTION AND EVALUATION OF STUDENTS FOR RESIDENTIAL VOCATIONAL SCHOOLS

Dr. Merrel R. Stockey

February 26, 27, 28, 1969

SELECTION AND EVALUATION OF STUDENTS FOR RESIDENTIAL VOCATIONAL SCHOOLS

Dr. Merrell R. Stockey

Experience over the years with students in the Milwaukee Technical College and information gathered recently on a visit to thirteen residential schools scattered throughout the country rather clearly establish that vocational-technical education requires about the same range of abilities as will be found in an academic secondary school setting.

The task of an admissions department will be that of being able to marshal a student body that can profit from vocational offerings. We can break the discussion into the following categories:

1. Educational Objectives of the School
2. Probable Characteristics of Applicants
3. Methods of Appraising Potential Students
4. Techniques for Recruiting a Student Body

Educational Objectives of the School

It is assumed that every residential school will be concerned with developing job skills and social competence in each student. Course offerings will vary to some degree as a result of geographical location of the school. However, there are certain basic skills that are marketable in almost every area of our country.

While the type of population with which we will be dealing is not highly mobile, there are enough people who move about the country to suggest that each school's offerings, in part, should be guided by national considerations. Many studies have shown the largest single reason for involuntary job termination is inability of the worker to adjust to fellow workers and supervisory personnel. Lack of job skills is of secondary importance. Therefore, the residential-vocational school must take cognizance of the need for helping people to establish adequate interpersonal relationships and provide some type of training in this area.

Probable Characteristics of Applicants

The law governing the establishment of proposed model residential-vocational schools makes it rather clear that a fairly substantial portion of the student body will come from the so-called disadvantaged segment of our society. The term "disadvantaged" is capable of numerous definitions. Based on personal experiences and reactions from people working in metropolitan areas and in some residential-vocational schools, we offer the following sketch of what this potential student will be like.

Educationally they will be retarded. You may expect them to lag three to five or six years behind their capabilities in the area of reading. Similar conditions will exist with reference to their computational skills. In the majority of cases this will represent the consequences of early lack of motivation and application.

Intellectually these young people will function best in dealing with concrete material as opposed to highly verbal generalizations and abstractions. This knowledge must be taken into account wherever screening for admissions will be done. It will dictate selection of measuring devices that do not penalize people of good basic ability who are weak in verbal expression.

Emotional needs and characteristics must be understood by the entire staff of the residential school. While the younger students will display more of the following characteristics than the group of older students, there is enough of an overlap to require fairly similar treatment of these tendencies:

Feelings of Despair — It has been observed that these individuals have feelings of hopelessness and helplessness which permeate their lives. This results in overt behavior which is an attempt to ward-off or defer such feelings. A common technique is to avoid competitive situations, particularly those where their deficits will be exposed. As a consequence, they reject the possibilities of remediation and growth.

Feelings of Hostility — This is a characteristic of which we have been acutely aware for many years. We find that these people have strong feelings of hostility which gain expression in one or more of the following ways in a school situation. They will (1) absent themselves from class, (2) attend class but act out their hostilities and disrupt the learning-teaching process or (3) they will attend school but effectively tune out what the instructor is attempting to communicate. The surface behavior is different in each case but the feeding force is hostility.

Fear of Authority — These people have a fear of authority which goes beyond normal limits. They are apt to feel intimidated by people they construe as having even minimal powers over them. Schools and health and welfare agencies are viewed as possessing this characteristic. Therefore, such individuals have a distorted understanding of their relationships to the various agencies in the community. They will see these agencies as having much greater power than is actually true and they will see them as operating punitively rather than as an agent of help and hope.

Lack of Trust — The life experiences of the young people under discussion have been highlighted by frequent exposures to rejection. As a consequence they have acquired very limited trust in the actions and intentions of others. They have few friends and very little social group participation. They cannot trust employers, school teachers, school administrators, social workers or any public officials. While they may be moved to express interest in the services of welfare agencies, they frequently fail to keep appointments and to follow through on plans made for them. This situation repeatedly confronts counselors and they are called upon to literally lead some clients by the hand in order to insure that they will receive needed services.

The mistrust also derives from a felt inadequacy to cope with ordinary demands of life. They have little opportunity to develop vocational skills and this lack brings criticism from others. As a consequence, they become averse to discussing their problems openly with those who would help them. Fear of criticism leads them to a denial of existing troubles.

Lack of Ego Development — In a population of this type, there will be occasional individuals who present a rather clear-cut picture of psychosis or a pre-psychotic condition. One will also see a sprinkling of rather severely neurotic states. A considerable number will be categorized as: "character disorders". This group has suffered arrest in their emotional development. Many of their responses are more characteristic of what we encounter in young children than those expected of older adolescents and adults. They find it extremely difficult to refrain from enjoying immediate gratifications of their wants and needs.

Methods of Appraising Potential Students

Approval may take two forms. One involves oral interview and may be done with some type of pattern technique. A portion of this approach will

be supplemented by information gathered from a standard application blank and hopefully supplementary data from any of the social agencies that may have had contact with the applicant.

The other approach to selection might involve the use of standardized tests. A suitable intelligence test together with measures of reading and arithmetic skills will be minimal requirements. A test battery of this type can be used for a dual purpose.

In the first instance, cut-off scores might be established for admissions purposes. Secondly, particularly with reference to skill measures, the scores will serve as guides for planning training objectives and as a means of slotting individual students into appropriate levels of tool subject instruction.

Some aptitude measures might be employed as long as due caution is taken to insure that an interpretation is made only in the very broadest sense.

Over a period of many years the Milwaukee Technical College has operated with an open-door policy. However, we have accumulated a fair amount of test data on students in all six of our schools. For purposes of discussion and to show the caliber of student who applies for entrance into adult school courses, we have summarized the results of testing in the following areas:

Air Conditioning and Refrigeration
Aircraft Mechanics
Auto Servicing
ERTV
Machine Shop
Mechanical Drafting
Tool and Die
Welding

The test battery included a measure of intelligence, spatial visualization, mechanical comprehension, reading ability, and computational skills.

DISCUSS RESULTS AND SUGGEST POSSIBLE IMPLICATIONS FOR A RESIDENTIAL SCHOOL STUDENT BODY.

An extension on the admissions process, particularly for the younger age group, could be the establishment of a diagnostic quarter. During this period of time, which might run eight or nine weeks, students will receive more intensive study as they move through a series of trial shop offerings. Near the close of this period, staffings should be held on each student. Academic and shop teachers should meet with the admissions department personnel to analyze the qualities and progress of the student and make appropriate placement in a shop training program.

Techniques for Recruiting

An important function of the admissions department can be that of recruiting the student body. Workers in this department will need to have intimate knowledge of the factors which contribute to successful course completion and job placement of the students. This information must be communicated to the people in the area who have greatest influence on prospective students. A key figure will be the secondary school guidance counselor. The residential school will have to establish meetings with these people in order to acquaint them with the types of referrals they can most profitably make.

One approach might be to establish yearly guidance institutes for high school counselors. They can be brought to the residential school campus and given a full day of instruction concerning course offerings, require-

ments for various programs, and a tour of the facilities to show them the quality of offerings.

The other technique would involve establishing communications through the medium of a newsletter that would be mailed to the counselors several times a year.

The admissions department should become very active in speaking at career days offered by most high schools. They should also seek out the offer to speak about vocational education with PTA groups and the several service organizations that are active in both small and large cities. The admissions department can also take the lead in suggesting types of visual aids that might be developed for use in disseminating information about the school.

Milwaukee Technical College
Counseling Center

ADULT SCHOOL REPORT

	CTMM IQ Mean Score	VISUALIZATION Percentile Mean Score	COMPREHENSION Percentile Mean Score	READING G.E. Mean Score	ARITHMETIC G.E. Mean Score
Air Conditioning and Refrigeration	99	54	43	10.5	7.9
Aircraft Mechanics	103	65	73	11.3	9.2
Auto Servicing	103	47	51	10.9	9.4
ERTV	102	56	67	10.7	10.6
Machine Shop	99	50	49	9.7	8.7
Mechanical Drafting	101	63	51	10.8	9.9
Tool and Die	96	53	53	10.0	10.0
Welding	93	42	46	10.3	7.1

Milwaukee Technical College
Adult School Division

MECHANICAL DRAFTING
(N=64)

Teacher Classification*	L-%	CTMM Intelligence NL-%	T-IQ	Bennett Mechanical Comprehension %ile	Minnesota Paper Form Board %ile	Wide Range Arithmetic GE	Nelson Denny Reading GE	Math GPA	Composite GPA
Above Average	52	69	107	71	74	11.5	11.1	2.8	2.8
Average	57	55	106	56	54	10.3	11.3	2.1	2.7
Below Average	37	51	97	41	61	9.6	9.4	1.4	1.9
Distribution of Mean Scores for "Sure Losers"			93	35	55	8.6	9.3	1.1	1.8
Cut-Off Scores Arbitrarily Established to Separate "Sure Losers" From Other Students		35	50	93	35	55	8.6	9.3	

*This represents teacher judgment concerning projected job performance.

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Okmulgee, Oklahoma

WORKING PAPER

On

SPECIAL CONSIDERATIONS FOR THE SOCIO-ECONOMICALLY, PHYSICALLY AND EDUCATIONALLY HANDICAPPED STUDENT IN RESIDENTIAL VOCATIONAL SCHOOLS

Jack P. Jayne

February 26, 27, 28, 1969

SPECIAL CONSIDERATIONS FOR THE SOCIO-ECONOMICALLY, PHYSICALLY AND EDUCATIONALLY HANDICAPPED STUDENT IN RESIDENTIAL VOCATIONAL SCHOOLS

Jack P. Jayne

We are here to develop Residential Vocational Guidelines to meet the needs of youth who have dropped out of school or who are under-employed. The manifested problems of youth in the cities' ghettos seem to be the same as those of the disadvantaged youth in the rural or urban community. The youth of an economically deprived rural area have poor housing, have a high drop-out rate from school, have a high unemployment rate, and lack confidence in themselves the same as youth in the ghettos. As an example, we have served Indian trainees from both the cities and rural communities, and they have responded similarly to our vocational training program. Also, the cultural patterns of these trainees have had wide variances as we serve Indian applicants who are one-quarter or more Indian blood and who are from entirely different cultures or sometimes who are in a pan-culture. Therefore, it is believed that similar programs would relate to both the ghetto and rural groups who are eligible and in need of services.

The tentative guidelines establish the age limits from fourteen to twenty-one. It is highly recommended that there be a grouping of the trainees in two groups, fourteen through seventeen, and eighteen through twenty-one years of age. Separate housing and curriculums should be for the fourteen through seventeen group, and wherever feasible this age group should be encouraged to attend local public schools on a one-half day schedule and take their vocational training at the resident vocational training school. Students between seventeen and twenty-one should be given a course of training which will meet their vocational needs, social needs, and economic needs. This may take one year, two years, or even three years —depending on the aptitudes of the student, the course objective, and where the student is classified upon entrance into training. Married students who are not residents in the town where the school is located, prior to entrance into training, should be accepted as a family unit and apartment type housing should be made available. The reasoning behind this is two-fold. First, there is a great danger of breaking up a marriage as the family head soon is better educated and develops new social graces which lead to lack of understanding between him and his wife. Second, the wife remains in the old environment and will not move to an area where the family head can find employment and, if she does move, is not prepared for family living. The family needs to broaden its scope as a team and plan their future while the family head is in training.

The site of a residential vocational training school would best meet the over-all needs of its students if it were located in a small town, within fifty miles of an industrial area. Too, it would be more advantageous for the vocational school to become a component part of an existing school, giving vocational training and rehabilitation services to a student body of 2000-4000 students who, for the most part, attend the school as residents on a full time basis.

The average person and especially the disadvantaged person tries to conform to the society in which he lives. He is often frustrated in the initial stages of being in a new environment and manifests it in many ways. He soon adopts the new pattern of living if it is not too regimented and the penalties for making mistakes are not too severe. If at all possible, the trainees should be full-time students, residing at the school.

Too often the home environment is a paradox to what is being taught at the vocational school and very little lasting social adjustment is realized from the training if the student remains in the home environment. The most important thing the school has to offer is a period of transition in a climate which will help the trainee become industrially acclimated. There is no cheap, instant way of changing attitudes toward learning, toward your fellow man, and toward society as a whole. The school must not only provide the individual with a saleable skill, but also, through his experiences and associations, motivate him to want to be self-sufficient. This is the reason we recommend that where possible the residential vocational school be a component part of an existing qualified vocational school.

The medium sized town with an existing vocational school has the experience to cope with a resident student group. They are tolerant but know how to cope with serious problems.

The "town" atmosphere will be a "halfway station" to an industrial city for the trainee with a rural background. The small town atmosphere should afford the trainee from the ghettos the opportunity to see that the conformity demanded of him in his old environment is not to his advantage.

Start up costs would be kept to a minimum where the residential school is a part of the existing school.

The pre-training and counseling should be realistic and not over-sold. Training should be offered on a strictly voluntary basis. The reason the training is being offered should be thoroughly explored and explained. "The goals we are seeking are not to make you employable, but are to make you employed." Pre-training counseling for a training objective based on testing should be tentative and the final selection of the objective of training should be made after orientation at the training center. The GATB, school records and a resume of the applicant's social background should be sufficient information to determine the tentative training objective after need has been established. The counseling sessions should be documented and become a part of the permanent file forwarded to the training center. Some applicants will not be able to agree on a feasible training objective. When warranted the file could be forwarded to the training school with the understanding that the applicant would be put through an evaluation center to determine the feasibility of training and to choose a realistic objective of training.

The resident counseling staff should give one week of orientation for all new students and a training objective should be chosen which is agreeable to the trainee. Upgrading and downgrading of objectives should be permitted on a limited, realistic basis.

In cases where the Residential Vocational Training School is a component part of a larger vocational training school, the trainee counseling services should be contracted for and should be the school's responsibility. Only a technical advisory staff should represent the disadvantaged student. The fewer the observable services to the trainee which identifies him with the disadvantaged the better. Disciplinary actions should be discussed with the technical staff counselors before action is taken. The technical staff may sit in on a session when requested by the school counselor.

The physical facilities must be relatively new and built for the specific purpose in which they are to be used — a Residential Vocational Training School. The plant must have the most modern evaluation center as well as up-to-date training equipment. Shops should be planned with the help of an industrial advisory board in regards to both the floor plan and training equipment and aides. Floor plan and equipment location should be worked out so that alternate or new courses could be initiated on short

notice without costly alterations. Existing schools which already meet this criteria should be utilized when possible to help keep costs down. Too, these schools could become functional in a minimum amount of time. Dormitories for singles and housing for families should be modern if already in existence. An intramural recreational program which will include an indoor gym and swimming pool, should be made available to all students. Buses should be available for scheduled field trips to industrial plants, cultural centers, and historical sites in the vicinity.

Charles F. Kettering, Vice-President in charge of Research for General Motors, told the story of the famous "Gimmy Engine", the work horse of World War II. He and his engineering staff designed the best pistons, rods, crankshaft, head and valves they could to go into the engine. Several other odd type parts were also designed. Several engines were built with different combinations of parts and then tested. Much to the surprise of the research staff, one engine with an odd assembly of parts outlasted and out-performed all the others. This became the Gimmy Engine. Kettering said, "Our tests showed which parts the engine liked the best and they were different from what the engineers thought would be best."

After the war the research project was put on display and Kettering heard some design engineers state, "I still would use the best designed part in the Gimmy Engine if I built it." Research and design of programs is necessary but success is measured by how well it solves the problems of the people.

We have tried to develop a program under Public Law 959, which will best meet the needs of people. We have been fortunate in having good Indian leadership to tell us what disadvantaged Indians want. We have had excellent schools in the area for training purposes with a broad curriculum from which the individual applicant could make a selection of his training objective.

To substantiate our general statements we would like to, without too much repetition, tell you the story and results of our most successful training endeavor here at the Oklahoma State University School of Technical Training.

In setting up goals and guidelines for the Public Law 959 Program in Oklahoma, we tried to pick out those elements of training which were basic in preparing Indian people for the world of work, and to focus our attention on these elements. Between 89% and 92% of those who entered training were employed when contacted. Before entrance into training, they were temporarily employed, under-employed, or unemployed.

Element:

1. Whenever the school has housing facilities the family units as well as the single units will live on the campus or in houses under the school's supervision.
2. In the case of families, the total family must accompany the family head to the training site.
3. All single people and families will be given counsel on money management and family living.
4. Conduct, attendance, and tardiness standards will be realistic and enforcement of these standards will be a joint responsibility of the school and the Bureau of Indian Affairs.
5. A program of family planning will be made available to married trainees on a voluntary basis.

6. Applications will not be completed and forwarded for processing on applicants until they make feasible and reasonable arrangements for delaying payments on indebtedness until training is completed. No capital goods purchases can be made while in training for items such as automobiles.

7. Courses will be approved only in schools having adequate teaching personnel, adequate training facilities and equipment, and where there is a good record of school placement of graduates.

8. The student body must be a mixed group not only racially but economically. (Not all students would be sponsored students.)

Exceptions or waivers have been made on an individual basis for all elements. The only part of an element that has not been waivered is the permission to buy an automobile while in training. Only one of the 1,424 students who entered into training has forfeited his training to own a car.

Of the 1,424 units entering training in Oklahoma since the inception of the program, 925 have voluntarily chosen approved courses of training at the Oklahoma State University School of Technical Training, Okmulgee, Oklahoma. The drop-out rate at this school has been only 18½% since the inception of the program. The drop-out rate of other schools having approved courses is 36.4%.

All but seven (7) of the types of training courses offered in Oklahoma under Public Law 959, are offered at the Oklahoma State University School of Technical Training. They are Registered Nurse, Licensed Practical Nurse, X-Ray Technician, Cosmetology, Barbering, Aircraft Mechanic and Welding. Welding is allied to many trades and is taught as such at this school as a general education subject.

Of the Indian students who have attended training under Public Law 959, two-thirds of them have attended the Oklahoma State University School of Technical Training, which is in the true sense of the term, a residential training school. A total of 925 Indian trainees have attended this school over a ten (10) year period. This number gives us a fair sampling to establish our 18½% drop-out rate at Okmulgee.

Here you may be interested in the reasons given for dropping out:

1. 37% Excessive absenteeism, lack of interest
2. 15% Desired to seek employment — was hired immediately
3. 13% Restless, usually in spring when temporary jobs open up
4. 12% Personal problems, debts, etc.
5. 10% Trainee misconduct, alcohol
6. 13% Various reasons, but no single reason

The following table shows the intake, drop-outs, and completion by fiscal year since the inception of the program to Fiscal Year 1968, and the first six months of Fiscal Year 1969.

TABLE I
ADULT VOCATIONAL TRAINING
Muskogee Area

Fiscal Year	ENTERED TRAINING	DISCONTINUED TRAINING	COMPLETED TRAINING	TOTAL IN TRAINING END OF YEAR
1958	48	2		46
1959	85	24	1	106
1960	61	28	44	95
1961	63	21	56	81
1962	106	11	64	112
1963	81	22	66	105
1964	110	23	86	106
1965	139	25	71	149
1966	131	43	106	131
1967	266	49	160	188
1968	158	57	138	151
1969 (1st 6 Mo.)	142	48	68	177*

*Number in training at the end of December 1968, first six months of Fiscal Year 1969.

Percent Of Distribution Of The Trainees By Occupation For Which Training Was Received

Occupation (a)	Percent of Distribution
Accounting and or Bookkeeping	2.5
Airline Service Mechanic	1.5
Auto Body	8.2
Auto Mechanics	9.2
Baking	1.9
Banking & Data Processing	.1
Barber	7.1
Building Construction	1.0
Building Maintenance	.6
Business Machines Operator	2.5
Commercial Art	.6
Cosmetology	9.6
Culinary Arts	2.5
Diesel Mechanics	7.9
Drafting	6.0
Dry Cleaning	4.9
Electronic Engineering Technician	.7
Furniture Upholstery	.7
Industrial Electrical Maintenance	2.4
Industrial Electronics	4.9
Letterpress Printing	.9
Licensed Practical Nurse	.1
Lithography Printing	4.3
Master Instrument Mechanic	.6
Meat Cutting	1.0
Refrigeration & Air Conditioning	3.1
Secretarial	11.3
Stenographic	1.3
Television Electronics	1.6
X-Ray Technician	.3
	100.0 (b)

(a) No Indians received training as appliance repairmen or as registered nurses although these courses were available through the Muskogee Area Office.

(b) Individual percentages will not add to 100% due to rounding.

AGE OF THE TRAINEES AT COMMENCEMENT OF TRAINING
1958 - DECEMBER 31, 1966

Age:	Percent of Distribution:
18	7.1
19	13.8
20	15.3
21	11.5
22	7.6
23	9.8
24	6.4
25	4.6
26	4.6
27	2.8
28	4.3
29	1.6
30	1.0
31	2.4
32	1.3
33	.7
34	1.5
35	.7
36	.9
37	.3
38	.1
39	.1
40	.3
41	-
42	.3
43	.3
44	-
45	.1
Age Unknown (b)	.1
	100 (a)
Median Age	

(a) Individual percentages will not add to 100% due to rounding.
(b) This results from an AVT application that had been forwarded to another agency but which could not be located or returned to the Muskogee Area Office for analysis.

HIGHEST LEVEL OF EDUCATION COMPLETED BY THE TRAINEES AT COMMENCEMENT OF TRAINING

Years of School Completed:	Percent of Distribution:
5	.3
6	.7
7	.4
8	6.5
9	7.1
10	9.8
11	11.9
12	59.1
	96.0 (a)
Education Unknown (b)	1.2
	100.0
Median School Years Completed:	11.21

(a) These percentages will not total 96.0% due to rounding.
(b) This results from AVT applications that had been forwarded to other agencies but which could not be located or returned to the Muskogee Area Office for analysis.

Much of the success of the Indian Public Law 959 trainees can be attributed to a number of factors other than the ability to teach the family head a skill. We would like to discuss some of the reasons why the Oklahoma State University School of Technical Training has the ability to develop the individual into being industrially oriented and acclimated.

First, the school has a variety of courses which will meet the individual needs, capabilities, aptitudes, and educational levels of the under-educated as well as the high school graduate. The school officials and administrators are receptive to new courses which will meet the needs of a special group of trainees. An even more significant point is that the special course is interdispersed within a department without any feeling on the part of the student that he is being segregated. An example of this occurred a little over a year ago. We were concerned about not being able to meet the technical school needs of a number of high school drop-outs who had very poor grades, very low test results, and were reticent to the point that it was hard to communicate with them. The school administrators were cooperative and a special course in machine shop was outlined and fifteen (15) men were entered into training. Seven (7) washed out within ninety (90) days due to disciplinary actions or just disappearance. Six (6) graduated and started to work at Tinker Air Force Base as machine operators at $2.86 per hour. Two completed 8 months of the 12 month course and went to work in Tulsa in machine shops at $2.40 per hour. Four of those who washed out are anxious to have a second opportunity and will be re-entered into training after July 1, 1969.A second class of 18 men with similar backgrounds started training in September of 1968. Only two (2) have terminated their training as of January 20, 1969.

These men have not taken related classes as do the regular students. Their mathematics is taught in the shop and is solely focused on machine shop math where possible. Other related subjects being taught are Blue Print Reading, Shop Math, Welding, and Precision Measurements.

These men were rough, tough, and ready when they entered training. After six (6) months those who remained were so absorbed in their training they forgot to be rough, tough and ready. Mr. Miller, Mr. Chapman and any one who had anything to do with these men can repeat their names and tell you where each is and what he is doing. Maybe this real interest in the student is the basic reason for the success of the student who attends the Oklahoma State University School of Technical Training.

The second reason is that the school environment, housing, student activities, large enrollment, student government, physical plant, faculty, and adjoining town, lend themselves to breaking down cultural differences which are a hinderance or a block to the individual or family being self-sufficient.

The majority of the Indian trainees are rural people so the adjacent rural community affords them a period of time to make the transition from living in open spaces to living in apartments or dormitories in close proximity to other people. Family apartments on the campus are supervised and checked for cleanliness by school personnel. We are happy to say our Indian families in general are excellent housekeepers even if many took water from a spring and housing was very inadequate prior to attending school. Many of the families lived with a parent prior to entrance into training and when they moved into their school apartment it was the first time they ever had living quarters to themselves. Students are of all races and economic levels. The Indian wife has the opportunity of sharing ideas with others; thus, she has the opportunity of growing socially as her husband learns a skill. We feel this is a must if family relationships are to remain stable.

Okmulgee has a far above-average school system. Indian children attend the city public schools. We have had no problems with absenteeism or

inability to keep up scholastically among the Indian children. We feel the father image is the basic reason for this. The father attends school — the children attend school.

The real Indian culture does not break down in this environment as a number of families have feathered dance costumes on the wall and attend Indian dances without missing classes. One Seneca family of twelve (12), the largest family to enter training under Public Law 959, had a pow-wow each time the father had a discipline problem. The father had all the children, along with himself, and his wife, sit in a circle and cross their arms. No one could speak unless he was the guilty party. Even the little two year old boy sat with his arms folded until the one to be disciplined told his story and gave reasons for his actions. The father decided the verdict and when necessary took the child off by himself to be disciplined. I had the opportunity of sitting in the circle and wish I had the wisdom and patience to sit in judgment. When I see someone pulling a child around in rage, I always think of Bob White and the pow-wow.

We are proud to say we have had one Public Law 959 Student Body President in the past ten (10) years. The campaigns are heated and much in-fighting goes on. Campaign posters and propaganda are well done and involves the entire campus. This is a healthy experience for many of the Indian people and broadens their scope and knowledge of local, state and national politics.

The physical plant at the Oklahoma State University School of Technical Training is far superior to most technical schools, public or private, that I have had the opportunity to visit. The 2,600 students do not have crowded classes or shops. Equipment is more than adequate and the training is geared to meet the needs of industry. The only facet of the facility we see that is not keeping pace with the over-all physical plant is housing — especially for families. This school has been an integral part in helping solve the poverty problem of eastern Oklahoma, but thus far has been unable to get federal, state or private housing to meet the needs of married students. Our future placement of families at the Oklahoma State University School of Technical Training may be governed by the availability of housing on the campus. This is one area in which we recommend that a good look be taken to see the need in comparison to other approved projects before we say, "Under the present regulations you don't qualify." In the establishment of residential schools, full consideration should be given to adequate family housing as well as the dormitory housing for single students. Serving a family head and meeting his vocational needs also helps his children who are potential welfare recipients if the family needs are not met. Besides, it is cheaper to serve the family unit one time rather than serve each member of the family.

The faculty in the shops for the most part are tradesmen as well as teachers. The school is continually upgrading the faculty through accredited extension courses. The students respect the faculty and know they are learning the practical shop practices as well as the theory of modern technology which will give them the confidence and skill to work in their field of endeavor.

All Indian students with a "C" average are interviewed by industrial representatives or business owners and have at least two or three job offers before they graduate. Only nineteen (19) graduates last year were placed by the Bureau of Indian Affairs because they did not have jobs. All were marginal students. This is proof of the statement that the school works with industry and that the training is geared to meet the needs of industry.

The city of Okmulgee is proud of the Oklahoma State University School of Technical Training and it is referred to more often than not as "Okmulgee Tech." Law enforcement is firm but fair. The campus police coordinate their efforts with the city police.

The County Health Department has a well-baby clinic for Indian students. The lady volunteer workers who help the county nurse are from the more prominent families in town. The association of the volunteer workers with the Indian mothers has been a wholesome experience for both. There is nothing like a baby to bring two women to have a better understanding and appreciation for each other.

We spoke mainly of the rural family or single person having to make the transition of living in closer proximity of people. The Indians coming from Tulsa also appreciate and benefit from the smaller town atmosphere and the lack of a skid row. Also they can become a "somebody" much easier than in a large city.

The third reason is that in a residential school the Indian breaks with his old environment. I believe that the average person, rich, or poor, tries to conform to the society in which he lives. Most of the Indian people we serve through Public Law 959 are from rural Oklahoma. They have been farm laborers and have not had steady work. Due to the lack of parental care they have dropped out of school. More often than not they quit for economic reasons to help support the family. Due to the mechanization of harvesting crops, farm labor is becoming more scarce. The Indian's restricted land base is being sold as the original allottee passes on. He receives commodities. His friends go fishing so he doesn't go even to his temporary job as it "wont' last any how." His habits and environment are not conducive to his entering a steady industrial type job. Even being hemmed in by four walls in a shop is often an emotional experience most of us cannot comprehend.

When the individual or family takes the voluntary step to go to school to learn a trade so he can get a "good job", he likely is ready to face this new environment. He manifests his frustrations, but with concerned people to work with him he soon becomes adjusted to his new environment and is most proud of his accomplishments. The students, the wives and the teachers talk about, "When you graduate, you will make ?????." Wives who were reluctant to leave Bunch, Oklahoma, after a 18-20 months transition say, "We are going to Oklahoma City to work; my husband can make 40c per hour more there than in Fort Smith, Arkansas." Fort Smith is within commuting distance of Bunch, Oklahoma.

Most Indian family heads carry the family's money in his hip pocket on arrival. Before long the wife handles the finances and most of the money.

Sometimes the transition to the new environment is almost too much. One tot 1½ years old on arrival, loved to play sitting in the middle of the busiest campus street. He would bring all traffic to a screeching halt until Bureau of Indian Affairs personnel could move the precious, little, black-eyed child to a safer playing area. Several top level meetings of the school and Bureau of Indian Affairs officials were held concerning the wife's responsibility of watching after her child.

The total Employment Assistance Services Program is a voluntary program. The Indian applicant is contacted at home and he also has several counseling sessions at the Indian Office, prior to completing an application for institutional training. The GATB Test is administered by the Oklahoma State Employment Office and the results are made available to the Agency Employment Assistance Officer who uses them in guiding the applicant to a feasible training objective. Here we would like to point out that some approved applicants have to wait as long as eight (8) months until grant funds are available for training. A chronological register of applicants is kept in the Area Office. At the present time there are 186 applicants on the Register and there are doubts if any more grant funds will be available until after July 1, 1969.

We have found there is a status structure in the poverty group as well

as the non-poverty group. There are those who are almost successful on one extreme and at the other extreme, there are those who "always succeed to fail." In a voluntary program the more affluent are the people who are willing to apply for institutional training. Up to now the people below his status say, "If he can't make it, I'm sure I can't make it." As the almost successful succeeds, the cut or step lower in the status group reverses his thinking and says,"He made it; I'll try training and maybe I can make it." Our Employment Assistance Program has helped to cut through several of the upper levels of poverty. There has been no appreciable increase in the drop-out rates as we now accept people who would not have applied for or followed through on an application ten (10) years or even five (5) years ago. Given the opportunity we hope to get down to the very hard-core group of Indians this next fiscal year. We see no reason why they will not succeed as the Indians before them have. In a statement released September 27 during the presidential campaign, President-elect Nixon stated, "The economic development of Indian reservations will be encouraged and the training of Indian people for meaningful employment on and off the reservations will be high priority item." This has been our single goal on a voluntary basis with no manipulation of the Indian people. Our program has been kept simple, people have had a choice. We have not tried to identify them as an ethnic group. If they desire to have ethnic identity, it is their choice. We have tried to expose them to an environment which can prepare them to be self-sufficient taxpayers with dignity of purpose.

Many have expressed their thanks for the opportunity afforded them and the demand for training is increasing as they see their former neighbors enjoying success before their very eyes.

NATIONAL CONFERENCE
RESIDENTIAL VOCATIONAL EDUCATION

Oklahoma State University School of Technical Training
Okmulgee, Oklahoma

WORKING PAPER

On

STUDENT LIFE, COUNSELING, AND GUIDANCE FOR STUDENTS IN A RESIDENTIAL VOCATIONAL SCHOOL

Dr. Kenneth B. Hoyt

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STUDENT LIFE, COUNSELING, AND GUIDANCE FOR STUDENTS IN A RESIDENTIAL VOCATIONAL SCHOOL

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Introduction

The purpose of this paper is to picture the residential vocational school in terms of its potential for meeting student needs. To concentrate attention on student needs requires relating these to all other aspects of the school. It is, therefore, inevitable that comments made here will overlap those in several other major presentations of this conference. I hope that my concern for these students will compensate for my lack of expertise in commenting on such diverse topics as philosophy, curricula, and facilities for the residential vocational school. At least it should make for some interesting comparisons.

It is almost impossible for a strongly biased person to keep his biases secret. Rather than try to do so, I would rather state here my biases with respect to student need for residential vocational schools. First, I am convinced that the Congress "missed the boat" badly in providing for residential vocational schools in P. L. 90-576 both in terms of magnitude of authorizations and in designating those the school is to serve. Second, I am convinced that the residential vocational school movement could and should take over many of the functions which the community college movement is claiming as its domain. Third, I am convinced that the residential vocational school could and should, in the relatively near future, largely replace the Job Corps — and acquire its funds. Fourth, I am convinced that the residential vocational school could and should operate on the post-high school level open only to those who have left the secondary school.

The fact that I may represent a very small minority bothers me not at all. Neither am I bothered by the obvious attacks I am inviting by making these statements. I ask for no more mercy than I am willing to give — and, on these points, I am willing to give none.

These biases have led me to organize these remarks in three sections. First, I want to specify those students I think the residential vocational school should seek to serve. Second, I want to comment on the educational and vocational guidance needs of these students. Finally, I want to speak briefly with respect to counseling and guidance programs designed to meet these student needs.

The Residential Vocational School Student

In my opinion, the residential vocational school should represent a reasonable post-high school educational opportunity to consider for roughly two of very five students currently enrolled in American secondary schools. My purpose here is to attempt to defend this statement.

Of all secondary school students, roughly two in five could appropriately enroll in American higher education — including the community college, the four year college, and the university setting. Of these, actuarial statistics would lead us to believe that roughly half will eventually obtain a four year college degree. Our current occupational structure leads me to believe that this is about all our labor market can absorb. To expand this proportion much would lead to an oversupply of college graduates for those positions which, in terms of skills required, demand a college degree.

The fifty percent of those entering college who will never obtain a four

year college degree represents our prime source of technicians this country so badly needs. To estimate that roughly one in five members of the labor force will be a technician in the decade of the 70's does not seem to be unrealistic. I am fully supportive of the concept that the community college represents a very reasonable educational structure for the preparation of technicians. The needs of such technicians for related content in such areas as English, mathematics, and the physical sciences along with technical job training argues strongly for the community college concept. It does not, I might add, preclude the desirability of the separate technical institute as an additional kind of educational institution.

If we think of the American goal of providing secondary education for all of the children of all the people, it seems reasonable to expect that roughly one in five can be expected to enter the labor market directly from the high school. These will be people who, in the labor force, will be working in semi-skilled and basically unskilled occupations, who will be changing occupations most frequently, and who require only rudimentary vocational training. Some will be high school graduates while others will be high school dropouts when they leave the secondary school. Vocational education at the secondary school level should meet the training needs of these persons.

The fastest growing occupational needs in this country are for skilled tradesmen, craftsmen, service workers, and people prepared in business education. This requires training beyond the semi-skilled level but below that required for the true technician. This is the group for whom the residential vocational school should be planned and for whom it should operate. This school should be open to both high school graduates and dropouts. There is evidence that high school dropouts who seek trade training do almost as well as high school graduates once such training has been obtained (Hoyt, 1968). Ideally, most of these students will have been enrolled in basic vocational education as well as general education courses while in high school. While male enrollment will be greater than female, substantial numbers of girls as well as boys should be enrolled in these schools. When the total range of occupations involved is considered, my contention that this kind of training should be sought by roughly two in five students leaving the secondary school does not seem high.

True, the private trade, technical, and business schools in the United States will continue to enroll many of these students. The fact that over one million students are currently enrolled in private vocational schools makes this as clear as it does the need for residential vocational schools. Hopefully, increasing numbers of the students involved here will find training opportunities through the apprenticeship route. Others will be trained by business and industry in on-the-job training activities. Given the existence and growth of all such opportunities, there still remains a very large number of American youth who need the kinds of opportunities the residential vocational school could offer.

These students include sizable numbers of youth who are both out of school and unemployed, who are culturally and financially disadvantaged, who come from pockets of poverty in both rural and urban America, and who are members of minority races. To picture the needed student body in the residential vocational school only in such terms, however, is both grossly unfair and totally unrealistic. The majority of the student body in these schools should be those who have been handicapped only by the fact that this country has not met their educational needs with a nationwide system of residential vocational schools. No student should be handicapped in terms of educational opportunity by the fact that he is not.

Depending on definitions one chooses to concoct, every person is a member of some minority group. I would like to think of the student body in the residential vocational school as one representing **all** minority groups

— from all kinds of cultural environments, from all social classes, from all levels of academic aptitude, and with all degrees of handicaps ranging from none to severe. Their common characteristics should be that they want to work, recognize the need for vocational skills, and are interested in studying those things they need to know if they are to become productive members of our total work force. The residential vocational school is not a place representing a second-best choice for second-best students. It is the very best choice for thousands of very fine students.

Guidance Needs Of Students And The Residential Vocational School

The residential vocational school, rather than the community college, holds the greatest potential among public school institutions, for meeting the guidance needs of the students I have described. The following set of student guidance needs represents my prime reasons for seeking to make the residential vocational school an important part of American public school education.

The need to develop feelings of self-worth and self-esteem. Most students in the residential vocational school have come from high schools where they could seldom be at the top of any distribution. Others against whom they were forced to compare themselves were academically brighter, richer, better dressed, more verbal, and more socially fluent. The residential vocational school represents an opportunity for students to compete meaningfully against those with whom they will be in competition the rest of their lives. It represents a structure built for **them** and **because** of them. It gives them a chance to be themselves with others who are like them, to appreciate and respect others like themselves and, by so doing, to build self-appreciation, self-respect, and feelings of self-worth. They are given opportunities for playing student leadership roles and for participating in student government, social, and recreational activities that were effectively denied them as high school students.

The need to develop independence of thought and action. Volumes have been written regarding the advantages of dormitory living for college and university students. It has often been pointed out that, by giving students a chance to live away from home, the student learns the basic principles of self-care, of socialization, and of self-responsibility. In addition, the social interaction of the campus setting forces the student to think about himself in terms of his own personal value system — about that which **he** feels is right and wrong, and about the kind of person he is becoming as well as the kind of person he would like to become. To whatever extent dormitory living accomplishes such objectives, there is no reason to believe the students we are talking about here as less deserving of these advantages than are those students attending our tax supported colleges and universities. If anything, the relatively less affluent home backgrounds from which they come make them more deserving of these advantages.

The need to discover and capitalize on unique educational motivations. Many students for whom the residential vocational school is appropriate would be described by their high school teachers as lacking interest in education. More importantly, many such students see themselves as uninterested in education — or even actively disliking school. The residential vocational school represents an opportunity for such students to discover that they do have educational motivations and that they **do** like to go to school. It does this by appealing to motivations towards acquiring job skills as of major importance. In the words of students, this is often translated by expressions such as "here we study only what we need to know in order to get a job". The residential vocational school does not seek to impose other kinds of courses on students so that their "credits" will be transferable to a four year college. Rather, it purposely seeks to provide students with the vocational skills they need to enter and successfully compete in the labor

market. It represents, for many students, the first time school ever made sense to them. By so doing, it builds in the student a desire to learn which, throughout life, will be one of his most valuable possessions. When a student discovers he wants to learn, it is easy to teach him how to study — a skill all persons need and one which many of these students have never acquired. The residential vocational school, by letting students discover they are **learners**, can earn, rather than simply claim, status for itself.

The need to overcome geographic discrimination in decision making. The goal of guidance is to help students choose wisely from among the widest possible set of educational and vocational opportunities that can be made available to them. No student should be limited in his educational-vocational choices to only those opportunities existing in his immediate geographic area of residence. Too many vocational offerings in community colleges are present because of needs of local employers and expectations that, by training students for local jobs, the students will remain in the local area upon completing their training programs. The correlation between the geographic area from which students are recruited and the geographic area in which they are placed is high. The residential vocational school can provide an opportunity for students in every part of the state in which it is located — and even for students beyond the borders of the state. By concentrating training resources for a given occupation in a single school, the very best instructors can be brought together, the very best equipment can be obtained — an replaced whenever necessary, and the very best opportunity for effective widespread vocational placement can be established. In states where more than one residential vocational school exists, each school can offer an essentially different, rather than competing, set of training programs. By making all such schools available to all students in all parts of the state, we can effectively expand greatly the number of opportunities from which each student can choose. At the same time, we provide assurances of highest quality training and maximum placement potential at minimum taxpayer expense. This student need, more than any other represents the prime reason why I want the residential vocational school system, rather than the community college system, to become that part of American education designed to serve these students.

The need to be able to try, to succeed, to fail, and to change. These are universal needs of all human beings. They have too often not been fully met for these students when they are forced to compete with all other students in the so-called "comprehensive" educational institution. The standards of no school should take precedence over development of standards for the individual student in that school. The residential vocational school should be an open-door institution — a place where all who choose to do so should be given an opportunity to try. The essential key is the unique opportunity for curriculum construction that exists in the vocational school setting. I am referring to the opportunity for constructing course content in sequences of very short units and at a wide variety of skill levels. Where this is done, a student doesn't have to wait for a new semester to begin before starting school. Instead, the school is ready for the student whenever the student is ready for school.

Similarly, within a very few weeks after enrolling, the student has finished something — which, for some of these students, will represent a brand new and exciting experience. The student discovers quickly how well he is doing in the field he has chosen and, if it now seems appropriate, can change before investing a great deal more time and effort. By constructing instructional programs on a levels concept, a student can fail at one level and still leave as a success by passing a training program at a lower level. Similarly, a student who enters with low skill aspirations can see, by the time he finishes the training he came to get, how he can raise his aspirations now and strive towards a higher level of job skill. If it takes him longer to finish than some other student, that is all right too. The cul-

tural status needs of the academic institution that prevent students from accomplishing such objectives should not and need not be present in the residential vocational school.

These, then, are the guidance needs of students which it seems to me can and should be met in the residential vocational school setting. I have discussed these needs by referring rather directly to the basic nature of the residential vocational school itself. If such schools can be established in these ways, I am confident these student needs can be met. If residential vocational schools are to be established in ways grossly different from those I have described, it seems to me we are not responding to the challenges of these student guidance needs.

Programs Of Guidance And Student Life In The Residential Vocational School

As a final part of this presentation, I would now like to discuss the nature and scope of guidance and student life activities in the residential vocational school. Such activities are schoolwide responsibilities involving not only guidance specialists, but also many other members of the total school staff. These activities can be divided into three parts — pre-entrance, in-school, and those involving transition from school to work.

A first and most important set of services concern themselves with activities that take place prior to student entrance into the residential vocational school. To be consistent, this should be approached from a guidance rather than a recruitment point of view. That is, the prime objective should be to provide the prospective student with a sound basis for decision making, not to "sell" him on coming to the school. This can, in my opinion, best be accomplished by working with both the vocational education teachers and the high school counselors of this country.

This can be done only if information about the school, the occupations for which students are trained, the experiences of students in the school, and the experiences of school graduates in the occupations is made available. The school catalog is a document of basic importance. It should describe the variety of training opportunties, housing arrangemens, financial obligations, entrance procedures, and the basic purposes of the school. It should clearly show high school students both how they can arrange to visit the school and how they can apply for admission.

But, no matter how good, the school catalog will not be enough. In trying to make decisions regarding school attendance, the primary operational question with which the student is faced is, "What is likely to happen to **ME** if I take this course in this school and enter this occupation?" This can be answered most clearly if information is made available in easy-to-read form regarding the characteristics, educational experiences, and post-training vocational experiences of students who have attended such schools. I am referring, as some of you must know, to materials such as the SOS GUIDANCE RESEARCH INFORMATION BOOKLETS which we produce as part of the Specialty Oriented Student Research Program (Hoyt, 1962) (Hoyt, 1967) (Hoyt, 1968). I am not saying no better approach could be developed, but only that some approach like this is essential. Without such materials, high school students will continue to "settle" for attending the residential vocational schools when, in fact, the goal is to help them **choose** to attend — as a first and very best choice they could make.

Accomplishment of these pre-entrance objectives demands that student guidance specialists from the residential vocational school work with high school counselors. These counselors have big changes to make, but they won't make them without some very concrete assistance from their counterparts in the residential vocational schools. Similarly, much work remains to be done with vocational educators in the secondary school setting. Too

many are still viewing post-high school vocational training as competitive with high school vocational education programs. To help high school vocational educators get to the point where they take as much pride in the post-high school educational accomplishments of their graduates as do today's teachers of the "college-bound" will require great effort. The residential vocational school must assume some of the responsibility for effecting these changes in high school vocational educators as well as in high school counselors.

The greatest amount of guidance time must, of course, be devoted to students once they have enrolled in the residential vocational school. The general goal is not one of doing things for students. Rather, it is helping students do things for themselvs, make decisions of their own, and assume increasing self-responsibility for the kind of person they are becoming. In short, it is not to "baby" students, but rather to help them grow up into responsible citizens.

The range of student problems involved is great. Beginning with problems associated with finding their way to the school, they proceed to problems of adjusting to dormitory living, homesickness, meeting people and making friends, learning how to constructively use their leisure time, choosing courses they will take, learning good study habits, participation in student government activities, financing their schooling, deciding on basic elements in their personal value system, determining and progressing towards specific educational goals in the context of a pattern of such goals, and making tentative plans for what they will do when they leave the school.

Each of these represents an area of normal problems of normal youth who can be expected to enroll in the residential vocational school. Each represents a problem area which will be handled by these youth somehow—simply because it exists and so must be handled. The goal of guidance is to help students handle such problems better than they could handle them on their own. That is, the prime goals are developmental rather than either preventive or remedial in nature. Some problems of both prevention of difficulties and remediation will, of course, occur, but they do not represent the basic foundations of guidance and student life programs in the residential vocational school.

If these in-school problems of students were seen as something which only professional counselors in the school worry about, the counselor-student ratio would have to be very low indeed — probably less than 1:50. In my opinion, a far better program will be present if every staff member in the residential vocational school felt he has a guidance, as well as an instructional, role to play. Helping students in many of these problem areas requires only common sense, care, concern, and time — not a special body of technical knowledge that makes one a professional counselor. In saying this, I am certainly not objecting to the presence of professional counselors. Let me make it clear that I firmly believe professionally prepared counselors will be essential — and in a lower counselor-student ratio than is possible in most secondary school settings. The counselor-student ratio in the residential vocational school can, if other staff members assume guidance responsibilities, be, I would guess, around 1:200. These students are, in my opinion, too important for this ratio to be higher. The importance of wide faculty involvement in guidance activities is too great for this ratio to be much lower.

The third part of guidance in the residential vocational school is that devoted to helping students make the transition from school to work. This includes job placement, but is much broader than simply helping a student find a job. In addition, it includes helping students explore the widest possible range of job opportunities which might be available to them, helping them acquire job-finding and job-getting skills, communicating with pros-

pective employers about students in ethically proper ways, and systematically conducting follow-up studies of former students once they have left the school for a job.

Here again, this is not a part of guidance which should be carried out only by professional counselors. The most important student data to be gathered can be obtained from only one source — i.e., his instructors. Both the relative ability of the student to perform a given job task and the student's special job strengths should be judged by his instructors and made a part of his placement record. The total placement interviewing procedure should include interviews between prospective employers and instructors as well as between students and prospective employers.

The placement function does not end when the student has a job and begins work. Systematic follow-up contacts must be maintained with former students both for purposes of obtaining feedback from these former students and in helping them make progress from their initial job to better opportunities that arise later. The four year college doesn't cease helping a student once he has graduated and moved from the college to some other setting. Neither should the residential vocational school.

The feedback gained from making contacts with former students is especially important as part of the total placement program. Curricular determinations in the residential vocational school should be based on both employer **and** employee needs. We haven't done a good job in assessing either area, but we have done much better in assessment of employer needs than in assessment of employee needs as a basis for curricular determination. In my opinion, the residential vocational school must regard both kinds of assessment as equally important bases for curricular decisions.

The total guidance program I have described — pre-school, in-school, and post-school — will, in my opinion, be an important element in determining the eventual success of the residential vocational school movement. This guidance program, like any other part of the school, can be expected to yield returns which are dependent on the investment that is made in them. In terms of the school's operating budget, somewhere close to eight percent should be earmarked for guidance and student life programs. I use this figure as representing, in the asbence of hard data, the best guess I know to make. I expect, when such hard data are available, that the final answer may be a little higher or lower than this, but I don't think it will vary much.

Final Statement

To me, the concept of the residential vocational school is already at least ten years behind in terms of being implemented as a common and essential aspect of American education. The rapid acceptance and implementation of this concept should wait no longer. Some will, I am sure, be grateful for those provisions in P.L. 90-576 calling for demonstration programs of residential vocational schools. From a personal standpoint, I am ashamed of these provisions. What else is there to demonstrate? Schools such as Oklahoma State Tech **have** demonstrated the viability of this concept for years. The concept is ready for implementation.

I become especially upset when I note the very rapid growth of community colleges in the United States today. As you know, we are told that better than one new community college is being opened every week. If **demonstration** is needed before a concept is adopted on a nationwide basis, that demonstration should be a direct comparison of student benefits obtainable from vocational programs in the community college as opposed to the residential vocational school setting. Too many vocational educators have gone along with the community college concept simply because that was all others have offered to make available to them. It is time vocational

eductors quit being content to take what others provide. It is time vocational educators start fighting for that which their students need. If the fight must start with a major research effort comparing the effectiveness of the community college versus the residential vocational school for these students, so be it.

I become even more upset when I note the pitifully small amount of funds authorized for residential vocational schools compared with the large amount of federal funds available for the Job Corps. There is simply no sensible way in which this discrepency can be justified. I have no desire to attack the Job Corps nor to see this kind of activity entirely eliminated. At the same time, if the fallacy of lack of funding for residential vocational schools can be illustrated by using the Job Corps as a comparison, then I see nothing wrong in taking such an approach.

My plea, in the final analysis, is not in opposition to anyone nor to any possible kind of educational opportunity. Rather, my plea is for recognition of and provision for meeting the vocational training needs of a very important segment of American society — the future skilled tradesman, craftsmen, business occupations, service workers, and para-professionals in a variety of other fields which this country so badly needs right now. The cause for which we fight is worth whatever it costs.

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NATIONAL CONFERENCE
RESIDENTIAL VOCATIONAL EDUCATION

Oklahoma State University School of Technical Training
Okmulgee, Oklahoma

WORKING PAPER

On

CURRICULUMS, COURSE OBJECTIVES, AND INSTRUCTIONAL MATERIALS FOR STUDENTS IN RESIDENTIAL VOCATIONAL SCHOOLS

Jim L. Moshier

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CURRICULUMS, COURSE OBJECTIVES, AND INSTRUCTIONAL MATERIALS FOR STUDENTS IN RESIDENTIAL VOCATIONAL SCHOOLS

Jim L. Moshier

The Vocational Education Amendments of 1968 (P. L. 90-576) provide for the establishment and operation of residential vocational education schools, designed to meet the needs of substantial numbers of youth who have dropped out of school or who are unemployed. The school should capitalize on all provisions and opportunities to do the things that need to be done. All available services and resources of the community should be involved and brought to bear as necessary in each situation. The following are some of the more important factors to be taken into consideration:

(1) The principal objective should be employment upon completion of a prescribed training program.

(2) Vocational course offerings at such schools should include fields for which available labor market analyses indicate a present or continuing need for trained manpower, and that the courses offered should be appropriately designed to prepare enrollees for entry into employment and advancement in such fields.

(3) Schools should be designed to provide for free education and subsistence to certain youths between 14 and 21 years of age who have discontinued their education and are unemployed or underemployed.

The needs of residential vocational schools may be different in the areas of curriculum and equipment than other vocational schools that are not residential. The school must not only provide the regular hours for the student course study, but it also must provide for the continuing study during the hours he is not engaged in regular conducted activities or leisure time recreation. Vocational students want to go away to school for the same reasons that other college students do.

This section of the conference is to deal with guidelines in curriculums, course objectives, and instructional materials for students in residential vocational schools. A curriculum for vocational training is the organized program of study and experience designed to meet the specific requirements for the preparation of a particular kind of a job classification within a stated period of time. Each course must be designed specifically to prepare an individual for a particular field of endeavor.

The subjects in a vocational course could be grouped under the following classifications:

(1) Vocational Specialty Subjects: These teach the special skills, knowledge, techniques, applications, procedures, and services that identify the vocational objective and prepare the student for a variety of employment opportunities in that vocational field.

(2) General Education Subjects: These include:
A. Mathematics required by the vocational course to enable the student to successfully pursue the course objective.

B. Communication subjects which teach oral, written and graphic skills, the required reading capability and the ability to communicate successfully with co-workers and others.

C. Social Studies subjects which provide the elementary frame of reference in economics, citizenship, and social relationships as

needed by an individual member of a family, an employee and a citizen.

The curriculums for vocational schools should be chosen with regard to the employment needs as determined by a survey of the geographic region or state in which the school is located. The number of course objectives should be determined by the number of expected students and the ability to have enough students in each course to make it feasible to operate in the manner that would be conducive to an effective program.

The courses should be set up with the cooperative help of educators and advisory committees whose members are chosen from the employment areas of the courses being considered. The committee members should be chosen from various organizations so that the full picture of the needed training may be determined. These committees would also be helpful in securing training equipment for the school from different organizations.

Schools planning to establish new courses should consider the following approximate costs of equipment to effectively start a quality program:

Automotive — $200,000
Diesel — $250,000
Printing — $200,000

To emphasize the importance of the cost of establishing these programs, Oklahoma State Tech has over $7,000,000 worth of training equipment. This does not include buildings or other necessary expenses.

The courses should be planned on a large enough scale so that training can be set up to provide a separate instructor for each section of study for the course objective. Equipment to support each one of these sections should also be provided in such quantity as to promote the best of training. The instructor should be able to take the students into a classroom and explain the theory of a training phase with all teaching aids necessary to demonstrate the principle. After a thorough explanation, the students should then be allowed to return to the shop or laboratory to practice, at individual stations, the theory which has been demonstrated. In this manner the student gains understanding and practical experience in performing the services expected by his future employer.

At some phase of the training, the student should have the opportunity to work in an environment similar to the type he can expect when he joins the ranks of the employed. This could be accomplished either by setting up model shops or classrooms or by a cooperative agreement with local employers. On-campus students could become customers for products and services of the various courses offered by the school.

In assigning students to classes, no distinction should be made in their socioeconomic backgrounds. Past experience indicates a good learning situation is created by allowing students to accomplish their training with other students of different backgrounds.

In support of the vocational courses there should be a complete General Education section. The General Education courses should be set up so that a student may enter them at his individual level. This may necessitate the securing of several special teachers in reading and mathematics. The General Education section should be provided with separate classrooms and the necessary equipment to teach the students in the areas in which they may need instruction to support the vocational objective and to promote good citizenship. Students should have access to the teacher at various hours of the day (other than class time) to permit individual help.

The general education teachers, should be trained in both teaching and vocational areas in order that they may teach their students math, reading, etc., in relation to the vocational course objective the student is study-

ing. This type of instruction tends to promote better motivation and understanding.

Oklahoma State Tech operates on a six-hour day for most of its course objectives. The student will spend four hours per day studying in the vocational or technical course objective and two hours per day in various general education subjects.

The subjects in General Education that are directly related to the course objective, such as Mathematics, Blue Print Reading, Metal Arts, and Precision Measurements, are designed and taught specifically for a certain course objective. The mathematics needed by Data Processing students is different from the mathematics needed by Baking or Auto Body students.

Advanced standing tests in some beginning subjects are desirable so that a student may enter at his background level.

The two courses outlined are an example of the difference in related subjects which are necessary for different course objectives.

INDUSTRIAL ELECTRONICS: (6 Trimesters — 2 years)

Technical Subjects:

- Electrical and Physical Principles
- Power and Process Control
- Basic Electronics
- Systems Analysis
- Advanced Circuit Analysis

General Education Subjects

- Technical Mathematics (including slide rule)
- Communications I
- Algebra I (applied)
- Technical Report Writing
- Algebra II (applied)
- Oral Communications
- Trigonometry (applied)
- Business Principles
- Human Relations

AUTO TRIM (3 Trimesters — 1 year)

Vocational Subjects

- Basic Auto Trim and Interior Panels
- Headlinings and Tops
- Seat Covers and Floor Mats

General Education Subjects

- General Mathematics
- Communications I
- Human Relations
- Business Principles

It is desirable for the students to have some class contact with students in other course objectives. This is accomplished by mixing them in Human Relations, Business Principles, Oral Communications and other subjects not directly related to any one course objective.

It may be necessary to arrange with the local high school for some courses to be accepted toward high school credits. This could be arranged in accordance with local and state requirements. For some students this would not be necessary; therefore, many courses could be set up without particular attention to traditional accreditation.

High school credits could be arranged by having the students attend the local high school for half a day and spend the other half day in voca-

tional training. Those students not desiring high school credit, but in need of basic courses, should be allowed to enter classes conducted by the vocational school on a level at which they can succeed and advance toward a desired goal.

The student-teacher ratio should be somewhere in the neighborhood of ten (10) to one (1). This would give the instructors in the shops or labs the opportunity to spend a great deal of time with each student.

Students who have had difficulty in the traditional setting in education become eager and receptive when placed in a situation where they can see not only a principle, but also work it out on up-to-date training equipment with the assistance of a competent instructor.

Many students who have failed to understand the reason for learning how to write a descriptive sentence in high school become interested in the subject when the approach is how to describe a transmission, a transistor, or explain how a printing press works.

To accomplish these objectives, it is necessary for the teacher load to be small enough to allow the teacher to prepare and teach from well formulated lesson plans and to evaluate his teaching in a thorough manner.

It is imperative for the school to have a learning center around a library complex that would include study areas, self-teaching materials, and a complete library system with the most up-to-date materials available. The provision of trained tutors in this complex would also be of great value. The student who wants to become a craftsman should receive instruction equal in quality to the instruction that will be given the candidate for a profession.

The library should contain books, magazines, periodicals and other materials that will provide continuing information in the various fields of study being offered. The library should be easily accessible to the student and located in a relatively quiet place so that study may proceed with a minimum of disturbance.

The library should be kept open in the evening hours with a competent staff. Each student should be encouraged to use this facility to improve not only his knowledge of the vocational objective, but also improve basic skills to aid him in his ability to cope with many situations.

In summary, the curriculum should be planned to meet the demands of the employment market and allow for the different abilities of the students. This should be done in such a manner as to motivate and promote the best training for the student.

The course objective should strive to prepare the student for successful and rewarding employment and to prepare him to meet successfully the challenges of being a good citizen.

The instructional materials should be the most up-to-date possible and in a quantity that will promote training to the highest degree.

Topics for Discussion

I. VOCATIONAL EDUCATION PROGRAMS DESIGNED WITH EMPLOYMENT AS THE PRIMARY OBJECTIVE.

A. The individual should be able to pursue gainful employment upon completion of course.

B. The programs must be meaningful to the employment market in the State or geographical region. (This may be accomplished by by an employment survey.)

C. Each course should be on a large enough scale so that a separate instructor could be provided for each section of study within a given course objective.

D. The program of instruction should include the most up-to-date knowledge and skills necessary to meet occupational objectives of the course.

E. The equipment being used should be of the same design as that the student will encounter in working in his field.

F. The program of instruction should combine and coordinate classroom instruction with field, shop, laboratory, cooperative work or other occupational experience which is appropriate to the occupational objective of the instruction.

II. STUDENTS SHOULD BE READY FOR INDEPENDENT LIVING UPON COMPLETION OF COURSE OBJECTIVE.

A. Supporting courses should be offered that will enable the student to live independently. These courses should include experiences that the student is likely to encounter on entering society on his own.

B. Responsibility of different areas during training such as clean shops, classrooms and maintenance of instructional equipment should be stressed so as to provide a background for responsible employment.

III. CURRICULUMS SHOULD BE FLEXIBLE TO COMPENSATE FOR INDIVIDUAL PROGRESS AND MATURITY.

A. The curriculum should provide for continuing progress toward the goal of employment within the field of training.

B. Special classes would be necessary to provide for background training for those students who are handicapped from lack of formal education. Special instruction and tutoring could be established in the evening hours.

IV. A LEARNING CENTER SHOULD BE PROVIDED AND EQUIPPED FOR THOSE WHO WOULD NEED THIS SERVICE

A. Special equipment such as reading and math labs would be needed to assist the teacher in providing basic instruction for disadvantaged persons.

B. Complete library service, teaching machines and other learning equipment would be needed to implement a complete program.

V. PARTICULAR ATTENTION TO TRADITIONAL ACCREDITATION WOULD NOT BE NECESSARY.

A. Unless the state plan calls for certain accreditation.

B. Unless it is desirable for certain students to fulfill requirements for a high school diploma as prescribed by the State Board of Education and local participating high schools.

C. The vocational part of the curriculum should be designed to lead to immediate employment but not necessarily lead to a certain degree.

VI. GENERAL EDUCATION SUBJECTS TAUGHT IN THE INSTITUTION OR ARRANGED THROUGH A LOCAL HIGH SCHOOL ARE ACCEPTED TOWARD HIGH SCHOOL CREDITS.

A. Teachers should be qualified under state provisions so as to make high school credits possible where desirable.

B. Teachers of General Education Courses should have a working knowledge of the vocational courses being taught so that the two could be correlated.

C. If arrangements are made for the local high schools to offer accredited courses, the length of the course offering should be correlated with the length of local school schedules.

VII. COURSE OBJECTIVES OFFERED AND EQUIPMENT USED SHOULD, THROUGH ADVISORY COMMITTEES, BE CORRELATED WITH THE STATE MANPOWER REQUIREMENTS.

A. Each vocational course offered should be planned with an Advisory Committee made up of employers in that field.

B. Some instructional equipment may be provided through the Advisory Committees with little or no cost to the school.

C. Equipment used should be of the type used by employers in the state. (Determined through close contact with Advisory Committee.)

VIII. STUDENT - TEACHER RATIO

A. Teacher loads should be maintained at such levels as to produce as much individual help to each student as possible. (Student-teacher ratio 10 to 1.)

B. Teacher load should be determined in connection with the training equipment available for each classroom or shop.

C. Teacher load should be at such a level that the teacher may demonstrate effectively in the shop what has been discussed in the classroom.

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On

FACULTY AND STAFF REQUIREMENTS AND QUALIFICATIONS FOR OPERATING A RESIDENTIAL VOCATIONAL SCHOOL

Robert M. Small

February 26, 27, 28, 1969

FACULTY AND STAFF REQUIREMENTS AND QUALIFICATIONS FOR OPERATING A RESIDENTIAL VOCATIONAL SCHOOL

Robert M. Small

INTRODUCTION

A highly trained, experienced, vocationally competent and enthusiastic staff is one of the most important factors in the success of any program of vocational education. The unique staffing required for a residential vocational school will necessitate that a differentiation be made between those staff members involved in the instructional process and those involved in supportive services. The terminology, for the purpose of this paper, will designate the instructional personnel as faculty and those involved with non-instructional duties will be referred to as staff, administrators, professional service personnel, and service pesonnel.

I. FACULTY AND STAFF REQUIREMENTS AND QUALIFICATIONS FOR OPERATING A RESIDENTIAL VOCATIONAL SCHOOL

A. The residential vocational school will be providing a "Total Youth" education for many students with serious socio-economic handicaps.

The administrators, staff and faculty will need to be specially qualified and competent to deal with and understand these students. In addition to the specialized requirements, listed later, these staff and faculty members will need to possess personal traits that will facilitate their transcending these areas of specialization.

Personnel should be innovative and flexible, and should possess a sincere belief in the worth of all human beings.

Periodic in-service seminars, concentrating on the special needs of these youth, should be required of all personnel.

B. Overall student-school employee ratio, 1,000 to 287 (3.5 to 1)

Administration	7
Staff	101
Faculty	109
Professional Services	27
Services	43
	287

C. Personnel requirements for a residential vocational school of 1,000 students

1. Administration

Director	1
Assistant Director	1
Business Manager	1
Residential Supervisor	1
Vocational Supervisor	1
Pupil Personnel Service Supervisor	1
Academic Supervisor	1
	7

2. Staff

Dorm Leaders	7
Dorm Counselors	72
Recreation Specialists	20
Social Coordinator	1
Bookkeeper	1
	101

3. Faculty

Vocational Instructors	54
Vocational Assistant Instructors	8
Academic Teachers	40
Teacher Aides	4
Audio-Visual Coordinator	1
Program Learning Center Staff	2
	109

4. Professional Services

Head Counselor	1
Vocational Counselors	9
Psychologists	2
Nurses	4
Doctor	1
Dentist	1
Student Accounting Coordinator	1
Speech and Hearing Therapists	2
Curriculum Specialist	1
Public Relations Specialist	1
Placement and Recruitment Team	4
	27

5. Service

Clerical	8
Custodial	4
Maintenancemen	3
Bus Drivers	2
Boiler Firemen	4
Security Guard	4
Utility (laundry, transportation, etc.)	2
Food Service Manager	1
Head Cook	1
Cooks	6
Food Service Workers	8
	43

II. SAMPLE ORGANIZATIONAL CHART OF FACULTY AND STAFF — BASED ON A STUDENT POPULATION OF 1,000

DIRECTOR

Assistant Director

Business Manager

Bookkeeper (1)
Custodians (4)
Maintenancemen (3)
Bus Drivers (2)
Boiler Firemen (4)
Security Guard (4)
Clerical (1)
Utility (2)

Administrative Secretary (1)

Curriculum Specialist (1)

Public Relations Specialist (1)

Placement and Recruitment Team (4)

RESIDENTIAL SUPERVISOR

Dorm Leaders (7)
Dorm Counselors (72)
Recreation Specialists (20)
Social Activities Coordinator (1)
Food Service Manager
Head Cook
Cooks (6)
Food Service Workers (8)
Clerical (2)

VOCATIONAL SUPERVISOR

Vocational Instructors (54)
Vocational Instructor Assistants (8)
Clerical (1)

PUPIL PERSONNEL SERVICES SUPERVISOR

Head Counselor (1)
Vocational Counselors (9)
Psychologists (2)
Nurses (4)
Doctor (1)
Dentist (1)
Student Accounting Coordinator (1)
Speech & Hearing Therapists (2)
Clerical (2)

ACADEMIC SUPERVISOR

Teachers (40)
Teacher Aides (4)
Audio-Visual Coordinator (1)
Program Learning Center Staff (2)
Clerical (1)

III. STAFF AND FACULTY QUALIFICATIONS (Recommendations)

A. State Certification

1. Director — Masters Degree, Vocational Administration
2. Assistant Director — Masters Degree, Vocational Administration or Pupil Personnel Services Administration
3. Academic Department Supervisor — Masters Degree, Secondary Administration
4. Pupil Personnel Services Supervisor — Masters Degree, Pupil Personnel Services Administration
5. Vocational Supervisor — Minimum of B. S. Degree, Vocational Education
6. Academic teachers — State certification
7. Vocational counselors — Masters Degree, state certification
8. Psychologist — School Psychologist state certification
9. Nurses — R. N.
10. Audio Visual Coordinator — Masters Degree, Audio Visual

11. Program Learning Center Staff — Masters Degree, Library or Curriculum

12. Speech & Hearing Therapist, Curriculum Specialist, Student Accounting Coordinator, Public Relations Specialist — Masters Degree, major in specialty

13. Recruitment and Placement Team — Masters Degree, Counselor certificate

B. Special Qualifications

1. Vocational Instructors — Minimum of 7 years vocational experience, high school diploma or equivalency

2. Vocational Instructor Assistants — Minimum of 7 years vocational experience, high school diploma or equivalency

3. Residential Supervisor — High school diploma or equivalency, some post high school studies in sociology and/or psychology and experience with youth

4. Dorm Counselors — High school diploma or equivalency, experience with youth

5. Food Service Manager — High school diploma or equivalency, experience in institutional food preparation and management

6. Bookkeeper — High school diploma or equivalency, Business Education in bookkeeping

7. Business Manager — C. P. A.

8. Teacher Aides — High school diploma or equivalency, art and/or clerical background

9. Recreation Specialists and Social Activities Coordinator — High school diploma or equivalency, experience in specific areas of recreation

NATIONAL CONFERENCE
RESIDENTIAL VOCATIONAL EDUCATION

Oklahoma State University School of Technical Training
Okmulgee, Oklahoma

WORKING PAPER

On

EMPLOYMENT AND FOLLOW-UP OF STUDENTS FROM A VOCATIONAL SCHOOL

James P. Jones

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EMPLOYMENT AND FOLLOW-UP OF STUDENTS FROM A RESIDENTIAL VOCATIONAL SCHOOL

James P. Jones

America is facing a manpower shortage of tremendous proportions. It correct solutions are not found and programs carried out, the nation is faced with a staggering manpower shortage that will limit industrial growth and adversely affect the quality of American life.

It may seem paradoxical or contradictory to talk about a manpower shortage crisis when we have unemployment in the range of 3 to 4 million people. Why is manpower in short supply while several million Americans are unemployed? A significant part of the answer lies in one word — **Skill.** The want ads on the classified pages of our newspapers plead for skilled people. Pick up any paper and you see an abundant number of jobs going for mechanics, electricians, instrument technicians, designers, draftsmen, chefs, accounting clerks, machinists and many other skilled craftsmen. The opportunities are for the vocationally trained and the skilled practitioners.

On the other hand, those who are unemployed and seeking jobs fall into two categories:

1. The untrained, unskilled person who has not had (or not wanted) the chance to obtain a marketable skill (often high school drop-outs and minorities), and

2. Others who once had a recognized skill but who have become industrial washouts due to skills obsolescence, automation, and relocation of industry or business.

The vocationally trained individual has little trouble in finding well-paying, rewarding jobs. In many cases, the vocationally educated, skilled person has trouble not in finding a job but rather in choosing between the large number of job opportunities that are available to him.

In every state, there are thousands of untrained, unskilled persons who lack only the proper preparation, the encouragement and the opportunity to make a valuable contribution to the economy and the nation. Our failure to train them for constructive output, indeed our ignoring them in our educational system, is proving economically and socially disastrous. We must train or retrain the idle and underemployed on a qualitative large scale for long-term employment in industry. Surprisingly today, many young people are ignored in our educational hierarchy. We work on the premise that everyone must have a complete four-year college education and become an office-type professional. Parents, teachers, counsellors, industrialists and practically all other influential members of our modern society are the high priests of a complete college education for all. We are all guilty of forcing our young people into one educational slot. This stifling effect imposed on many of our youth from the cradle onward may be in itself contributing greatly to the educational drop-out, wash-out, and burn-out problem. We, as a nation, are so college oriented that we cannot properly guide and direct certain young people into vocational training for which they are best suited, in which they have the best chance of success, and in which they may have the highest interest. In our enthusiasm for college education, we imply second-rate treatment for the non-college youth. He or she may realize early that there is no need to complete high school unless he is mentally, financially and socially equipped for at least a B.S. degree.

The Job Spectrum

The pressing challenge of today is how to provide quality vocational

education and training to increasing quantities of students who are vitally needed in our present and future work force. Our society demands more and more skilled manpower at every level. A brief look at our job spectrum shows the dire need to reinforce basic elements of our nation's work force, namely the skilled craftsman and the technicians.

Unskilled Labor	**Skilled Craftsmen**	**Technicians and Semi-professionals**
School drop-outs	Current and continuing shortage	
Economically disadvantaged	Need: Residential Vocational training and educational schools.	
Socially ignored		
Mentally unprepared		

Professionals— Engineers, Scientists, Accountants, Lawyers
Mass educational facilities are available or are being developed to combat shortages.

Now is the time to expand the process of training the skilled worker, the educated craftsman, and the productive technician. The growing disparity between the professional and the skilled worker is cause for great alarm. The skilled worker is essential to carry out what is invented and created. If the shortage of the craft labor force grows, we will be faced with lower standards of workmanship, poor quality of manufactured goods, and the inability to compete with foreign imports. In the late 1700's, the first of the modern economists, Adam Smith, wrote that the true wealth of any nation essentially rested on the skill of its people. His thought was that the progress of any nation depends on trained human resources. John Gardner, as Secretary of Health, Education and Welfare, more recently said that we must strive for excellence in both **plumbing** and philosophy, so that our **pipes** and our theories alike will hold water.

Across-the-Board Excellence needed in Vocational Training

Our nation's vocational schools must be more directly concerned with upgrading a larger part of our manpower resources. Our industries today can't really tolerate poorly trained workers. We are seeing such rapid change in industry that it is no longer possible for the person without sound educational fundamentals to make a lasting career. In many respects, industry's rapid changes have outrun our education's capacity. In the past, many vocational education programs have served to train only in a narrow and specialized way for specific skills that become quickly obsolete. Today, basic educational fundamentals should accompany the development of manual skills. Most people will have jobs that will change in nature two or three times during their lifetime. Vocational education has the challenge to enable its graduates to make occupational changes and keep up with the times. (Example: vacuum tube to transistor to integrated circuits before most of us learned what solid state means)

The vocational school can best serve its students by preparing them for the process of life-time adaptability. It is no longer proper or humane to train a man simply for "a job". The man who cannot keep up with changes will soon become obsolete. The school that cannot train a man for tomorrow, not just for today, is a national disgrace. New processes, new products, new methods and new services are developing too rapidly to equip a man only for one specific skill or operation. This adaptability training can be done best by the residential vocational schools. The reasons are:

1. Modern vocational training requires large investments in training facilities, laboratory equipment and modern prototype machines based on up-to-date business and industrial needs. For example, no school is now complete without some type of data processing equipment, electronic metering devices, and automatic office machines.

2. Instructors and teachers in vocational schools must have the opportunity to work in a broad environment. Without it they become sterile and

obsolete overnight and ineffective as teachers. A wide scope of faculty talents, skills, background, and thinking encourages faculty updating and cross-linking of ideas.

3. Career failures are based on two lacks:

   (1) The lack of technical and manual skills, and

   (2) Equally important, the lack of social and communication skills. This latter success requisite can best be developed on the residential campus where students must necessarily practice living, working and cooperating with others. The art of becoming a team member is quite essential these days in industry, government, or business.

Adequate Placement Services and Employment Counseling

At the end of the training trail, there must be good long-range job opportunities. The residential campus provides an excellent contact point and recruiting center to bring together the vocationally trained student and the industry and government recruiter, and offers the best placement of students in diversified, challenging career opportunities. In a sense, proper job placement of each student, according to individual skills and interests, is the end product of vocational education. The worst thing that can happen to any educational institution is for its graduates to lack good employment opportunities. The residential school can offer a broad marketplace for the student and the employer to exchange information.

A major employer can come to a residential school to offer a wide cross-section of job opportunities. One employer, for instance, may have jobs for 10-15 different types of skills in various activities. As an example, my own company may have openings for electronics students in research, instrumentation, automation, and equipment repair in such departments as plant manufacturing, supply and transportation, oil and gas production, geophysical exploration, instrument development and communications. Locations range from the Gulf Coast to the North Slope of Alaska, including overseas work in addition.

The institution has a definite responsibility, both to its students and to the nation, in providing a first-class placement center for its students. To do this, each institution must work closely with employers to promote the quantity and quality of its product. In order to develop an effective placement system, the school must maintain close contact with industry. The school must know what skills are needed, the developing trends in manpower utilization, plans for growth and development, and new demands that will be placed on future craftsmen and technicians. A central placement center under the direction of a competent director has responsibility beyond the mere finding of jobs for students. It also should furnish realistic counsel and guidance to insure that each student has full opportunity to choose his best long-range career plan. Young students quite often cannot see beyond their initial assignment and starting salary.

In addition, the placement center has a responsibility to design resumes — to summarize a student's qualifications so that each student has equal opportunity to be considered for job openings. Attracting industry to the campus to promote wide opportunities for all students is also a responsibility of the placement center. The placement office must insure that each student has the chance to reach his full potential. The placement office must regulate the transition from school to employment, rather than just casting the students out and letting them fend for themselves in the complexities of today's labor market. The placement office provides the vital link between the classroom and the employer. Training for the student in how to sell himself, how to evaluate employers, etc., must be a part of the residential school's responsibility.

Basic Elements of Good Placement Services

1. A centralized placement center where all students can come for:
   A. Guidance on career opportunities in various industries, government agencies and other employers.
   B. Individual counseling and appraisal to assist in determining or solidifying his own work objectives and most suitable position.
   C. Assistance and help in preparing personal data sheets and resumes reflecting his training, experience, interests and background.
   D. Scheduling interviews or correspondence with prospective employers.
   E. Private, individual interviews with campus recruiters.
2. Physical Facilities
   A. Library and reference materials on career opportunities, job descriptions and employers.
   B. Private, quiet interview booths for face-to-face discussions between students and campus recruiters.
   C. Nearby phone, cloak closet and rest room facilities for campus recruiters.
   D. A moderate amount of lobby or waiting space for students and recruiters.
   E. Bulletin board to announce the visit of employers and post job notices.
3. Placement Staff
   A. A full-or part-time placement director who is fully responsible for the efficient operation of a campus-wide placement center, including guidance and counseling of students. This placement director must be dually qualified both as a spokesman for the college and an ex-officio representative of employers. He must know the school, course content of various training disciplines, the student, the faculty and the employer. He should handle campus employment, part-time employment, co-op employment, summer employment as well as regular placement services. He should be the relations-with-industry link for the school. However, he should encourage and promote (rather than interfere with) faculty-industry contacts.
   B. Adequate secretarial help to handle correspondence, prepare student data sheets, supervise signing up for campus interviews, coordinate scheduling of employer recruiting visits and arrange faculty-recruiter luncheons.

Follow-Up Services

It is essential that the institution follow up on its graduates. It cannot afford to lose sight of its responsibilities to its students once the students leave the campus. It must continue to inspire and motivate individuals to higher levels of achievement, productivity and advancement. Through continued contacts, the school should help the student avoid stagnation and obsolescence by on-campus retraining programs, cooperative efforts with employers and by dissemination of new technical data and information.

Additionally, the school should continue to offer placement services and advice to those who may wish to change jobs or enter new fields of endeavor. The school has a continuing responsibility for assisting in life-

long placement and utilization of skills. In many cases, the placement office may wish to use the services of the state employment offices and the various federal agencies to develop new opportunities for its graduates. State employment offices can nearly instantly ferret out job openings throughout the U. S. by means of their communications network.

The School and Employer: A Necessary Association

In order to form effective training and placement procedures, we must work within a system. We cannot operate in a procedural vacuum. Residential vocational schools can develop this system — a communications system. For the school, it means more than obtaining financial support and scholarships. It should include an awareness of job requirements, familiarity with manufacturing and office techniques, and an enthusiasm for teaching modern up-to-date skills based on case histories. Similarly, if industry and government want to influence the training processes in order to obtain a better graduate, it needs continuous contact with the teachers and school administrators. Basically, residential vocational school is a communication system. Its function is to harness faculty and industry into a common knowledge network and utilize this network for making life more secure, more enduring and more meaningful for the students.

Conclusion

The habit of work and study — the flywheel of a man's life — is ingrained by training and association. Many young people in today's world are faced with one overpowering question: How do I fit into the scheme of today's complex industrial world? It is quite easy for a young person to feel he is such a tiny island in the vast, restless sea of mankind that he wonders if he might not be totally engulfed by the futility of it all. That is why residential vocational schools exist — they are the essential outposts in the preparation of young people for a productive, contributing life.

At vocational schools such as this we are creating a better way of life— a skill and a state of mind — by equipping young men and women with applicable knowledge. They come here with uncertainty and indecision — they leave knowing they have mastered an art, a skill, a trade which makes them wanted and needed. They are converted into a desired commodity in the nation's work force. To develop such a school as this, we must provide the best of instruction and the best of facilities. But, in laying stress on the practical, we cannot forget that each student is being trained also as a citizen and as an individual.