Education through manual labor: a comparative study of selected self-help schools in the United States and Africa.

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EDUCATION THROUGH MANUAL LABOR:
A COMPARATIVE STUDY OF SELECTED SELF-HELP SCHOOLS
IN THE UNITED STATES AND AFRICA

A Dissertation Presented
by
GORDON L. SCHIMMEL

Submitted to the Graduate School of the
University of Massachusetts in
partial fulfillment of the requirements for the degree of
DOCTOR OF EDUCATION

December, 1973

Major Subject: International Education
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December, 1973
For My Mother and Father

who first taught me the value of
self-help and manual labor
ACKNOWLEDGEMENTS

There are numerous people who assist in many ways with a study such as this. Unfortunately, it is not possible to mention all of the busy people who took time from their responsibilities to participate in interviews, make suggestions or locate additional material. However, special thanks are due to Mr. Peter Rees, the Director of the Putney School; Dr. William Laramee, Associate Dean of Students at Berea College; and Mr. Dennis Tippo, Assistant to the President of Warren Wilson College, all of whom were invaluable in providing information, arranging interviews with key staff and students and offering constructive criticism. Their assistance, and the countless others at Putney, Berea and Warren Wilson who helped me understand the dynamics of manual labor programs, is most appreciated.

This study represents only a portion of my learning experience at the School of Education, and a special acknowledgement must go to the three men whose assistance with my doctoral program, as well as with this study, has been paramount. Dwight Allen, David Evans and "brother" David Schimmel have been the core of my educational experience here at the School through their participation on my Program Planning Committee, Comprehensive Examination Committee and finally, as part of my Dissertation Committee. Their encouragement and support, as friends and colleagues, as well as mentors, has meant more to my education than these few phrases can express.
Dr. William Venman was also especially helpful as one who joined the Dissertation Committee and was able to provide much-needed perspective for those of us who had been too close to the topic for too long.

Finally, thanks go to Steve and Pat Guild, whose encouragement, sense of timing (knowing when not to ask how the study was going) and support when the pressure was on, is gratefully appreciated. Special thanks also go to Nancy Kaminski for her patience and perseverance with a difficult manuscript.

I am indebted to all who have given their encouragement, support and assistance to this effort.
EDUCATION THROUGH MANUAL LABOR: A COMPARATIVE STUDY OF SELECTED SELF-HELP SCHOOLS IN THE UNITED STATES AND AFRICA
(DECEMBER, 1973)

Gordon L. Schimmel, A.B., DePauw University
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ABSTRACT

This study of five manual labor programs in the United States and Africa focuses on institutions which make student handwork an official part of the educational program. Such programs have been developed to provide new educational alternatives to reduce rising costs, to equip students with basic skills and to minimize personal alienation.

The study has three purposes:

1) To establish a record of the accomplishments and failures of selected self-help, manual labor institutions in industrialized and non-industrialized settings.

2) To examine these programs' educational objectives, the nature of their skill training and character development which result from them.

3) To determine ways in which such programs enable students and institutions to reduce educational costs.
The study begins with an historical examination of early programs, from the early days of Pestalozzi, Froebel and Von Fellenburg, through the Manual Labor Movement in the United States during the 1830s, to the creation of Oberlin and Berea Colleges. Two of John Dewey and Evelyn Dewey's examples of 20th-century manual labor schools are discussed, as are two rural community schools which were constructed in the American South.

Following this historical development of the European and American antecedents of manual labor institutions, three American and two African cases are discussed and analyzed. The Putney School, Berea College and Warren Wilson College are presented, followed by a description and analysis of the village polytechnic program in Kenya and the brigade program in Botswana. Differences in educational objectives, special characteristics of the institution, work program elements, types of supervision, methods of student remuneration, institutional "maturity" and economic setting are some of the dimensions which distinguish the programs in America from those in Africa.

Several tentative conclusions are discussed in the final chapter. A few of the major ones are:

-- While the American programs stress the character-building aspects of manual labor, the African projects emphasize skill training and self-employment.

-- The more a self-help program attempts to cover costs through student labor, the greater the need for productivity and on-the-job learning.
-- Vigorous physical labor seems to be the norm for schools struggling for survival, but as the institution "matures," projects become less physical and more administrative or service-oriented.

-- Simple construction projects are most appropriate due to lower costs, easier construction techniques and less time required for completion.

-- Little information is available to indicate that any of the programs have achieved complete cost-covering and self-support through student labor.

-- In both Africa and the United States, student motivation is likely to be higher if students choose a manual labor school rather than attend through financial necessity.

The study concludes with a preliminary checklist of questions to be considered by educators who might be interested in beginning a manual labor program. These questions (which concern issues of skill training, instructional format, student and staff orientation and support, evaluation and systems of remuneration) are offered as a step toward the creation of a handbook—a inventory of options which could be adapted to numerous local needs.
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**I** Berea College Student Labor Program
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**II** Preliminary Classification Schedule

**III** Pay Grade Schedule
CHAPTER I

IMPORTANCE OF THE STUDY, RATIONALE, GOALS
AND METHODOLOGY

The act of self-help is as old as man himself, the beginnings of which are lost in some primordial time when the planet's early inhabitants took initial steps to improve their lot. Manual labor has been with human existence equally as long.\(^1\) And, these two activities probably have been inseparably linked, from the days when man began to cultivate plants and herd animals rather than wait for the season or happenstance to provide nourishment.

However, the development of mankind's cerebral powers in the form of academic study is a relatively recent newcomer in history, creating a role for itself only during the last two millennia. It is the unification of practical activities, such as manual labor and self-assistance, together with the development of the mind, encompassed informal academic work, which is the focus of this study. As will be shown, the tradition of linking the practical with the theoretical goes far back in recorded history, and it is the purpose of this study to examine current-day manifestations of this linkage—to see

\(^1\)More complete definitions of "self-help" and "manual labor" will be provided on the following pages.
how past experience and present practice can be applied to educational problems and issues in industrialized and non-industrialized nations.

Importance of the Study: Significance of Self-Help Schools

Perhaps the need for this study has never been greater than it is today because self-help manual labor schools could provide a partial solution to educational problems in both industrialized and non-industrialized countries. To understand how manual labor programs can be relevant to problems in such seemingly diverse settings requires a brief look at some of the educational issues facing industrialized and non-industrialized nations.

The educational crisis in industrialized nations in recent years has called into question the worth of some of the programs being offered, as well as some of the values of the social system to which these programs are geared. Despite the affluence and high standard of living achieved by many industrialized nations, it is possible that pushbutton living and too much reliance on service personnel have produced a generation whose intellectual and cultural sophistication may be unsurpassed, but whose confidence and capabilities in basic manual tasks may have begun to atrophy. The alienation which can result from this situation has been a discussion topic for sociologists for years. Alienation from useful work can result in social and political alienation and deep personal estrangement. The American educator, John Dewey, saw schools which incorporated manual
tasks into their curriculum as a major force in overcoming the dis-
tance which industrialization has opened up between man and his sources
of consumption, production and creativity. Learning self-discipline, in-
dependence, and how to get along with others, as well as a manual
skill or two may offer a partial solution to some of these problems.

In addition, the self-help, manual labor model may provide some
assistance to the educational needs of developing countries, particu-
larly for those students in many African nations who are forced out
of school, due to failure in the examinations, and those who are
"school-leavers," or drop-outs. Both of these groups of students
have few opportunities for upward mobility once they are separated
from the formal school system. Alternative routes to self-improvement
and full employment are extremely limited in most countries, with
few places being available and admission being as difficult in the
vocational and technical as in the academic system. The self-help,
community school model might be able to serve some of this out-of-
school population and make a contribution to African development.
Self-help schools could play an important role in non-industrialized
as well as industrialized nations. The nature of this role in each
setting is clearer upon examination of some of the features of manual
labor programs.

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2John Dewey and Evelyn Dewey, Schools for Tomorrow (New York:
First, the educational benefits from manual labor are always a part of any discussion of a school work program. Skill training is the most obvious benefit to students who master a craft through manual labor. Other "character-building" results are also mentioned by almost every school with a labor program. Teaching students the value of work with one's hands, teaching independence and responsibility, teaching respect for and cooperation with one another, are phrases frequently invoked to describe additional educational objectives. These objectives are relevant for both "developed" and developing nations. It is possible that a manual labor program could provide a useful practical complement to the traditionally more academic schools in industrialized nations. The work would permit students to take more responsibility for the operation of their institution, a step which could bring them closer to determining more about the school's direction and administration. The experience in decision-making and taking responsibility for the initiation and implementation of projects could lead to a better understanding of and appreciation for the practical problems associated with the operation of the institution. In addition, students would have the opportunity to learn skills which, at the very least, could provide them with useful hobbies and avocations in later life and, at most, might become primary or alternative employment. Finally, the work might provide a welcome contrast to the classroom-based academic study. The rewards of acquiring a practical skill or seeing a project through
to completion could offer a different type of challenge and stimulation to many students.

There seems to be relevance in these educational objectives of self-help for school-leavers in Africa. If basic skills could be learned through a manual labor program, students might have greater opportunities for employment and advancement in the country's labor market. Even if employment in the "modern sector" was difficult to obtain, students might be better prepared to return to their own standard of living, if they had been through a manual labor school. The practical skills, in addition to the coursework in practical math, the local language, the lingua franca, and the cultural and commercial studies would place any self-help school graduate at an obvious competitive advantage over others seeking employment in the labor market. The resourcefulness, independence and cooperation which make up the character-building aspects of work programs coupled with manual, literacy and numeracy skills would better equip many school-leavers to be self-sufficient.

Another possible benefit from self-help programs for industrialized and non-industrialized countries is some reduction of educational costs—both in construction and maintenance. Facilities built and maintained by staff and students, though taking more time to complete and usually not as sophisticated as those undertaken by contractors, are perfectly adequate and less expensive to construct and maintain. While non-professional projects are always more modest, it is not
difficult to establish a rationale for lower construction costs where funds for school expansion programs are in short supply. Given competing demands for educational funds, self-help programs may be a feasible alternative for governments seeking to establish new ways to reduce educational costs.

A final, less obvious benefit of self-help schools might accrue to the local communities where schools are built. Creation and maintenance of a school need not be a project reserved solely for the students and staff of the institution; the construction of a school could serve as a catalyst in the area, which could focus attention on problems and needs of other members of the community. Local help might be enlisted for the effort, bringing together people with skills who could serve as builders and teachers. Once constructed, the school might serve as a community meeting and adult education center for area residents, a facility which would, no doubt, find many uses in organizing the population around other problems while making a contribution to upgrading the general educational level. The work of self-help schools need not stop at the campus gate; agricultural, home improvement and community health projects are just a few of those which could become part of education-through-service programs conducted by these institutions.

In summary, manual labor programs could offer important additional educational opportunities and possible financial savings to institutions in both industrialized and non-industrialized nations.
Rationale and Goals of the Study

Despite the possible potential of self-help, manual labor schools, little systematic study has been carried out to determine what, if any, generalizable characteristics exist between institutions. Various separate histories have been done over the years of different schools and projects which have utilized manual labor. Peck's study of Berea College,^{3} Fletcher's two-volume work on the history of Oberlin College,^{4} and Washington's description of Tuskegee's development^{5} are good cases in point. Each author devotes a chapter to a discussion of the manual labor program, but the authors focus only on the tasks and projects at the institutions under study; no comparative examination of the school with other similar institutions is included.

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Four additional works by Bennett, Weld, John Dewey and Evelyn Dewey, and McCharen are important to the literature as histories of numerous manual labor institutions. Each of these studies sets out details of many programs in which manual labor played a major role in the education and self-assistance of students, but again little analysis which would permit comparative and contrastive overviews between institutions is available. Weld's 1833 study proposes several advantages to manual labor and discusses problems which seem common to those institutions he visited, but little has been done since this time which would address today's educational issues. What is needed is current study of selected schools which would help present-day administrators go beyond the frequently romanticized generalizations about the value of manual labor. Educators in industrialized and non-industrialized nations need specifics concerning present programs to help them with their own decisions about design and implementation as they consider the possible adoption of a manual labor program.


8 Dewey and Dewey, op. cit.

The purpose of this study is to provide some of these specifics, as well as to begin the process of arriving at generalizations about the educational and financial features of manual labor institutions which could meet some of the educational needs of both industrialized and non-industrialized nations. Therefore, the goals of the study are threefold:

1) To establish a record, in the past as well as current-day, of the accomplishments and failures of selected self-help, manual labor institutions in industrialized and non-industrialized settings.

2) To examine the educational objectives of these programs to determine the nature of skill training and character development which result from the program.

3) To determine, insofar as possible, the ways in which manual labor programs enable students and institutions to reduce educational costs.

The first of these objectives will include a study of selected historical antecedents to manual labor as it is incorporated in present-day programs. Selected current manual labor programs in the United States will be used as examples from an industrialized setting, while programs in Africa will be used to illustrate the dimensions of non-industrialized settings. The second objective will permit evidence to be assembled concerning details of skills being taught in labor programs, as well as links to academic work, types of
experiences which are organized to promote decision-making, independence and other "character-building" qualities which are mentioned as part of most programs. Finally, the last objective will be to focus on the financial aspects of the projects to determine how much is known about the costs and benefits of student manual labor. Methods of remuneration and examples of significant savings to the institution will be investigated and described.

The Self-Help, Community School: A Definition

Before turning to the details of this study, it is necessary to establish a working definition of the kind of schools being examined and the type of program they offer. A confusion of terms exists, some of which have taken on different meanings through educational history, while others are used to describe contemporary schools and current projects around the world. What is a self-help school? Is it the same thing as a high school work-study program? How is it similar to or different from the co-op programs operated by some American colleges and universities? Is such a school part of a national student service program, such as that required of all university students in Ethiopia? How does a self-help school resemble youth work camps? How is it different?

For purposes of this study, a self-help school will be defined as an institution which makes student manual labor an official part of its educational program. The labor may be of financial benefit to
the student by paying him a salary or by reducing his tuition costs. The institution gains from the work which is done, but may also benefit in less direct ways, such as gifts and grants which it receives specifically because of its work programs. The labor performed by the student may or may not be purely physical, the major requirement being that the work be a regular part of the school's program. The school's academic faculty may or may not supervise all of the work projects.

A self-help school may include these additional features: it may be as small as twenty to thirty students or as big as a large secondary school or small college (one thousand to fifteen hundred students); a self-help school can be co-educational, educating students either at the secondary or college level; although it may receive funding from outside sources, public or private, the work program must in some way account for support (either in savings or income) for the institution as an act of "self-assistance"—or self-help. Further, a self-help school may have some contact with the area in which it is located, either in utilizing the community's resources (teaching staff or facilities) or in providing a service to the community.

Finally, the definition of self-help schools need not be strictly limited to "academic" institutions which include manual labor as a part of their educational program. The schools might also be basically skill training institutions, such as trade or industrial schools, which
concern themselves more with teaching manual crafts than academic courses. Again, the criterion for including this type of school in the category of self-help schools turns on the extent to which the school makes manual labor part of the effort to support itself, and the extent to which this kind of student participation in self-support is part of its educational philosophy.

The dimensions of a self-help school might be more clear if the kinds of educational institutions which involve themselves with manual labor are distinguished from the features described above. A kind of program which is similar to and frequently confused with what has been defined here as self-help is what is sometimes known as a "co-op" program.

The Co-Op or Work/Study Program

High schools and colleges in North America conducted work/study programs for many years. Usually these programs consist of academic study which is alternated with full or part-time employment in a job which complements the academic work. High schools have made on-the-job experience part of their industrial and commercial programs for many years, with students frequently taking as much as a half-day off from school for work in a nearby shop or business establishment. The students are usually paid minimum wages for their work and receive credit towards graduation for their experience.
Antioch College has pioneered a similar program for several years, requiring that its students spend every third quarter off campus working in a job which is allied with their area of interest. Several other colleges and universities in the United States have adopted similar programs, seeking to bring more experiential learning into academic study. Some of the oldest and most common forms of a co-op program is the professional internship which permitted prospective doctors, teachers, lawyers or engineers to acquire practical experience during their training.

The feature which most clearly distinguishes work/study and co-op programs from a self-help school is that the benefits of the student's labor go only to him and are not directed to the institution. Most of these programs involve some remuneration to the student; while this may be similar to some self-help students' method of paying students, it is clear that the benefits of the students' labor goes to their place of employment, rather than to the school. Another related aspect is that the students spend little time on campus: work/study students leave high schools for portions of the school day, and college co-op students sometimes leave campus for two or three months. The self-help school, which is the focus of this study, employs students for its own growth and maintenance. In some instances, a few students may work in off-campus service projects for the local community which bring public relations benefits to the school; but the bulk of the students remain on-campus, employed in activities which relate directly to the school's operation.
Youth Camps and Programs of National Service

Youth camps have been popular in the United States and Europe for many years. In the United States the camps have been under private direction and ownership, many of them being church or scout-related organizations. Some European youth camps are privately operated, while others are national organizations. Interest in national youth camps recently has grown in developing countries, and programs of national service such as those being tried in Ethiopia, Kenya and Tanzania are relatively new. The youth camps are usually convened for a period of a few weeks to a few months to complete a specific project, whether it be planting orchards, building roads or schools. The national service programs of Kenya, Tanzania and Ethiopia are operated year-round, and also have public service projects as their objective. In addition to national service, participants teach in many understaffed rural elementary and secondary classrooms.

There are several differences between self-help schools and these programs. Youth camps are temporary manpower pools, focussed on specific projects, while national service programs have many of the same objectives but on a more continuous basis. Although the experiences they provide are educational, they are not organized as educational institutions. Skill training classes are not a major part of the program, with the task at hand being the primary objective. In contrast to self-contained manual labor schools, national service
programs are country-wide organizations attracting members from all parts of the country who are given teaching or work assignments singly or in small groups. The most obvious similarity between youth work camps, programs of national service and self-help schools is the common element of youth doing useful labor. Here, for the most part, the similarities end.

Summarizing, the self-help school, which is the focus of this study, is an institution where, as a part of the educational program, students perform manual labor. The reasons for this work are usually two-fold: the work will benefit the students educationally (it will add balance to their academic work, "build their character," "democratize" them, etc.), and the work will benefit both the school and the student financially. In contrast to work/study, co-op, and national service programs, as well as youth work camps, the labor is generally campus-based and school-related. The school may hold either academic or vocational objectives as primary, but both kinds of activities are included in the program of study.

Dimensions to be Examined

There are many aspects of self-help schools which seem to be universal in most institutions. For convenience and clarity in discussion, these elements can be grouped into several categories: Institutional Characteristics, Work Program Elements, Educational Aspects, Supervision and Finance. Each of these categories consists
of sub-categories which have been rather arbitrarily grouped together, as indicated in the outline summary below:

Dimensions Present in Most Manual Labor Schools

I. Institutional Characteristics
   A. Size of student enrollment
   B. Student background information (when available)
   C. Faculty size: Outstanding features
   D. Historical evolution of the school
   E. Background information on the local community

II. Work Program Elements
   A. Labor program objectives
   B. Work schedule
   C. Types of jobs available
   D. Unique jobs and services
   E. How labor supports the institution

III. Educational Aspects
   A. Work program orientation for students
   B. Skill training
   C. Forums for discussion of job-related problems
   D. Achievement of stated objectives

IV. Supervision
   A. Use of off-campus staff
   B. Faculty commitments
   C. Teaching responsibilities of supervisors
   D. Institutional support of supervisors

V. Finance
   A. Forms of remuneration
   B. Incentive programs
   C. Savings through labor program
   D. Relationship of program to other sources of support
Institutional Characteristics

This category is made up of those elements of a school which are similar to the background information on individuals, dubbed socio-economic status (S.E.S.) by social scientists. These are basic dimensions such as size of student enrollment, general information about their backgrounds, size of faculty and any unique characteristics they possess, historical evolution of the school (noting changes in grade level and objectives), relevant information about the community in which the school is located, as well as general information about the curriculum as it may or may not relate to the work program. Data for each manual labor school provides a context for a discussion of a labor/learning program.

Work Program Elements

The second category provides an umbrella under which the details of the manual labor program can be grouped—such as the stated objectives of the work program, the work schedule, the number and kinds of jobs available to students. Exceptional jobs, such as community service projects, positions which involve an unusual degree of skill, responsibility or independent initiative are dimensions which are part of the Work Program Elements category. Special work projects (such as summer programs) are also a part of this category. A final dimension is how the labor performed by students supports the
institution, whether it is consumed chiefly by the school or by markets external to the school—or a combination of both.

Educational Aspects

The third category combines those dimensions which specifically focus on the educational elements of the labor program. Taken together, these dimensions should provide some indication of how well a specific manual labor program lives up to its educational, training and character-building objectives. The orientation of students to the work program, the nature and extent of skill training given to students, the forums provided for discussion (job-related problems, the meaning of the labor program, "academic" study of role of work, interpretation of the program to various special student populations) are dimensions which are part of the educational objectives of most manual labor programs. Achievement of some of the educational objectives such as building independence of thought, decision-making skills and the development of cooperative relationships among peers will be difficult to document, while others such as the amount of skill training and the time spent in job-related discussion groups or classes should be relatively easy to record.

Supervision

The fourth category is a rubric for those elements of the labor program which pertain to the support students get from faculty and
staff of the institution. Issues such as whether off-campus staff are used for supervision of labor projects, the nature of faculty contracts and responsibilities for teaching in the labor program, the quality of training and support offered by supervisory staff and the nature of institutional support given to labor faculty and staff (orientations, in-service training) are part of this category. It will be seen that these dimensions are crucial to the efficiency and integration of labor into the life of the school.

Finance

This item combines three dimensions: the systems of remuneration for student workers; the types of incentive programs made available to students to enable them to earn extra income through labor; the savings which accrue to the institution as a result of the manual labor program; and how the system relates to the institution's other sources of financial support.

It should be understood that not all of these dimensions will be found in every self-help school. For example, information about the schools examined in the historical section of this study is rarely constant; while data on certain dimensions exist in some schools, they are absent in others. Likewise, the portion of the study dealing with self-help schools in Africa will not contain a discussion of every dimension for each of the programs. The historical and African
sections of this study are taken primarily from secondary source materials, many of which were written with diverse points of view and intents, making school-to-school comparison difficult. Most of these dimensions will be found in the three schools featured as case studies in Chapter III, but even here parity will not always be possible as priorities sometimes vary significantly between them. In short, these dimensions are not proposed as universal nor as all-inclusive; they arise as a distillation of elements which seem to be part of a number of selected self-help, manual labor schools.

Methodology

Concerning the cases done in America, limitations on funds and time restricted the selection of schools to be visited to three located in the Eastern portion of the United States. Aside from proximity, however, the three schools were chosen over others in the East because they were thought to represent some obvious diversity. As a secondary school operating one of the most widely-known work programs, the Putney School in Putney, Vermont, seemed to be a good combination of small size and considerable experience with manual labor. In contrast, Warren Wilson College had past experience as a secondary institution and had completed a transformation to a four-year college, while still retaining its work program. Its small size and highly-advertised work program which appeared to give a great deal of responsibility to students made it an attractive comparison with the Putney School.
Finally, Berea College, as the largest, oldest and one of the most celebrated labor programs in the country, was a logical choice for a third case study. The school's reputation for an extensive and diverse program coupled with over a hundred years of experience which began as a one-room school seemed to offer interesting similarities and differences with the first two cases.

Personal contacts were made with each school and two to three-day visits were made to study each institution and its work program. A semi-structured interview format was prepared to assist in the collection of uniform data from students, faculty and staff of the schools (see Appendix A). Because both the investigator's and school officials' time was limited, the respondents were selected randomly from those most directly connected with work programs; under the circumstances, selection of a truly representative sample of administrators, faculty and students was not feasible without the aid of campus-based investigators over a several-month period. While all of the schools visited would welcome such an effort, none are yet in a position to allocate the personnel to make this type of inquiry possible.

As for the cases selected for the African portion of the study, it was necessary to rely on secondary sources for most of the information. Two of the better known self-help projects in Africa are the village polytechnic in Kenya and the brigade program in Botswana. Relatively recent and extensive reports written on these projects made it possible to compare and contrast the features of these programs with those found in the three schools selected for cases in the
United States. The reports which exist on each of these projects were written following in-depth studies at numerous self-help project sites therefore provide useful data for this study. Additional perspective was obtained through the author's personal experience in East Africa, gathering data on career education and the teaching of practical subjects in six selected girls' secondary schools in Uganda. The Harambee program in Kenya was selected to set the stage for the discussion of the two African projects. As a more traditional secondary school self-help project, the Harambee program serves as a useful bridge between the academically-oriented programs discussed in American examples, and the practical skill training orientation of the polytechnics and brigades of Africa.

The limitations of this study of self-help, manual labor institutions are set by the relatively short amount of time available for interviews and data collection in the American schools, and the constraints of the secondary sources used for the African examples. Judgmental evaluations of the educational aspects of the labor programs will not be a part of this study, since the author is not in a position to fairly undertake such a task. Likewise, a detailed economic analysis will not be attempted inasmuch as the time required for access to detail of the institutions' financial affairs was not

available. However, where possible analytic comparison and contrast will be undertaken as a first step towards a clearer delineation of the dimensions which are present in self-help, manual labor schools, with the hope that educators will be able to make more informed decisions when considering these programs.

The background for the study is laid in Chapter II, which focuses on the major figures and institutions which influenced the evolution of the manual labor school. The landmark work by Bennett on the history of manual labor through the American Civil War provides the touchstone for tracing the development of learning and doing concepts. Bennett's account of Von Fellenberg's work which was the practical application of both Pestalozzi's "object lesson" and Froebel's "creative self-activity" sets the tone for the brief but significant eruption of interest in manual labor in America. The release of The First Annual Report of the Society for Promoting Manual Labor in Literary Institutions did much to spur interest in these

11 Bennett, op. cit.
14 Weld, op. cit.
schools. And the programs at Oberlin College, Berea College and Tuskegee reflect both the successes and the failures of these early efforts. The Progressives provide the biggest boost to bringing the concept into a 20th-century context with outstanding examples of experiential learning through manual labor. Two final examples of self-help, community schools which were part of educational extension and development in the South during the 1930s and 1940s complete this select set of examples of labor/learning schools in the past.

The three American case studies will make up the body of Chapter III. Each case will be preceded by an introduction which will call the reader's attention to specific features and issues of the case. The case will be presented in a descriptive manner in an attempt to provide both background and current factual information about the school and its labor program. Each case will conclude with a section dealing specifically with the issues which were apparent in the program, followed by a short summary which, once again, touches on the highlights of the case.

15 Fletcher, op. cit.
16 Peck, op. cit.
17 Washington, op. cit.
19 Dewey and Dewey, op. cit.
20 McCharen, op. cit.
Chapter IV examines selected self-help programs in a non-industrialized setting. The chapter begins with a discussion of the Harambee schools in Kenya as antecedents of the present village polytechnic program. Upon examination of the details of the polytechnic and a discussion of the issues currently facing these programs, a description of the Botswana brigade program follows. These projects will provide the study with some strong contrasts and similarities to both past and present United States and European programs described in previous chapters. Reports of the African programs draw heavily on work by Anderson, Court, Martin, Sheffield and Van Rensburg, supplemented by documents published by the governments of Botswana and Kenya. The chapter concludes with a summary using


four categories, Community Relationships, Institutional Environment, Finance and Employment Objectives, as focal points for discussion of the African projects.

The fifth and final chapter begins with the same four categories, Community Relationships, Institutional Environment, Finance and Employment Objectives, which are used to structure a comparative and contrastive analysis of the African programs and the cases presented in Chapter III. Some tentative conclusions follow this discussion, focussing on issues such as the educational value of manual labor, the relationship of funding and learning to productivity, the evolution of new work roles as programs "mature," facilities, finance and student attitudes and motivation. Five suggestions for further research are followed by a preliminary checklist of questions which should be considered by those interested in creating a self-help, manual labor program. This checklist could become the basis for a handbook about significant manual labor programs, which could include a more elaborate list of questions and issues taken from programs around the world. A conclusion summarizing highlights of the present-day programs and identifying future challenges to the self-help, manual labor model complete the study.

In conclusion, it has been shown in this introductory chapter that there is a clear need for more information about manual labor programs in industrialized and non-industrialized settings. It is possible that schools built and maintained by students and staff working
together could teach useful skills, offer opportunities for new and meaningful responsibilities while reducing the growing costs of education. The concept of combining manual labor and academic study is not a recent innovation in educational history; to understand what potential the manual labor model may have for the future, it is necessary to begin by looking at the past.
CHAPTER II

FROM APPRENTICESHIP TO THE COMMUNITY SCHOOL:

A SELECTIVE LOOK AT THE PHILOSOPHICAL AND HISTORICAL

ANTECEDENTS OF MANUAL LABOR IN ACADEMIC INSTITUTIONS

In the April issue of the Columbian Magazine, an unsigned article details a "plan for establishing schools in a new country where the inhabitants are thinly settled and whose children are to be educated with special reference to a country life." Conceived as a special kind of school to create highly motivated and industrious men and women for the farm, this proposal for "rural academies" contends that manual labor by the students is a means of providing an excellent education while offsetting much of the cost, the major roadblock to expansion of educational programs to the countryside. The schools would be located on large tracts of land, and in general consist of a building for housing the students, a barn, a workshop, and a school. The academic subjects would be an admixture of practical and more traditional topics: bookkeeping, geometry, surveying mechanics would be stressed along with geography, history, literature and religion. The girls would be taught sewing, knitting and other essentials of modern day housewifery in rural areas (including the milking of cows) and might even defer costs further by making and mending the community's clothes. For their part, the boys would ensure that the farm was in every way productive and well-tended and, in the off-season,
they would labor in the workshop to fabricate items of utility for the home, in addition to tools for the farm. Contrary to what might be expected, this plan was not the first of its kind—nor the last. The "new country" for which it was proposed was the United States, and the year was 1787.¹

Combining student labor together with more traditionally academic subjects is as old as the apprentice system. The purpose of this chapter is to highlight some major influences in the evolution of present-day "learning by doing" philosophy and practice. This chapter is not intended to be a complete history of the development of manual and vocational arts and their emerging role in American education. A comprehensive treatment of the development and recognition of practical subjects and their legitimacy in public education is covered elsewhere.² This portion of the study will deal only with a select group of men and institutions which have particular relevance to the labor/learning model: the combined revolutionary impact of Pestalozzi, Froebel and Von Fellenberg; the development of manual labor schools and the Manual Labor Movement in the United States during the first half of the 19th century; the achievements of a few labor and learning, community schools in the first half of the 20th century.


The European Reformers: The Fruits of Revolution

The history of education began in a process of conscious, blatant imitation. Little theoretical discussion was thought to be necessary when the task at hand was transmittal of identical skills between generations, and for centuries men used this most basic of educational methodologies to inculcate his successors with the skills and traditions of his ancestors. Education was supremely relevant: the concepts were specific, the lessons situational, the rewards were obvious and contained an inherent value— they related directly to survival of the species. The age of specialization had yet to appear; society, with its dichotomies of "thinkers" and "do-ers" was unknown.

And so it was, from the dim reaches of man's earliest past to the twilight of pre-Christian times. The early Jews, in spite of their contributions to scholarship, held work with the hands as part of man's duty— part of his obligation to his Faith.

Rabbis who gave a third of the day to study, a third to prayer, and a third to labor are mentioned with special honor. Stories were fondly told of famous teachers carrying their work-stools to their schools, and how Rabbi Phinehas was working as a mason when chosen as a high priest.\(^3\)

The Talmund reinforces the notion: "Great is the dignity of labor; it honors man," and "Beautiful is the intellectual occupation if combined with some practical work."\(^4\) While it would be false to imply that

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\(^3\)Bennett, op. cit., p. 14.

\(^4\)Ibid.
labor of the mind and body were harmoniously united throughout Jewish society, the few references left to us are noticeably different from the opinions of the Greeks, who clearly differentiated between those who performed "banausic" (merely mechanical) tasks and those who were free citizens. The venerable Socrates held that the banausic arts quite reasonably have acquired a bad name, inasmuch as those who practice them are required to spend long hours in gloomy places, performing tasks which enervate body and soul. It is thus, he reasoned, that they begin to fail in their duties to friends and state, due to the time and energy-consuming nature of their work.⁵

Manual labor and academic scholarship survived the Greeks, however, and eventually became united once again in the monastic life of the Middle Ages, setting a pattern of manual work and religious study which is still followed to the present day in many of these institutions. Education for non-clerics, for the middle and lower classes, had to await the rise of the apprenticeship system to provide what might be considered the first combination of civic instruction, moral and religious training, and training in a craft for those outside religious institutions. However, the presence of manual work as a central part of the monastic way of life did little to slow the development of an educational fact of life for several centuries; those who labored over the Trivium and Quadrivium were the "shakers and movers" of society, while those who labored with hoes, anvilis and

⁵Ibid., p. 15.
cobblers' benches were destined for a more mundane existence.

Although there are frequent references to the need for combining pursuits of mind and the hand, from the pens of men such as Martin Luther, Francis Bacon and John Locke, the educational world had to await the arrival of one who was judged so ill-suited to school by his classmates that he was dubbed "Harry Oddity of Foolsborough," to set the tone for major educational change.

The man most responsible for educational innovation in 18th-century Europe was John Henry Pestalozzi (1746-1827), a Swiss who has come to be called the "father of manual training." Having been greatly moved by Rousseau's Emile, he drew heavily upon his own difficulties in school and a compassion for the poor he acquired during his childhood travels with his grandfather who was a minister.

[It was] here that he learned to love Nature and the work of the fields; and here that he first conceived the noble idea to which he was destined to devote his whole life.

Already at that time the peasants of this canton had begun to combine industry with agriculture. As yet there were neither factories nor machinery, it is true, but in every family there was a certain amount of spinning done by hand.6

His first educational experiment involved the rearing of his son, and this experience taught him much in the practicalities (as contrasted with Rousseau's theories) of teaching. As a precursor to a controversy over the "proper" balance between freedom and restraint

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which continues to this day, Pestalozzi wrestled with the contradiction.

I would say to the teacher: Be thoroughly convinced of the immense value of liberty...let your child be as free as possible....Teach your child absolutely nothing by words that you can teach him by the things themselves; let him see for himself, hear, find out, fall, pick himself up, make mistakes; no word, in short, when action is possible.

But when you see the necessity of accustoming him to obedience, prepare yourself with the greatest care for this duty, the most difficult of all in such an education as we are considering.\(^7\)

His resolution of these contradictions in Roussean educational philosophy can be found in his commitment to test his ideas "to see how far he was right, and profit by his wisdom."\(^8\)

His opportunities were not long in coming, and in 1774 he began his first "school" when he brought into his home approximately twenty indigent children. He had them help with his farm work and taught them while they worked together. It was during this time that he developed his methodology of using conversation and example, rather than writing, reading and memorization. And, in a school established for children orphaned by the French invasion of Switzerland, he further endeavored to practice and refine his belief that "doing leads to knowing."

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\(^7\) Bennett, op. cit., pp. 47-48.

\(^8\) Ibid.
I tried to connect study with manual labor, the school with the workshop, and make one thing of them....I saw clearly that, before any fusion could be effected, the two parts must be firmly established separately--study, that is, on the one hand, and labor on the other.

...And I am more than ever convinced that as soon as we have educational establishments combined with workshops, and conducted on a truly psychological basis, a generation will necessarily be formed which, on the one hand, will show us by experience that our present studies do not require one-tenth part of the time or trouble we now give to them.9

The motivating force behind Pestalozzi's interest in uniting manual labor and formal study lay in his desire to help the poor and his belief that the best (and perhaps only) way this could be accomplished was through an education based upon the child's daily life. He felt that the process would provide children with a means of livelihood as well as unlock all of the powers for "good" in their nature.10 His most important, and initially least understood, contribution to educational pedagogy was the "object lesson." The significance of this development and its relationship to the eventual appearance of the manual labor movement in America can best be understood by considering, for a moment, the contribution of the Pestalozzi contemporary, Friedrich Froebel.

Froebel (1782-1852) was the son of a German pastor who, because of his slowness at studies, thought the boy dull and placed him in the girls' division of the village school. At ten his uncle took him

9 Ibid., p. 116.
10 DeGuimps, op. cit., p. 95.
into his home and placed him in the Town School where, it is reported, he evidenced little precociousness or unique goodness. At fifteen he was placed for two years with a forester to become a wood-worker but, owing to the neglect of his master, became more proficient in botany and math. He later perfected his Latin while serving a nine-week sentence in the University prison for debts incurred by he and his brother which he was unable to pay. Although he eventually set out to apprentice himself to an architect, he was soon encouraged by a friend to become a teacher. From 1805 to 1810 he visited Pestalozzi and his school at Yverdun several times, ultimately spending two years with him to teach, work and learn.\footnote{William H. Herford, The Student's Froebel, Heath's Pedagogical Library (Boston: D.C. Heath and Company, undated), pp. XI-XV.}

As Froebel founded his own school which was later to lead to his development of the German Kindergarten, his contribution to learning by doing becomes apparent in his variations on Pestalozzi's "object lesson" as a methodology. Pestalozzi required his students to manipulate objects as means of increasing the child's "receptivity," "power and activity of faculty."\footnote{James L. Hughes, Froebel's Educational Laws for All Teachers, ed. by William T. Harris (New York: D. Appleton and Company, 1897), p. 249.} The use of objects for manipulation and study in the classroom, though commonplace today, was considered revolutionary in late 18th-century Europe. The "sense impression" or "object lesson" method was based on two assumptions:

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\footnote{William H. Herford, The Student's Froebel, Heath's Pedagogical Library (Boston: D.C. Heath and Company, undated), pp. XI-XV.}

To learn, the child must be always active. He learns only by his own impressions, and not from words, which must accompany his ideas to fix them, but are impotent to produce them.

Words apart from the ideas they represent have no value, and inasmuch as it is possible for the child to connect them with ideas to which they do not belong, are even sometimes dangerous.13

Pestalozzi used these exercises of sense-impression and language to teach children to observe and talk; objects were used as stimuli to cause the child to express his impression of the world around him. His own sentences and thoughts became the text of the lesson, the stuff upon which the teacher built ideas, corrected mistakes and embellished the child's experience. With this as a basic method, language, mathematics, graphic exercises and drawing, geography and natural history were made to come alive as useful ways of viewing everyday life, not as abstractions to be memorized.14

Froebel took the methodology a step further. "Creative self-activity" is the phrase which encompasses Froebel's use of objects as more than vehicles of investigation; he encouraged the child to rearrange and create new constructions of his own design, as a mode of self-expression.

Pestalozzi asked, What powers can I define and develop by objects? Froebel said: I shall lead the child to express his own conceptions with real things. Learning, defining, doing, are the three steps in his evolutionary sequence.15

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13 DeGuimps, op. cit., p. 412.
14 Ibid., pp. 413-415.
15 Hughes, op. cit., p. 21.
By expanding the "object lesson" from the observe-and-describe format of Pestalozzi to the creative use of materials which eventually formed the basis of the methodology of manual training, Froebel established the basis for his lifelong motto, "Learn by doing." He made work the handmaid of religion, and believed that if manual work were regarded as a means of self-expression, tasks would be the source of joy and self-fulfillment.

His Spirit, the Spirit of Man, should hover over the shapeless Chaos, and move it; so that Form, and what bears Life in itself, may come forth. This is the high Meaning, the deep Significance, the great Aim, of all Toil and Industry; of all Doig and Creating, as we are justified in calling it. By means of Toil and Industry, we become like unto God...¹⁶

Froebel's methods, which he developed for use with young children, eventually became the basis for manual training in Europe and the United States at the secondary level.

Froebel saw the need of manual training to broaden the school programme, to give the race greater skill, and to lead men to love work; but he advocated its introduction into schools for much stronger reasons (which) were educational, not economic or utilitarian.¹⁷

And, he emphasized the use of manual training as a process to aid the development of intellectual capacities.

Plastic material representation in life and through doing, united with thought and speech, is by far more developing and cultivating than the merely verbal representation of ideas. The life of the boy has, indeed, no purpose but

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¹⁶ Herford, op. cit., p. 19.

¹⁷ Hughes, op. cit., p. 253.
that of the outer representation of his self; his life is,
in truth, but an external representation of his inner being,
of his power, particularly in and through material.\textsuperscript{18}

Finally, the essence of his rationale is found in this paragraph,
taken from "The Student's Froebel." The passage is quoted in its
entirety, for it represents the best synthesis of Froebel's interest
in manual labor--one which was to have later influence on trade and
industrial education as it came into its own.

For Boys towards the Close of Boyhood, it is most important
to spend steadily at least an Hour or two daily in some
material Occupation; in Occupation which produces something
useful. Weighty good Results for their future Life would
follow: for a most hurtful Effect of our present School-
arrangements, especially of the so-called classical Schools,
is, that the Boy when entering them leaves behind all Home-
occupations, all useful Work. Do not reply: "In this
Period of elder Boyhood, the Boy must apply his whole Force
to Word-learning, to intellectual Culture, if he is to reach
a certain Proficiency in Knowledge." Not so: genuine
Experience teaches the very Reverse of this; intellectual
Occupation, alternating with bodily Work, with Employment
for useful Production, strengthens not the Body alone, but
yet more the Intellect, in various directions of mental
Activity. After such a refreshing Laborbath--I know no
better Name--the Mind will set about its abstract Work with
new Force and Liveliness.\textsuperscript{19}

In summary, Froebel, like Pestalozzi before him, saw the use of
objects in the classroom as a means of reforming an educational
system which had been constructed on a foundation of abstract factual
recall. Pestalozzi began the assault with his attempts to recreate
the educational program specified by Rousseau for his \textit{Emile}, and the
modifications and refinements he found to be necessary to make the

\textsuperscript{18} Ibid., p. 254.

\textsuperscript{19} Herford, \textit{op. cit.}, p. 99.
practical application of the philosophy possible. Froebel added strength to a major achievement of Pestalozzi's work, the "object lesson," by encouraging the child to make creative use of the objects he brought into the classroom. And, as we have seen, he saw a strong association between manipulation and creative use of objects by children and manual labor as part of man's reach for closeness with the Deity while on earth. Pestalozzi provided the inspiration and initial examples of the possibilities of educational change; Froebel refined some of these ideas and provided the philosophical underpinning for a child-centered curriculum. It fell to another reformer, a contemporary of them both, to implement many of these ideas in such a way that the institutions he founded were duplicated in many parts of the Western world.

Philip Emanuel Von Fellenberg (1771-1884) made manual labor an integral part of the schools he created. Because it was the chief characteristic of his institutions, his methodologies were eventually widely copied and gave considerable momentum to the development of the agricultural school, the manual-labor school and the industrial reform school.

Von Fellenberg's institutions were a direct result of his beliefs about the nature of society. In keeping with conventional wisdom of the times, he believed that Divine Wisdom had divided society into three classes: those born to rule, the nobel and the wealthy; the middling; and those born to obey, the poor. He saw education as the tool to develop the two extremes, the highest and lowest classes, so
that the upper would have a sense of responsibility and sympathy for the lower, and the lower would be prepared for "the station which Providence had placed them."20

His first academy was for the sons of the well-to-do and, as such, was innovative in its inclusion of agriculture and manual labor in the curriculum with the usual subjects of a traditional classical education. Manual labor was classified under the general heading of physical education, and this area of endeavor was given equal emphasis with intellectual and moral education. Two small buildings were provided for a cabinet-maker's shop, a bookbindery, and several rooms for instrumental music, fencing and dancing. Von Fellenberg sought to keep the students busy at all times and thus avoid those...

...vicious habits which so commonly result from the vacant time of colleges and universities. By turning [the students'] attention to agriculture and the mechanic arts; by inspiring them with a love of labour, or at least of a useful application of their strength and muscular activities; by exercising their ingenuity in the use of tools and instruments; by familiarizing them to an attentive observance of nature in her different kingdoms, and in the revolution of seasons, — a foundation is laid for those more expanded feelings and generous sympathies, which bind the upper to the lower classes of the community, and eventually tend to exalt the condition of humanity.21

This summary of Von Fellenberg's thesis was that which was eventually adopted by those in the United States who took an interest in combining manual labor with the pursuit of higher education; the Manual Labor

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20 Bennett, _op. cit._, p. 129.

21 Bennett, _op. cit._, p. 134.
Movement of the early 19th century which spawned Berea College and Oberlin College.

His greatest contribution to the development of the labor/learning movement, however, may have come with the emergence of the farm and trade school. Tracing its beginnings to the "adoption" of three indigent children from "the highways and the hedges," it was begun by a parent of one of Von Fellenberg's apprentice assistants by the name of Wehrli, who began living in simple surroundings with the boys and, in the manner of Pestalozzi, used the natural environment of the academy's farm to provide the vehicle for motivation and instruction. Inasmuch as the schoolmaster shared his life from dawn to dusk with the boys, he was in a position to make as many connections as possible between school studies and the manual labor they performed. The boys' work on the farm was accomplished by Wehrli's running commentary and questions which, in effect, were lessons in geography, history, natural science, geometry, religion and morals.

The reports of the organization and pedagogy of this school read like current-day examples of what some might consider an "ideal" school. Wehrli was the acknowledged hub around which all activities turned, and the school was clearly an extension of his personality. And, due to his leadership, the results were reported to be nothing short of remarkable.

Vagrants and beggars became industrious workers; the vicious and lawless became manly and obedient. Through labor and study and contact with a strong, sympathetic, high-minded personality, these boys became valuable citizens, and many of them secured positions of trust and large responsibility.22

22Bennett, op. cit., p. 137.
Not only did Wehrli run the school in what appears to be a forerunner of the finest progressive tradition, Von Fellenberg seems to have anticipated the present call for greater use of skilled people from the community. Next to agriculture, which he believed to be the finest vehicle for promoting happiness in men, he held the mechanical arts and crafts in high esteem. He employed a blacksmith, a wheelwright, a carpenter, a cabinetmaker and a turner, a brass worker, shoemaker, harnessmaker, tailor, lithographer and bookbinder. He encouraged his students to learn one of these trades, as soon as he was old enough to become an apprentice. And, in what was to become an element of the Manual Labor Movement, Von Fellenberg established a system to enable students to pay for their education; students who could not afford the cost of the school were required to stay until they were twenty-one years old. Their apprenticeships contributed to the production of farm equipment, the sale of which generated incomes which helped to pay for the cost of the non-tuition students' education.

Whether the income was sufficient to even partially defer the cost of those students not paying tuition is not clear. What is clear is the great reputation Von Fellenberg enjoyed during his lifetime which was based, in large part, on the success he achieved in transforming seemingly ineducable children of the poor into skilled and productive citizens. He expanded the concept of useful work performed by the students into a methodology which became the cornerstone of labor and learning institutions teaching agriculture, industrial
skills and "correction" of the young. He was the acknowledged educational reformer of his time who showed his visitors how to organize and apply the ideas of Pestalozzi on a large scale. Von Fellenberg, Pestalozzi and Froebel each contributed a uniqueness to educational thought and practice of 19th century Europe which, for the first time, challenged the conventional wisdom as to what was important to learn, and how students might best go about the task of learning it.

It is not the purpose of this section to trace in detail the scores of educational milestones which have a bearing on the evolution of agricultural and industrial education in Europe and the United States, for this has already been adequately documented by others in the field. However, one event already mentioned which deserves examination because of its relevance to labor and education programs is the so-called Manual Labor Movement in the United States.

The Manual Labor "Movement" in the United States

The interest in combining useful labor and academic work in schools and colleges was short-lived, but not without impact in its contribution to a growing sentiment for mass education. The interest in founding labor/learning institutions peaked during the years 1830 to 1845, and the entire course of the "movement" cannot be traced to much more than the twenty-five years between 1825 and 1850. The
impact on United States higher education was substantial, however, with the establishment of several seminaries and institutes, a few of which eventually were to become well-known colleges of liberal arts.

The origins of the sudden interest in manual labor institutions in the United States are not entirely clear. Early attempts to operate a seminary in Andover, Massachusetts, through heavy contributions of student labor, were begun in 1826. The institution erected a large workshop where students voluntarily spent an hour and a half each day producing "boxes of various kinds, such as type, soap, candle, hardware boxes, etc., also cabinet work, as bedsteads, tables, chests, etc." Those working formed an association which began to turn sufficient profit to enable two full-time staff to be employed, the purchase of additional tools and materials to be made, still leaving some money to be divided among the students who worked. 23

Evidently, 1826 was a good year for initiating programs combining work and study, for in another part of the East, a Reverend George W. Gale began taking young men into his home for training in theology in return for working a certain number of hours each day on his farm. In 1827, Gale, who considered himself the originator of the system of manual labor with study, proposed to the annual meeting of the Oneida Presbytery that an institution, Oneida Academy, be established. The main objective was to prepare students for the ministry, and they were to "support themselves and the school and benefit their health by

23 Bennett, op. cit., p. 183.
three to four hours of mechanical or agricultural work daily." After a slow start, the Academy was incorporated by the Board of Regents in 1829 as the Oneida Institute of Science and Industry.\textsuperscript{24}

As will be the case in many other labor/learning institutions, the students and faculty found themselves locked into a very heavy schedule. "By common consent" rising time was set at four a.m. followed by nearly an hour's work in the fields. The first class of the day was at five--an hour before breakfast! The adage about idle hands being the Devil's tool must have been coined at Oneida; it is reported that at each meal one student was appointed to read aloud while the others ate. "We are now reading the life of Thomas Spencer," reported one student. "Frequently we pass resolutions and transact important business at the table, while we are all eating as fast as we can."\textsuperscript{25} Those condemned to endure present-day committee meetings, many of which seem to become ends in themselves, might find some merit in this approach!

Several other institutions were begun during the years 1825 to 1830; it is reported that a manual labor institution of the Von Fellenberg type was operating as early as 1825. Known as the Maine Wesleyan Seminary, the institution was begun to assist three classes of men:


\textsuperscript{25}Ibid.
a) the "worthy poor" who wanted an education, b) the idle well-to-do who needed proper motives to industry to keep them from dissipation, and c) the especially talented students who "for want of some regular and systematic exercise were doomed to find an early grave."^{26}

By 1830, the roster of schools which had adopted the manual labor system, or were planning to implement it, was sizable: the Manual Labor Academy of Pennsylvania was established at Germantown in 1828; theological seminaries at Auburn, New York; Maryville, Tennessee; and Danville, Kentucky implemented manual labor programs, each modified to suit their own needs; the Phillips Academy at Andover, Massachusetts and the Woodbridge School for boys in South Hadley, Massachusetts both erected workshops and planted gardens to enable their students to pay for their board through labor; Bowdoin College in Maine and Middlebury College in Vermont were reported to be planning workshops for students' contributions to the cost of their education.\textsuperscript{27}

In 1831, a "Society for Promoting Manual Labor in Literary Institutions" was formed with Theodore D. Weld of the Oneida Institute as its general agent. Over the course of the following year he traveled to scores of literary institutions in the East and mid-West, collecting information about schools making use of some form of manual labor, delivering lectures and in general, doing all he could to attract the attention of educators and the public at

\textsuperscript{26} Bennett, \textit{op. cit.}, p. 185.

\textsuperscript{27} Ibid., p. 188.
large, to the promise of uniting academic study with useful labor. In the Society's first and only annual report published in 1833, Weld produces elaborate and lengthy testimony collected during his travels around the country which supports his case for more physical exercise and manual labor in educational institutions. Beginning with statements from a score of college presidents, educators, chaplins and other leaders of the day, Weld builds and reinforces the argument that the body and mind should be educated together, and that the "present system of education makes man a monster." Rousseau's statement that "a feeble body enfeebles the mind" seems to be the most succinct summation of the lengthy list of quotations which he assembled to pave the way for change.28

The basis for the Manual Labor Movement was embodied in thirteen points set out by Weld to illustrate the system's advantages over other programs of education being practiced at that time. The points can be summarized as follows:

1. The manual labor system furnishes exercise natural to man. Reflecting the wisdom of the day, Weld placed priority in agricultural and mechanical pursuits; "God designs that the human race generally should engage in these employments."

2. The system furnishes exercise adapted to interest the mind. It provides the students with opportunities for variety, as well as obtain skills and perform useful work.

3. The moral effect would be "peculiarly happy" (further testimony to the positive, healthful effects which manual labor has on mind and body).

4. The manual labor system furnishes the student with important practical acquisitions (more discussion of the skills and knowledge of agriculture the students will acquire).

5. The system would promote habits of industry. The constant occupation of students will eventually create good work habits, a quality impossible to impart to students without immersing them in a continuous program of manual labor.

6. The system would promote independence of character. The work program would permit students to make decisions, use their own resources and practice self-reliance.

7. The system would promote originality. In handling a variety of situations the student would acquire an independence of a kind which would be uniquely his own.

8. It (manual labor) is adapted to render permanent all the manlier features of character ("a system of seclusion, idleness weakens the strong points of character, renders it sickly and effeminate").

9. The system would afford facilities to the student in acquiring a knowledge of human nature. Students would have the opportunity to learn about the "middling and lower classes."

10. The system would greatly diminish the expense of education. Several examples are cited: students at the Maine Wesleyan Seminary were able to earn their board through manual labor; students at the Oneida Institute assumed up to one-third of their educational expenses; with Cumberland College and the Pennsylvania Manual Labor Institution, they reported that their students have earned up to one-half of their costs and, finally, a manual labor school in Greenfield, Massachusetts which reported that its students paid for nearly all of their costs through work. Weld noted that these institutions had the benefit of being in operation for several years, and presumably attain their high level of efficiency from hard-won experience.
11. The system of manual labor would increase the wealth of the country. It would benefit farming and increase the quantity and quality of production. Weld stated that at the time of his report there were 30,000 students in school who could work three hours each day, equalling 5,000 working men at ten hours per day. The potential manpower resources are obvious.

12. It would tend to do away with those absurd distinctions in society which make the occupation of an individual the standard of his worth. He expressed his hope that the system would help render manual labor more honorable and assist in bringing the classes together.

13. It would have a tendency to render permanent the country's republican institutions. Weld felt that the principles of republicanism are "equality and reciprocity; its basis industry, economy, practical habits, general intelligence and morality."29

Although the Report presents an elaborate case for the adoption of labor/learning and criticizes the shortcomings of an academic education, Weld does acknowledge some of the problems which retarded the spread of the idea. He admits that such problems "will embarrass its operations, greatly impair its efficiency, and consign it to ultimate defeat, unless a vigilant forecast interpose a preventative."30 Weld sets forth ten major obstacles to the success of the Manual Labor Movement, and in so doing, reveals more about the everyday

29 Weld, op. cit., pp. 56-64.

30 Weld, op. cit., p. 93.
problems of implementing programs than the pages of testimony which make up more than half of the Report. He notes that a major problem is:

1. **Misconception of the main design of the system.**
   Some suppose its main object is to diminish the expense of education. Consequently, if the avails of three hours labor a day do not go far towards defraying the expense of the student, the system is pronounced as "good for nothing." ...The diminishing of expense is an object, and not an inconsiderable one; but the grand design of the system, the object which overshadows every other, is to make the student more of a man.

Despite the many references to the possible savings of educational cost to students and the institutions, Weld left no doubt that he placed educational priorities over fiscal priorities. He continued with other problems generated by improper implementation of manual labor programs:

2. **Precipitancy.** "What is done in a hurry is ill done." ...Much deliberation, careful inquiry, intelligent anticipation of probable difficulties, and a wise provision of means to meet them, should be the pioneers of every manual labor institution.

3. **Imperfect knowledge of the details of the system.**

4. **Misjudgement in the kind of labor.** Some manual labor schools have furnished only those kinds of mechanical labor which require long practice for the acquisition of adequate skill. ...It should be remembered, that it is not the aim of the manual labor system to make students finished mechanics and scientific agriculturalists. Three hours labor are required of the student, because he needs that amount for exercise....Agriculture and gardening would be immediately profitable. The same may be said of such mechanical employments as require the exercise of little skill, and can be performed without much previous practice....
In the last of difficulties enumerated above, Weld obviously favors those jobs which lend themselves to vigorous physical exercise over those which are difficult to learn and less active, even though the tasks might involve a higher skill level. The Report continues:

5. **Unfavorable location.** Inconveniences of access to a good market for their (the students') productions... the location might be such that the expense of living will necessarily be great...In the selection of a site for a manual labor school, prudent men will carefully weigh all such considerations.

6. **Inefficiency on the part of those who manage such institutions...** to be well versed in business...to possess a practical tact...to be prompt, active, industrious, preserving.

7. **A want of active cooperation on the part of the teachers.** ...So long as the students in manual labor schools are unsustained by the example of their teachers, so long such schools will lack an important element of efficiency.

8. **Leaving labor to be regulated by the caprice of the student, rather than making it a requisition...** (the schools) by refusing to make exercise the subject of specific requisition, and thus incorporate it as a part of the system of education, they proclaim an indifference to its importance, and practically contradict their own assertions of its paramount necessity.

9. **Promiscuous admission of students....** Some manual labor schools have been filled up mainly with half-grown boys, principally from cities; never accustomed to work; ignorant of all the modes of labor, and esteeming it drudgery; lacking utterly that hardihood and those industrious habits which country boys usually possess....Let not parents expect that the labor of such lads will materially curtail their expenses, until they shall have acquired business habits and attained more maturity.
10. **Inadequate means for unembarrassed operation**....

Even now some of the most important manual labor institutions in the country, which have accomplished vastly more for the system than all other causes combined, and upon whose future results the efficiency of the general system greatly depends, are pining under dispensations of charity so disproportionate to their necessities as to be little less than actual mockery. 31

Several of these issues will be discussed in more detail in the final chapter, during the analysis of those schools selected for the case studies. It is worth noting at this juncture, however, that the last point made by Weld may have been the most critical, since lack of adequate funds probably was the most important factor in collapse of the manual labor movement. He noted that many contributions were coming in the form of investments (upon which the investors expected a return), rather than donations. He sensed that, while manual labor might be employed to defer institutional costs, it could not effectively be used as a venture for the profit of investors. In addition, many years later in 1865, Weld in a letter to a friend modified some of his opinions about the amount of profit a school could expect from the manual labor system. He observed that in order to be profitable, labor must be more continuous than is practical for study. He also noted that the best experience for student laborers would be one of considerable diversity, in at least a half dozen different tasks, rotated frequently. While this might have made good educational practice, it was recognized by Weld as economically impractical

to implement. Although Weld's enthusiasm was on the wane, and the movement he helped foster no longer captivated the educators of the country, two of the most prominent and enduring institutions begun on a manual labor system had yet to be organized. These were Oberlin, which was not begun until 1833, and Berea, which was not founded until 1855.

Oberlin and Berea: Two Products of the Movement

The story of manual labor at Oberlin begins with the first official presentation of the school's founder, John Jay Shipherd, who declared in his plan for the Oberlin Collegiate Institute that "all will be required to labor probably four hours daily." In a later publication, Shipherd reaffirmed this goal in Oberlin's philosophy and grew more emphatic as problems developed in the administration of the program. If the departments of "Biblical Instruction and Physiology, including Manual Labor...wane," he stated in 1844 when the system was under severe strain, "the life current will flow out, and the heart of Oberlin die."33

Students were divided into small groups and assigned to a "monitor" who kept a weekly record of the number of hours worked by each student. All manner of maintenance and construction tasks were

32 Bennett, *op. cit.*, p. 192.

33 Fletcher, *op. cit.*, p. 634.
performed. Records indicate a variety of tasks, including burning stumps, planing floor boards for new buildings, building bedsteads, cutting cordwood, in addition to the usual jobs which were part of the typical 19th-century farm. Some mechanical work was done, after the purchase of a twenty-five horsepower steam engine which was used to drive a grist mill, shingle and lathe saw and a turning lathe. The amount of mechanical labor performed by the students at Oberlin did not reach the proportions of time spent in agricultural and general maintenance tasks. The school's shop never seems to have been organized into a major occupation for students, although a few pupils worked for individual mechanics in the area. Wages varied, according to the task. Mechanical labor dropped from an initial seven cents an hour to six and one-quarter cents to five cents, as adjustments were made for productivity. The norm was set by farm jobs, with eight cents paid for logging, seven cents for chopping, six cents for hoeing potatoes, and ten cents for harvesting.34

Young ladies were, of course, expected to contribute their share of labor to the welfare of the community, and they did so in the manner of the times. While the men raised buildings, worked in the shop and on the farm, the girls prepared meals, washed dishes and linen, made shirts and mended socks. One of the major reasons, it seems, that co-education was so strongly supported at Oberlin, was

34 Fletcher, op. cit., p. 636.
the mutual interdependence of these roles which made the labor system self-sustaining and economically viable. Opinion about these tasks seems to have varied. One young lady wrote, on behalf of all of the ladies at Oberlin, to the school's representative in England:

...Our manual labor system...we all consent in saying is the very thing we need. After having our minds absorbed in some abstract subject until we become weary with intense thought, we repair to some household duty and the mind and body become relaxed, we return to the page we left and grasp the thoughts with avidity, and instead of the pale face which too often belongs to the student we see a continual freshness and glow. There are other benefits resulting from this system. While the majority of well-educated ladies are ignorant of domestic affairs, here the two are blended, here domestic economy which it is true should be inculcated by the mother is carried on to still greater perfection, here knowledge of domestic affairs, high intellectual culture and even refinement of manners are considered as consistent with each other.35

Presumably, the young lady may be forgiven the hyperbole since her communiqué was addressed to a College official. The same situation was viewed differently by a critic of the program:

Nearly all the labor since this Institution was first established, has been chopping, logging and burning brush; and this too, a great portion of the year, ankle deep in mud and water! How beneficial such labor must be to a student, and how pleasurable the transition from long-heaps and burning brush to books, is better imagined than described.36

In 1836 the Catalogue proclaimed that nearly all the young women of Oberlin were able to finance the cost of their education through their own labor, but by 1840 and later, in 1855, the tone was less


36Fletcher, op. cit., p. 637.
encouraging. It was stated that many had paid their board through the system, but in general they were those in responsible positions in the domestic department. It was also agreed that the optimum time allotted to work was three hours, not four, a reduction in earnings which no doubt affected the effectiveness of the system. The college farm, the mainstay of the labor program, developed management problems as early as 1837. The beginning of the failure of the farm can be marked with an ill-advised attempt to cultivate mulberry trees for silkworms, which was thought by many of the day to be a most profitable and appropriate industry for manual labor institutions. The soil was not conducive to growing these trees and thousands of dollars were lost in the attempt.

The year 1836 marks the beginning of the decline of manual labor at Oberlin until the last of the farm lands were disposed of in 1866. The problems can be traced to several factors: (1) the institution could not enforce its regulations concerning hourly minimums worked by students and, in fact, it was not an uncommon practice by 1840 to excuse students from labor "for good and sufficient reasons"; 37 (2) the decline of the farm and the impact this had on related tasks, meant the institution could not guarantee the student a sufficient amount of work to defer his expenses at the school; (3) faculty support for manual labor began to ebb, as evidenced by strong reminders from the trustees to the faculty to deliver frequent lectures and

37 Ibid., p. 657.
offer encouragement to the students to perform at least the three hours daily minimum labor; (4) the failure of the school farm left a loose, "manorial" system in which interested students were able to hold land and sell the produce to the Institute at the going rate, but this was, at best, a rearguard action—an attempt by a system in decline to provide some means of earning money to those still interested and in financial need.

And so a system which initially held much promise and was a primary source of financial support for students was eventually abandoned. Although the students initially were able to defer much of the cost of the school through manual labor, this dwindled considerably until other sources of support (e.g., teaching in neighboring villages) were necessary. And while as late as 1851 the school was publicly declaring that four-fifths of all students who had graduated in the previous twelve-year period supported themselves primarily through labor, the program was, by then, little more than a shadow of a dream.38

Although it would be difficult to ascertain, it is possible that many of the troubles of implementing the manual labor program at Oberlin were typical of those encountered at other institutions during this time. It is clear that some of the difficulties listed in Fletcher's history of the College are the same as some of the "obstacles to success" enumerated by Weld in his Report. Specifically, 38

38Fletcher, op. cit., p. 664.
the mismanagement of the silkworm scheme and the attempts by investors to realize a profit from the manual labor program, the uneven enforcement of labor among the students, and the lack of support for the program throughout the faculty were problems discussed by Weld which figured prominently in the gradual diminishment of the program at Oberlin. And, of course, the inability of the school to find sufficient work for its students once the farm had ceased to be important in its operation, is a crucial problem not even touched upon by Weld. This last difficulty, continues to surface on occasion throughout the history of many labor/learning programs; as schools become established and the challenges of the early days are conquered, finding useful tasks which have an obvious link to the survival of the institution becomes increasingly difficult. Just how current-day programs attempt to deal with this problem will be discussed later as part of the case studies.

The passing of the manual labor program at Oberlin, however, did not signal the total extinction of the idea from higher education. As the system grew less important at the Ohio school, another school in Kentucky adopted the plan--one which has endured the test of a century of implementation and continues to thrive to this day.

John G. Fee, the founder of the Berea school in 1855, and his colleague, J. A. R. Rogers both had contact with the Oberlin manual labor system. The former graduated from Lane Seminary, where Theodore Weld had instituted the program, while the latter graduated from Oberlin, although at a time when manual labor was in decline.
When the one-room school was eventually incorporated as a College in 1866, the institution's first president, E. Henry Fairchild, was also a graduate of Oberlin, and as a member of its first class, knew the manual labor system at its zenith. Berea, it was declared, was not a manual labor institution in the manner of previous experiments, but the school would endeavor to provide some opportunities for self-support for its students. In 1881 President Fairchild commented on student labor, comments which reflected some of the biggest differences between Berea and other labor/learning schools of the time:

Our students are engaged in making roads at Berea. They have never tried to run a farm. I have seen student efforts to run a farm, but they have never amounted to much. I do not think it can be made successful. I would not undertake to run a garden with students. I can make a good garden, but I have never seen a student who could do it.39

It was Berea which expanded the concept of manual labor into the area of student-operated industries, beginning with a printshop, which published the College paper and eventually extending its work to the College catalogue, items of publicity, and work for outsiders.

Much of Berea's uniqueness will be covered in a later chapter in which the present-day program of the college and some of the problems and modifications which have taken place over the years will be discussed. However, at this point, it is useful to note the major contrasts which came to distinguish Berea from other manual labor schools

and which may explain the institution's continuance of a labor program from its founding to the present. The first, and perhaps most important, was capable and inspired leadership. Though the early founders and the first president of the College took the necessary initial steps to establish a viable labor program, the real thrust was derived from the school's second president, William G. Frost.

It was Frost, yet another graduate of Oberlin, who saw the need for a school farm, but also saw the need for competent management. After looking for five years, he found the combination of scientific agriculturalist and practical farmer, who taught all aspects of farming, forestry, fruit raising and road building. To his credit, the farm manager provided employment for over one hundred students.  

A second contribution of Frost was the initiation of the Fireside Industry Program. Early in his administration the president and his wife became interested in the crafts of the region, particularly in the spinning, weaving and quilting done by women in their homes. He organized these women so that they could earn money to provide their children with an education and simultaneously set the College up to act as middleman to create markets for the products. He organized a "Homespun Fair" at Commencement, and eventually provided a shop for the products on the campus, which included not only linen and woven products but also splint-bottomed chairs, baskets and ax

handles. Not long after this project was organized, local women won medals at the Paris, Pan-American and Louisiana Expositions for their handiwork, which ultimately led to the employment of a woman skilled in weaving, as well as experience in business, so that students could also be taught these crafts.

A final major contribution of Frost was his recognition of the need for a supervisor of all labor activities, and under his leadership, the post of Dean of Labor was first created. This led to increased coordination of labor activities and, when the system was under great stress a few years later, it enabled the manual labor program to survive and grow. The second Dean of Labor was able to create better lines of communication amongst the labor superintendents themselves, as well as re-enlist the support of the faculty for the program. The post was utilized to increase the number of jobs and match production to the demand of markets in the world outside. A direct result of the creation of the Dean of Labor position was the elevation of the status of the manual labor program, culminating in Labor awards which were given for outstanding service to the institution, and the creation of a Labor Day—a festival with contests, prizes and exhibits, not unlike those conducted hundreds of years ago by medieval craft guilds. The three contributions of President Frost (the hiring of an experienced and competent farm manager, the establishment of Fireside Industries which involved local people and

41 Ibid., p. 117.
capitalized on skills and crafts native to the area, and the creation of the post of Dean of Labor) go directly to two of the problems identified by Theodore Weld as blocking the success of manual labor schools. By raising the status of the labor program through the creation of a Dean of Labor post, Frost provided the necessary leadership Weld considered important to operate the program. And, by hiring competent supervisors, Frost ensured that the investment of money and manpower was well-protected. Finally, through shrewd anticipation of potential markets, Frost created the student industries program—an act which reflected the kind of business acumen stressed by Weld.

The story of Berea and the challenges the school faces in the seventies will be discussed later in the chapter dealing with cases. The College remains the only institution still operating a vigorous manual labor program, which can trace its roots directly to the Manual Labor Movement. In sharp contrast to the many experiments begun in the tradition of Pestalozzi and Von Fellenberg in the 1820's and 1830's, Berea seems to have overcome the difficulties of combining useful work and academic study. As such, the school is worthy of a more detailed examination.

Before turning to more recent efforts at combining manual labor and academic education, it is necessary to briefly mention two more institutions which survive to this day, and were begun in the latter half of the 19th century by men who had no alternative but to rely upon manual labor to create schools for their people. The first
school was located in a little town in Alabama by the name of Tuskegee. The founder, a former slave, was Booker T. Washington.

From the very beginning, at Tuskegee, I was determined to have the students do not only the agricultural and domestic work, but to have them erect their own buildings. My plan was to have them, while performing this service, taught the latest and best methods of labour, so that the school would not only get the benefit of their efforts, but the students themselves would be taught to see not only utility in labor, but beauty and dignity, would be taught, in fact, how to lift labour up from mere drudgery and toil, and would learn to love work for its own sake.42

Washington viewed the teaching of self-help and self-reliance as part of his mission in the creation of Tuskegee, and despite some initial reluctance on the part of students, he was able to erect an impressive number of buildings for the school. At the time of writing "Up From Slavery" forty buildings had been constructed over the nineteen-year history of the school. His motives for the development of a manual labor program stretched beyond his immediate needs for facilities: whatever sacrifices had to be made in quality because of the inexperience of the students were more that offset by the training of graduates who would return to their home areas with skills enabling them to improve their own lives. The students' investment in the construction of buildings also provided them with a sense of identification with the institution so that when, on occasion, a student was tempted to use a knife or pencil on property belonging to

the school a typical response was, "Don't do that. That is our building. I helped put it up." 43

Many black institutions found themselves in much the same situation as Tuskegee, and were forced to organize student, faculty and parent work programs to ensure that reasonable facilities for classes were constructed. The source for much of the leadership in helping these schools organize seems to have been General Samuel Chapman Armstrong, the founder of Hampton Institute, one of the first black schools to include manual labor in the program. Washington's first contact with a labor program can be traced to the time he spent at Hampton with General Armstrong and, in "Up From Slavery," he makes several references to Hampton's program and the assistance and inspiration he drew from the General. 44 While few of these schools continue today as manual labor institutions, there can be no doubt that in part they owe their survival during their formative years to the system.

Hampton Institute represents a type of institution, the industrial school, which began to develop about the time the Manual Labor Movement was beginning to decline. As they evolved, both the industrial schools and reform schools made heavy use of student labor, primarily for educational reasons. The rationale in industrial/vocational schools is obvious; training for practical work was the

44Ibid., p. 61.
raison d'être for their existence. Skill training was also a reason for the inclusion of manual labor in reform schools, with the additional purpose of teaching positive work values to delinquent youth to better enable them to become productive members of society. No doubt, some of these institutions were also able to reduce a portion of their operating costs through the use of student labor, although documentation of exact savings is difficult to obtain. Because the system of labor and the projects undertaken by the students in these schools does not differ substantially from those programs already described on the preceding pages, or that which will be discussed in the final section of this chapter, no attempt will be made to trace their development as part of this study.  

The Twentieth Century: Four Examples from the Recent Past

As the Manual Labor Movement was playing its role in the historical pageant of American education, another important trend began its process of development—one which would ultimately have a much greater impact on the objectives and methodology practiced in the schools. This trend was begun in 1852 by the Commonwealth of Massachusetts with the passage of the first state-wide compulsory-attendance law. Although the last state to pass such a law did not do so until nearly seventy-five years later (Mississippi, 1918), the thrust of the bulk

45 For a complete discussion of the development of industrial schools and reform schools, see Bennett, op. cit., Chapter VII.
of states which followed the Massachusetts example around the turn of
the century was enough to force new priorities into school systems. Compulsory attendance marked a significant change in American
education. The focus on education began to shift from relatively
academic subjects to more practical ones, under pressure from those
who were now part of the mass educational effort.

...a cacophony of voices was demanding educational reforms
of every sort and variety. Businessmen and labor unions
were insisting that the school assume the classical func-
tions of apprenticeship. Settlement workers and municipal
reformers were vigorously urging instruction in hygiene,
domestic science, manual arts, and child care. Patriots
of every stripe were calling for Americanization programs.
And agrarian publicists were pressing for a new sort of
training for country life that would give youngsters a
sense of the joys and possibilities of farming—and
incidentally, keep them from moving to the city.47

The emergence of John Dewey and his philosophy could not have
been better suited for the needs of the time. The functions men-
tioned above which had been performed by the family and society now
were being pressed upon the school. Dewey recognized this and, in
his The School and Society, he described the alienation between the
growing child and his environment. As Cremin points out:

...Dewey laid the blame for the ferment in education
squarely at the feet of industrialism. Society, he con-
tended in Platonic terms, educates. Behind the older
agrarian society lay the time-honored education of the
agrarian household and neighborhood, where every youngster
shared in meaningful work and where the entire industrial

46Cremin, op. cit., p. 127.
process stood revealed to any observant child. "We cannot overlook the factors of discipline and of character-building involved in this...," Dewey contended; "we cannot overlook the importance for educational purposes of the close and intimate acquaintance got with nature at first hand, with real things and materials, with the actual processes of their manipulation, and the knowledge of their social necessities and uses."^8

John Dewey accurately perceived that the schools, as they were designed at that time, with curricula evolved from a classical tradition, were ill-equipped to respond to these new needs and pressures placed upon them by the advent of compulsory-attendance laws and the shift to mass education. The best examples of the kinds of schools he thought would be most appropriate to meet these new challenges are found in his book *Schools of Tomorrow*, which he co-authored with his daughter, Evelyn, in 1915. While most of his philosophy had been set forth in other writings, *Schools of Tomorrow* represents an attempt to detail specifics about several schools which reflect his ideas on education.

Many of the examples in this work focus on the experientially-oriented curricula of primary schools, but there are two schools of particular relevance to this study. At Interlaken, Indiana, the Deweys' found a boys' manual labor school dedicated to the learning-by-doing philosophy. The idea was a direct result of placing the pupils in an environment which was full of interesting things which needed doing. As part of their schoolwork, the boys drew plans, laid

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^8Cremin, *op. cit.*, p. 117.
foundations and did the carpentry, wiring and painting for many of their own school buildings. The school was located on a six-hundred acre farm with all of the chores performed by the students. Contact with the community was reinforced through the school's purchase of the village newspaper which was, at the time of the Deweys' visit, a four-page weekly containing local and school news. The students did most of the news gathering, writing, editing and printing under the supervision of a teacher. The authors stress that the work was not done:

...because they want to know certain processes that will help them earning a living after they are through school, but because to use tools, to move from one kind of work to another, to meet different kinds of problems, to exercise outdoors, and to learn to supply one's daily needs are educating influences, which develop skill, initiative, independence, and bodily strength—in a word, character and knowledge.49

The second labor/learning school described by the authors is unusual because of its urban location, and the list of accomplishments of this institution read like a textbook example of the ideal learning-by-doing school. The school got its start as Public School No. 26 in Indianapolis, Indiana, which was, at the time of the authors' visit, located in the heart of the black ghetto. The supervising principal had been faced with the difficulties of trying to run a school in an overcrowded and poor community, with soaring vandalism and truancy rates.50


50 Ibid., p. 153.
The turning point for the school came when the city school board purchased land adjacent to the school building which had three run-down tenements on it, as well as space for a playground. The authorities originally intended to tear down the structures but were finally persuaded to let them stand providing they would cost the city no additional money, once the grounds were cleaned up. The boys of the school were marshalled to convert one of the tenements into a manual training building, fitted out with woodworking and sewing rooms, and a room for a class in shoemaking. The woodworking class began its lessons in carpentry by making items needed for the school—tables, cupboards and bookcases. The sewing class taught girls to make clothes for themselves and their families and curtains for the school. The class later branched into cooking lessons and the girls began providing hot lunches for the school. The kitchen was run by groups of students for periods of time long enough to permit them to know intimately all the details of the operation: planning, pricing, buying and keeping accounts. The sale of hot lunches to students and neighbors provided sufficient profit for a home economics demonstration house to be set up in the second tenement. The remodelling was done by students and the rooms outfitted with inexpensive and easy-to-care-for furnishings made from materials within the budgetary reach of the students' families.\\n
Three other activities which benefited the school financially were millinery, shoemaking and tailoring classes. As the students became proficient on personal projects, they were permitted to undertake work for friends and neighbors of the school, in return for a very small sum which was added to the school treasury for further improvements. Some of this work was done in classes during regular school hours, with the rest being done after school in voluntary classes.

The third tenement became a gymnasium and clubhouse for the students. Like the others, the house was in a sorry state and, once again, the students did nearly all of the work. Floors were ripped up, doors rehung and partitions were removed, furniture and gymnastic equipment made. Men of the community became interested as word of the project circulated, and plumbers and plasterers donated their time to assist in the task. The completion of the building opened further opportunities for contact with the community. A night school was begun and a social club to raise money for its continuance and expansion was organized.

The most dramatic and important change, however, was the shift in attitudes on the part of students and parents. The self-help aspects of the program made the school part of the community, quite literally a product of their own efforts, rather than something which was the creation of a distant bureaucracy. Parental interest and attitudes towards the school changed noticeably and student truancy dropped off. The number of cases sent to the juvenile court
decreased by one-half in proportion to the number of students in the school. New freedom and responsibilities were extended to the students. Older ones were paired with younger ones and were responsible for looking after them on the playground, seeing that they were properly dressed, to the point of mending their clothes if the need arose. Other students looked after much of the administration of the night school and clubhouse.

Not all of the school's activities (some of which include school gardens in the city, a school bank, the creation of a library, the organization of a parents' club, a summer school) need to be described in detail here. What is clear from this example is that labor/learning schools were not always necessarily located in rural areas and that the resources necessary to organize such an effort are as plentiful in the inner-city as in the countryside.

The inclusion of these two schools in the Deweys' book represents the new force brought to labor/learning education by the Progressives. As is well-known, central pillars of the Progressive Movement in education during the first quarter of the 20th century were the concepts of child-centered and experientially-based learning. As we have seen, these ideas were not new and could be traced in part to Pestalozzi and Froebel. They were given new force, however, by the shift of American education to state-wide schooling for all citizens,

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which ultimately had the effect of putting new requirements on public schools to cater to the needs of the general populace, rather than to an elite.

Less well-known, perhaps, is the new rationale for learning-by-doing brought to the concept of manual labor by the Progressives. More than simple exercise, as was a primary motive during the height of the Manual Labor Movement, working with one’s hands was seen as an essential ingredient to, in effect, reuniting man with his environment. As the most widely-known spokesman for the Progressive Movement, Dewey repeatedly stressed the unification of education and daily life during America's pioneering days. America's forefathers were engaged in the formation of a new government—one which had a direct relationship to their own destinies. The means of production were still local—where goods came from and where they were obvious to all. The processes of life were open to any observant child.  

The problem with the schools then, as Dewey saw it, was their inability to keep up with the changes brought about by industrialization. Workingmen were little more than cogs in a giant machine. Rarely did they have any detailed knowledge about the complete process, of which they were only a small part. In contrast, children from wealthy families no longer shared in the formation and management of a household, for all was done for them by other people, or machines.

Dewey's solution, "educational readjustment," was a challenge to the educational system to adapt to the new needs of an industrial society. The only way to arrest the growing alienation between man and his environment was to "readjust" the methods and curricula in schools: the teaching of the "three R's" had to be modified in such a way as to more closely link the abstract portions of the work with the practical needs of all children:

They are all of them concerned with language, that is, with symbols of facts and ideas, a fact which throws a flood of light upon the prevailing ideas of learning and knowledge. Knowledge consists of the ready-made material which others have found out, and mastery of language is the means of access to this fund. To learn is to appropriate something from this ready-made store, not to find out something for one's self. Educational reformers may go on attacking pouring-in methods of teaching and passive reception methods of learning; but as long as these ideas of the nature of knowledge are current, they make little headway. The separation of the mind from the activity of the senses in direct observation and from the activity of the hand in construction and manipulation, makes the material of studies academic and remote, and compels the passive acquisition of information imparted by textbook and teacher.54

And so a new force came to the aid of those favoring more creative handwork in the schools. The emphasis was not solely utilitarian, nor were suggestions made to dispense with the academic subjects which were the bulk of the curriculum at that time. The call was for modification of the teaching of many of the standard subjects, in such a way as to make it possible to include other more practical subjects (such as hygiene, home economics, agriculture, drawing, wood and

54 Dewey and Dewey, op. cit., p. 172.
metalworking) in the school day. The schools at Interlaken and Indianapolis, Indiana were excellent examples of the restructuring the Deweys advocated. American society had changed since the mid-19th century, and so had some of the reasons for the introduction of more student manual labor.

Throughout the 1920's and 1930's, the Progressive Movement continued to spawn numerous educational experiments, some of which had similar activities in learning-by-doing, such as those described by the Deweys' in *School of Tomorrow*. However, not until the appearance of several community schools in the late 1930's and early 1940's did any equal the imaginative and creative labor/learning program organized by Public School No. 26 in Indianapolis. Two of these public schools which were heirs to the student/community involvement achieved by Public School No. 26 came into existence in very poor rural areas.

Some of the best examples of labor/learning, self-help schools are found in the secondary schools which were developed in the 1930's and 1940's in the southern areas of the United States. Public support for education was slow to arrive in many rural areas, isolation and limited economic growth being largely responsible for the lack of facilities and programs. The only alternative for a concerned group of citizens was to organize a program to finance and construct elementary and secondary schools using local manpower and resources. Often these programs were given some assistance from county and state governments, in the form of advisors and occasional financial help.
for specific projects (such as a hot lunch program). However, in all of these schools, the local population concerned with the school (parents, students, faculty) provided the bulk of the manpower. In community development circles, these efforts would be regarded as classic cases of self-help projects.

In 1948, a small book entitled Selected Community School Programs in the South was published which described over twenty of these projects in detail. The following two examples were selected from the group of case studies as the most appropriate labor/learning models for consideration in this study.

The Holtville High School and the Plainview-Rover School are two outstanding examples of relative and imaginative ways. Located near Montgomery, Alabama, the Holtville School in the late 1930's and early 1940's represents an extensive use of student labor as a means of reducing costs and providing educational experiences for pupils. The school was small (two hundred students at the elementary level, three hundred at the secondary level) with a staff of twenty. The facilities at the school reveal much about the types of activities which are available to the students in addition to the regular, academic curriculum: the twenty buildings included a home economics cottage, an agriculture building, a cannery, a frozen food locker plant, a

poultry house, mechanics and woodworking shops, as well as other small buildings built by the students.

The most impressive aspect of the Holtville program was the extent of their work program:

Boys and girls have had an opportunity to get actual work experiences in the feed and grist mills which are operated as a community service by groups of students on a rotating schedule. Other students from the commerce department do the bookkeeping and clerical work for the mills. Similar arrangements are used in the cannery, the food processing plant, the hatchery, the school store, the print shop, the beauty parlor, the motion picture show, and to some extent in the school shops. Most of the maintenance of the school plant is done by the boys under the direction of one of the teachers or a foreman who is employed for the purpose. This includes construction of buildings, laying of walks, electric wiring, plumbing, and the like. One of the most ingenious pieces of such work is what has become known as the "spring project." On school property, across the highway, the boys harnessed the water from seven springs, built an 18,000-gallon reservoir and piped water to the school, supplying all the buildings, including the canning plant.

In addition to this impressive list of accomplishments and activities, the school at one time owned several agricultural farm implements which it made available to local farmers at minimal costs. The rent was low enough to encourage the farmers to use the machinery but high enough to enable the school to liquidate its investment. For example, fruit growing seemed to be a lucrative enterprise for the farmers of the region, the students helped them set out more than 50,000 peach trees over the course of a few years—trees which were

56McCharen, op. cit., p. 70.
kept healthy by the aid of the school-owned tree sprayer provided by the school's equipment rental service.

Another major project was the school bank, operated by the commercial students under the supervision of a teacher. At the time of McCharen's report the bank was handling an average of $300 a day, with up to as much as $700 on busy days. The enterprise was manned by students working in teams of two. They were required to balance the books at the end of each shift before the responsibility was turned over to the next pair. An auditing department was also created as a part of the bank where students audited the expenditures of every department, club and organization which used school facilities and maintained accounts.

A final innovation enabled the students to work at home on projects which were necessary to the family's activities and income. A student who wished to participate in the program would begin by constructing a written plan of his objectives and, with the approval of his parents, would submit it to a work council. If approved, the council would monitor the student's work and upon the completion of the student's written final report, grant him academic credit. The program was eventually extended to area businesses to further expand the scope of the idea.  

Another school with similar accomplishments was the Plainview-Rover School, located in the foothills of the Ouachita Mountains in

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57 McCharen, op. cit., p. 71.
Arkansas. At the time of the study, the area was populated largely by low-income farmers, less than twenty-five percent of whom owned their own land. The remainder were tenant farmers, growing mostly cotton and corn. Much of the most productive farmland had just been taken from the tax roles by the creation of a man-made lake. According to McCharen, "The survival of the school probably depends to a great extent upon increasing the efficiency and productiveness of the remaining farms."^{58}

Even though the school was small (two hundred forty-four pupils at the elementary level and eighty-four in the high school) the facilities included a brick homemaking cottage, a woodworking shop, blacksmith and auto mechanics shops, a community cannery and outbuildings for chickens and hogs. The uniqueness of the program at the school was not so much in the existence of these facilities, but the extent to which they have become part of the school's "outreach program" into the community. The woodworking shop was used to train students to repair furniture and construct conveniences for the home. The blacksmith shop and the auto mechanics were there as much for the use of area farmers as they were for the training of students—and, not surprisingly, the shops were organized to serve both purposes simultaneously. The cannery greatly improved what was at best a minimal diet for the families of the area; at the time of the report the cannery had been running at eighty percent capacity with

^{58} McCharen, _op. cit._, p. 97.
approximately seventy-five percent of the area families making up the pool of customers. The plant was co-supervised by one of the local women and the home economics teacher who used the facility as "on-the-job" training for her students.

One of the best examples of the school's attempt to unite its programs with the needs of the community was found in the garden program.

Instead of developing a school garden on the campus from which vegetables might be available for the lunchroom, boys and girls have been encouraged to develop home gardens from which the school might purchase vegetables. The development of these home gardens has been under the supervision of the school, and when a surplus is available the vegetables are canned in the community cannery for use in the lunchroom. It is believed by the Plainview teachers that this plan is not only as effective educationally as the school garden but also that it carries the program directly into the homes and provides a market for the products raised at home. Furthermore, it is known that the homes have more nutritious meals because of the increased amounts of vegetables produced.59

A corollary effort was developed to improve the stock of local hogs. The school began a program on the premises and as litters of purebreds began to be produced, students were permitted to take them home as their own, providing they agreed to prepare proper facilities for them and continue breeding the better strain. Payment for this assistance consisted of a return of a few of the students' pigs to the school, intended eventually for a trip to the lunch table.

It should be obvious that these two schools, like the others which have been discussed in this chapter, could not have been developed and continued to exist on student labor alone. They were both public institutions, though minimally supported, which drew heavily on whatever advice and assistance could be obtained from county, state and federal officials. It should also be obvious, however, that the manual labor programs devised for the students provided both savings in costs to the school as well as significant contributions to the welfare of the community in which the school was located. More meaningful linkages between classroom learning and involvement in the "real world" would be hard to find.

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In summary, we have seen in this chapter a few of the significant high points in the development of the philosophy and practice of learning-by-doing in the school. The earliest known examples of any "co-existence" between academic learning and training in manual skills took place during apprenticeships, as a consequence of the requirements placed upon the master to provide some schooling in reading, writing and ciphering. The first deliberate attempts to orchestrate academic study with manual labor and physical exercise began with Pestalozzi, Froebel and Von Fellenberg. Inspired by Rousseau, Pestalozzi systematically introduced conversation and example into his teaching at a time when recitation was the primary
mode of teacher/student interaction. His use of an object as stimulus for the lesson, requiring the student to form his own impressions and describe the qualities of an item, was a first step toward a more active role on the part of the student. Froebel took Pestalozzi's methods a step further by encouraging the students to make creative use of the materials—not simply to observe and describe, but manipulate into new forms and uses of the student's own choosing. This additional step produced more than the development of the kindergarten, for which Froebel is best known; it gave impetus to his beliefs that useful work was a harmonious part of intellectual development and that "classical education" was lacking in separating the child from tasks with obvious utility.

Von Fellenberg's contribution to the philosophy and practice of manual labor came in the form of schools which evolved concrete methodologies for Pestalozzi's and Froebel's theories. His farm and trade schools represent the first synthesis of more classical subjects (geography, history, geometry, natural science, religion) with the daily work required of all students. Continuous contact with the pupils as well as imaginative interweaving of the practical and the abstract made Von Fellenberg's schools unique, generating a prototype which was to become widely copied.

We have seen the rationale developed by Weld for the Manual Labor Movement, emphasizing exercise, diversion, some minimal skill training, savings in educational costs to the institution and students, and the bringing together of people from various classes in a common effort.
We have also seen, as in the case of Oberlin, how several of Weld's warnings to those practicing manual labor programs became prophetic in the eventual failure of the program. Too little business and farming experience led to a silkworm scheme which was ill-suited to the soil of the area; lack of leadership in the administration permitted faculty support and supervision to decline; students were never uniformly required to work, further diluting any impact the program might have had. A final and related problem at Oberlin was the scarcity of useful, necessary jobs, ultimately leaving the institution in a position of having too many students and not enough employment. By contrast, Berea College moved early in its development to acquire experts for farm management and supervision to underscore the importance of labor by creating a Dean's level post for labor supervision which enabled the program to be more highly integrated into the administration of the school and to diversify its program and expand its markets through the creation of student industries.

Finally, four 20th-century examples of manual labor programs were presented, which, in addition to their similarities to previous programs, found new life in the beliefs of educators associated with the Progressive Movement. As it has been shown through the spokesman of the era, John Dewey, some of the elements of a manual labor program fit the needs of the new generation who were growing far more removed from some of the simple and basic challenges of living than their ancestors. In the eyes of Progressives, the experiential nature of
work programs, providing opportunities for students to create, to discover their limits and capabilities, to make decisions, to take responsibility and perform a useful service which was recognized as meaningful and important, was the key to self-fulfillment for the 20th-century student.

The present-day realities of attempting to achieve some of these objectives will be investigated in the following two chapters.
CHAPTER III

MANUAL LABOR PROGRAMS IN THE UNITED STATES:

THREE CASE STUDIES

The three cases which were chosen for this study as discussed in Chapter I will form the body of this chapter. Each case is treated in a descriptive manner, with a conscious attempt to give the reader the flavor as well as the facts of the school's operation. An introductory section will precede each case, drawing the reader's attention to the unique characteristics of the institution—those which seem to have the greatest generalizability to labor/learning schools in other settings.

A brief summary will be undertaken at the conclusion of each case which will consist of a discussion of the most important features of the school. A complete analysis of these cases will not be carried out until the two programs chosen for Chapter IV—the portion of this study which focusses on programs in Africa—can be presented.

The cases which follow represent schools with diverse origins and student population—with differences which clearly set them apart from one another. However, threads of similarity concerning student labor run through these examples which reveal them to be linked in important ways.
This, the first of the three case studies, will illustrate three important aspects of self-help programs.

The first concerns the recruitment and hiring process for staff. As the Director of The Putney School points out, every staff member in the program is expected to play dual and sometimes triple roles as part of their teaching. No one is hired simply as a math, English, or art teacher; staff are recruited and hired for their "extra-curricular" skills which, at Putney, are considered as important as the traditional academic subjects. In this way, the School avoids a problem which has plagued past and present labor programs--that of coaxing, pleading, requiring some faculty to carry their share of the supervisory responsibilities for the work program. At Putney, work and sports supervision are alternated with teaching academic classes, thus providing a greater opportunity for parity between the three areas.

A second important feature, flexibility and diversity, is a function of the small size of the School and the large number of full and part-time staff. This feature is certainly not the unique to self-help schools, but when lack of size and a flexible outlook concerning "non-academic" projects is part of a manual labor school, projects are more apt to be initiated by students and staff without
the delays which are more typical of larger institutions. For example, two students recently constructed a log cabin for themselves which is serving as their residence this year. The project was initiated by the students, and after some discussion with teachers and the administration to ensure that the plans had been carefully thought through, it was approved. If student interest continues, one such project could be undertaken each year. Another example of flexibility might be the case with which a few activities seem to have hovered between being official parts of the work program and simply another evening activity. Auto mechanics, pottery and drama began and continue to be part of evening activities, yet all three have generated labor projects which became part of the work program. These are seemingly simple examples, and yet one suspects the closeness of the Putney community to support flexibility and spontaneity with greater ease than might be possible in a larger institution.

Lastly, the "frontier syndrome" (the decline in numbers of jobs which have an obvious connection to the survival of the school as the institution becomes more stable and established) is a problem at Putney, but not a serious one. The passing of the major construction in the early years and the decline of the farm in importance in recent years cannot fail to dampen some of the zeal of those in the labor program. However, recent projects such as a new girls' dorm, a sugar house, remodelling the theatre stage, building a small log cabin and the possibility of building a new fine arts center, are reminders that the School still has ample need for student labor beyond general
maintenance. Further, there continues to be discussion about more community service projects and work apprenticeships in the local area which may add interest, diversity and even more meaning to the work program.

These three aspects of Putney (the clear definition of work roles and responsibilities for faculty; the flexibility and diversity due, in part, to small size and large staff; and the creative search for new ways to instill spirit in the work program through new projects) should be of interest to self-help schools everywhere.
The Putney School

Putney, Vermont

The impression one gets upon arrival at Elm Lea Farm, home of the Putney School since 1935, hardly coincides with preconceptions of student and faculty constructed schools. It is almost as if one had stepped back in time to a more genteel age, before terms like "rush hour traffic" or "pollution index" were invented. Much in the manner of the fabled horse farms of the South, the "big house" and its outbuildings stretch across the brow of a prominent ridge in the Vermont countryside, looking for all the world like pictures on calendars or in tourist magazines. It is hard to imagine as one walks among these buildings that it was the scene for many years of a struggle for survival, and that student and faculty labor played a crucial role in enabling the institution to endure and grow as others faltered and disappeared.

The School was founded in the depths of the Depression by Carmelita Hinton who came to Putney from Boston in search of a place where her educationally progressive ideas could be combined with her reverence for nature and her belief in the Energetic Life. The School still very much embraces these ideas which seem to be embodied in the seldom specified, but frequently invoked euphemism, "The Putney Spirit." Like any institution, Putney has had its ups and downs, but the thrust of Mrs. Hinton's philosophy remains, one which pre-dated
by some thirty years the present rush to relevance and rejection of the formalism and rigidity which has surrounded traditional academic programs. To fully understand and appreciate what has been accomplished at Elm Lea Farm and what The Putney School has to contribute to the literature of labor and learning institutions, it is necessary to outline some of the major elements which make up their program.

The Students

The School is co-educational with an enrollment of about two hundred, grades nine through twelve. Paradoxically, from the standpoint of one of the reputed advantages of the manual labor system, the present tuition is one of the highest of any private secondary boarding school in the United States. Two-thirds of the students pay $4,600 per school year, but it should be added that there is a scholarship fund equal to fifteen percent of this sum, which makes it possible to award full or partial assistance to the remaining one-third of the students. The School competes for most of its students with many of the well-known Eastern preparatory schools, and for its minority students through the ABC Program recruiting network.¹ Most of the students score well on standardized examinations with the exception of some minority students who, due to the cultural bias of

¹The ABC (A Better Chance) Program was started in the mid-sixties by a consortia of private schools as an effort to locate and recruit greater numbers of talented minority students.
these exams, score lower. The School has never found it necessary to advertise for students; it has received considerable national publicity over the years which, in addition to recommendations between students' families, continue to swell the applicant pool to a point where less than a third of those applying are admitted.

The Faculty

In comparison with any school, the Putney teacher/student ratio is rich. There are nearly eighty full and half-time faculty and staff. Thirty-five of these are full and half-time teaching positions, the balance being in supportive services such as the kitchen, general cleaning and maintenance (painting, carpentry, management of the farm, some general housecleaning, secretarial and administrative support services, etc.). Many of these staff who are not teachers, nevertheless, supervise manual labor or teach in the evening programs. Four of the non-teaching staff are employed as full-time administrators. The power of this staff is not found in these numbers, however. Their impact is more a product of the multiple interests possessed by virtually all of the teachers (and many of the other staff) who, serving in dual and even sometimes triple roles, make available an unusually wide range of choices for students.

The range of choices consists of several foreign language, science and fine arts courses. It also means that a French teacher will have, as part of her contract, an obligation to run the field hockey program
and perhaps even assist in a second sport. A math teacher will also serve as the soccer and cross-country ski team coach; biology teachers will double up as overseers of the School garden, land use and management, forestry and conservation programs. On the surface, this multiple use of staff may sound much like any normal boarding school anywhere in the world. However, the apparent difference at Putney is the significance given faculty responsibilities in activities which are traditionally regarded in most schools as extra-curricular. The staff at Putney is strongly encouraged and rewarded for making these activities co-curricular.

Perhaps a testimony to the dedication of the staff is that while many of them are doing the job of two people, the salaries they are currently paid are lower than the norm for private boarding schools: salaries, which include free room and board, begin at about five thousand dollars per school year for a new teacher (about five hundred to one thousand dollars below the norm, according to the Director); the median salary is about seven thousand five hundred dollars (about fifteen hundred dollars below the norm); the top teaching salary is about twelve thousand dollars (on a par with most other schools of this type). Clearly, it is not exorbitant individual salaries which cause this portion of the School's total budget to be high. Rather, it is the aggregate of the large number of those employed which contributes significantly to the School's operating costs. Compared to other established boarding schools in northern New England, Putney spends the greatest amount per student for
salaries, but the smallest amount per student for maintenance and other overhead. Obviously, the emphasis of the program is in the quality of the teaching and supervision, not in the facilities. This is an important feature for self-help institutions where education and self-sufficiency are priorities.

The Curriculum

Today, as in the past, the heart of the curriculum is preparation in the liberal arts—science and mathematics, the fine arts, history and languages. Classes are small (twelve to fifteen students) and most meet only three times a week, with the remaining two periods reserved for preparation. Grades are never given to students or parents; in their place, comprehensive reports are given to both parties three times a year. As a necessary evil of college admissions, letter grades corresponding to the level indicated in these written summaries are kept on file for college entrance purposes only.

Although the courses bear a strong resemblance to the usual college prep track at any public high school, their uniqueness is based in the freedom the instructor and class have to pursue the topic in their own way. The classes are bolstered by special twists, such as Work Weeks when the courses do not meet and students work on independent projects. In addition, a special Project Week is organized immediately preceding the commencement of winter and summer vacations during which time an academic and non-academic project is completed by each student.
Discussion of the academic program at Putney is not complete; however, without some special attention given to the "evening activities" program, where the School's diversity is most in evidence. Normally, every student is involved in three evening activities each term. They are scheduled each Monday, Tuesday, Wednesday and Thursday evening, one of the four evenings being set aside for study.

The range of "courses" offered is determined by the skills and interests of the faculty and staff, and the diversity rivals any secondary school or college in America. The list below is taken from the 1971-1972 catalogue:

- Architecture
- Auto Mechanics
- Black Studies
- Bookbinding
- Chamber Music
- Communications Workshop
- Civic Action Study Group
- Cooking
- Current Events
- Drama
- Drawing and Painting
- Electronics
- Fabric Printing
- Figure Drawing
- First Aid
- Folk Dance
- Free Reading
- Graphics
- Gun Club
- Japanese Life
- Leatherwork
- Madrigals
- Magazine
- Metalwork
- Modern Dance
- Needlework
- Newspaper
- Orchestra
- Photography
- Play Reading
- Poetry Reading
- Pottery
- Religion
- Rug Making
- Sewing
- Sculpture
- Spinning, Dyeing
- Tailoring
- Typing
- Weaving
- Woodworking

This cornucopia of offerings not only provide opportunities for students to pursue interests in "academic" areas, but also has some connection with the work program. The Civic Action Study Group (C.A.S.G.), as well as the evening activities in pottery, drama and auto mechanics
supplement to some extent the manual labor program. The C.A.G.S. program arose out of an interest of students and one staff member who wished to get involved in social action work with agencies in the nearby town of Brattleboro. To date, students have worked with the Planned Parenthood Association, one of the State mental hospitals located in the town, Head Start and Follow-Through classes, the State Attorney's Office, a day care center, two environmental agencies, Zero Population Growth and local political campaigns. The most logical time to carry out these projects was during that set aside for the work program, a fact which spawned some discussion as to the nature of "valid" work for the School. One argument was that work done off campus in the name of the School for the "community at large" was as legitimate as working on the farm or with the conservation crew. The counter-argument was that the definition of work ought to continue to be limited to only vigorous outdoor labor, with a more direct relationship to the maintenance of the institution. Those pressing for a broader interpretation of the definition of labor prevailed, at least for the time-being, and the C.A.G.S. work is done during the afternoons when manual labor is scheduled.

Pottery, drama and auto mechanics began as evening activities and have resulted in work done for the School as part of the manual labor programs. In the case of the pottery course, a considerable amount of work is required to service and supply the studio for classes, and this is done as part of the work program by one of the students. Several others produce handicrafts (pottery, jewelry and
weaving) for sale. The proceeds go to the fund for the new fine arts building. Another example is the auto mechanics course taught by the Director of the School. All of the work done by the group is on the School's own vehicles and the relationship to the School's welfare is clear: the School's Director estimates that the extra care will make it possible to skip the usual annual replacement of one of the vehicles—a savings of several thousand dollars in this year's budget. Finally, a direct link exists between the drama program and the work program, through the refurbishing of the School's theatre and the rebuilding of the School's stage. The need had existed for some time; when the money for materials became available, interested students were assigned the task as a labor project. The same flexibility and inter-relationship between the various dimensions of the curriculum at Putney has made it possible to consider alternative plans for a new fine arts building as part of an evening activities program on architecture. This project is now underway with thirty students, five teachers and an architect in residence. Together they are building the twelve thousand square foot structure which they designed, using wood cut and sawed from the School's forest land. First aid is also taught as an autumn evening activity to prepare those who will serve on the ski patrol (considered as a winter work project). The inter-relationship between evening activities and the work program is far from complete, but as exemplified by the cases above, when "academic" interests and manual labor needs coincide, the School's flexibility permits a meshing of the two.
Much more could be written about the diversity of the program; the Sunday evening talks on ethics and philosophical subjects; Friday night "sing," an extension of the music program which permits all members of the community to share in the fun of making music; four-day expeditions into the nearby mountains and rivers each spring and fall; the all-school ski trip; and special seasonal events such as the Harvest Festival and the festivities at Christmas. But the real uniqueness of the School is found in the combined impact of the work and household job programs; if academics and the evening activities program are the heart of Putney, then these elements are the School's backbone.

The Work and Household Job Programs

The "work-job" program, as student labor is known at Putney, and the household jobs were begun for reasons of educational philosophy and simple economic survival. Mrs. Hinton, the founder of the School, was greatly influenced by the idealism and energy of the youth movements of the thirties and incorporated a vigorous work program in the schedule from opening day. In fact, the first school year really began in the summer of 1935 as a youth workcamp to winterize the buildings. When the students moved in and formal classes were organized, the work program continued as part of the daily schedule. In the shadow of the Depression, the farm's yield of produce, meat, poultry and eggs spelled the difference between survival and failure.
Crops had to be planted, cared for and harvested, animals required daily attention; and without the labor of students and faculty, this work could not be done. More space was badly needed. Living conditions were so crowded that voluntarily Mrs. Hinton used the back of her station wagon as a personal bedroom for the entire first year!

Expansion of the facilities, maintenance of the buildings and grounds, and assistance in the kitchen as well as everyday household tasks had to be the work of all. There was no money to pay others to do it. And, in many ways the work complemented the educational philosophy of the School. Much of it was outdoors. It was a vigorous contrast to the classroom, and it paralleled nicely the sports program which was outdoor-oriented.

According to the School's business manager, the financial support obtained through operation of the farm, as well as from other major student labor projects, has declined somewhat for several reasons. Concerning the role of the farm, beginning in the early 1950's technological changes in farming began to make the economical operation of small farms difficult. Over the next ten years, Elm Lea Farm at Putney was affected in the same way that thousands of small farmers across the United States were; the emergence of "corporate farming"—the agricultural specialization and growth in numbers of giant farms—made survival difficult and eventually impossible. Pork, poultry, milk and even garden vegetables could be purchased on the open market more economically than they could be produced by the School. A further problem was the time required to dress and prepare
the food before it could be used in the kitchen. When packaging techniques improved, the time and labor required to wash and prepare produce, dress meat and poultry, became costly when balanced against manpower which could be used for other tasks. These changes were the major reason the economic role of the farm began to diminish. However, Putney's Director reports that in the last three years the growth of interest in gardening and the usefulness of the poultry farm has increased. The recent shifts in the United States' economy evidently have spurred interest as well as made it more economical for some of these activities to play new roles in deferring costs. Two additional factors contributed to the decline of the economic importance of the labor program. As the School grew and the construction industry became more sophisticated, certain jobs which could be undertaken at an acceptable level of quality, and with a reasonable degree of competence, had to be done by professionals. The installation of plumbing and electrical fixtures demanded more experience and knowledge than possessed by most students and faculty. Setting up forms for poured foundations, installing factory-built windows, and engaging a backhoe to dig foundation trenches were jobs best performed by professionals. And, it has been found that some contractors expect to be paid more when student labor is a requirement! The increased responsibilities of managing, teaching and organizing rotating crews of students has, on occasion, required greater payment which naturally offset any savings in the employment of extra personnel.
Finally, it is possible that shifts in job interest have taken place over the years. A phenomenon which seems to exist in most labor/learning institutions is what may be dubbed the "frontier syndrome." When the institution is young and struggling for survival, when the challenges are as basic as shelter and food, the need is clear and immediate and, predictably, the response is strong. Once these challenges have been met, it is more difficult to muster a similar enthusiasm for the more mundane duties of everyday maintenance. New ways of involving students in the management of the institution and new definitions of labor have to be found to give the system meaning.

Administration of the Program

The School has had a coordinator of work-jobs ever since anyone can remember. The person is a faculty member who is hired specifically to teach one or two courses as well as coordinate the "afternoon program," the Putney term for work and sports programs. Each term (the School has three) the students are presented with a list of sports and work choices. These lists vary from term to term because institutional requirements as well as sports change each season. The students are asked to rank-order their preferences (1 to 4) for both work-jobs and sports. Matching first choices with the School's needs is not always possible, but it happens frequently
for many students. The list below was used by the coordinator of the athletics and work-jobs program for the fall of 1972.

**SPORTS CHOICES**

<table>
<thead>
<tr>
<th>Tuesday-Friday</th>
<th>Monday-Thursday</th>
</tr>
</thead>
<tbody>
<tr>
<td>Two-Day Soccer (Co-ed)</td>
<td>Three-Day Soccer (Friday, too)</td>
</tr>
<tr>
<td>Cross-Country</td>
<td>Field Hockey</td>
</tr>
<tr>
<td>Riding</td>
<td>Riding</td>
</tr>
<tr>
<td>Volleyball</td>
<td>Biking</td>
</tr>
<tr>
<td>Touch Football</td>
<td>Hiking</td>
</tr>
<tr>
<td>Biking</td>
<td>Tennis</td>
</tr>
<tr>
<td>Hiking</td>
<td></td>
</tr>
</tbody>
</table>

**WORK JOBS**

<table>
<thead>
<tr>
<th>Monday-Thursday</th>
<th>Tuesday-Friday</th>
</tr>
</thead>
<tbody>
<tr>
<td>Farm</td>
<td>Farm</td>
</tr>
<tr>
<td>Tool Shed (Only 2)</td>
<td>Tool Shed</td>
</tr>
<tr>
<td>Attendance (Only 1)</td>
<td>Attendance</td>
</tr>
<tr>
<td>Horse Barn</td>
<td>Horse Barn</td>
</tr>
<tr>
<td>Trash</td>
<td>Trash</td>
</tr>
<tr>
<td>Ski Crew</td>
<td>Garden</td>
</tr>
<tr>
<td>Garden</td>
<td>Conservation</td>
</tr>
<tr>
<td>Conservation</td>
<td>Crafts Production-Metalwork</td>
</tr>
<tr>
<td>Girls Conditioning</td>
<td>Store</td>
</tr>
<tr>
<td>Landscaping</td>
<td>Art Studio</td>
</tr>
<tr>
<td>Kitchen Help</td>
<td>Drama Productions</td>
</tr>
<tr>
<td></td>
<td>(Tuesday only)</td>
</tr>
<tr>
<td>Paint</td>
<td>Harvest Festival</td>
</tr>
<tr>
<td>Store</td>
<td>Animal House</td>
</tr>
<tr>
<td>Household</td>
<td>Emergency Projects</td>
</tr>
<tr>
<td>Crafts Productions-Pottery</td>
<td>Media Communications</td>
</tr>
<tr>
<td>Harvest Festival</td>
<td>Horticulture</td>
</tr>
<tr>
<td>Alumni House</td>
<td>Admissions Office</td>
</tr>
<tr>
<td>Stage Crew</td>
<td></td>
</tr>
</tbody>
</table>
LONG AFTERNOON WORKJOBS

Vehicle Maintenance—Monday
Civic Action Study Group (C.A.S.G.)—Thursday

The operation of the afternoon program becomes apparent upon examination of these alternatives. Students have a great number of sports and work-jobs choices open to them. Almost everyone works two days a week and participates in sports the other two days. Exceptions exist, however, such as with auto mechanics and the C.A.S.G. program and, evidently, if a student elects to participate in three-day soccer, he is only required to work one day. A major change in recent years is having Wednesday afternoon free, where nothing is required of students, while there is a staff meeting. Everyone in the community is free to indulge themselves in whatever activity (or "non-activity") they wish. This represents a clear departure from the early days where all were expected to be productively occupied every waking minute.

"Household jobs" is an additional program of daily jobs which complement afternoon work-jobs, but is administered separately by a staff member and several students. This committee assigns jobs, based whenever possible on choice, to every student. These jobs change three times a year and include dishwashing, kitchen work, waiting on tables, cleaning common rooms, bathrooms, classrooms and some of the farm's out-buildings, taking attendance, handling the
laundry, as well as numerous other "maintenance" tasks which must be done to facilitate the smooth operation of the School. In contrast with the afternoon work-job program which is a focus for special jobs and projects, household jobs are daily tasks performed by every student. And, although they are probably not as educationally important, there is no question that this labor represents a savings to the School—savings which ultimately would result in higher tuition.

The School's catalogue has the following to say about the work program:

Student participation in the work program is essential for the maintenance of the School and for the creation of new undertakings. More important, the students are given a chance to become active contributors to the welfare of the community, and to learn some of the skills involved in manual labor.2

In 1970 the School sent questionnaires to its graduate population of nearly 1,500 people and received nearly 500 responses--a 32 percent response. In answer to a question about what things at the School were most enjoyable while they were on campus, work-jobs placed fourth (with 23 percent) behind music (31 percent), "general environment, and skiing.3 However, a random sample of the responses from those who graduated during the School's formative years (1938-1943) when the manual labor program was most necessary to the School's survival, reveals surprisingly few specific references to the value of the work program.

3 The Putney Post, May 1971, p. 11.
To be sure, work on the farm is mentioned occasionally as being rewarding, and other skills such as painting and carpentry are commented on once or twice. But there is a curious absence of any special mention of the value of the work program, as it related to challenges the graduates faced later in life. In all fairness, it should be noted that the purpose of the questionnaire was not specifically to probe for effects of the work program and thus not many comments should be expected. Here the need for some systematic canvassing of graduates of labor programs becomes apparent, to determine what, if any, long-range effects of the program are evident.

Issues

As it will be with all of the schools visited for these case studies, it should be understood that no attempt is being made here to comprehensively review and evaluate the labor program at Putney. The observations here are taken from those interviewed and, therefore, known to the staff of the School.

Putney's biggest challenge in the work program in recent times has been maintaining attendance and morale and, according to the present Director of the work program, this has ceased to be as much of a problem now as it was in the past. Obvious job utility and necessity seem to be the keys to keeping the students' interest and attendance high throughout the school year. As a job relates less
and less to the direct needs of the institution, the students' interest tend to drop off proportionally. The supervisor is central in the process of making the work relevant and, as it has been pointed out, this varies from faculty member to faculty member. The situation is much better now than it has been in the recent past, and it promises to improve in the future.

A second problem concerns communication of work needs within the School, so that students can be more efficiently matched to projects as they arise. This is especially crucial since, during the winter months, there is a surplus of workers and not enough work-jobs to go around. The Director of the work program would like to set up a schedule of prospective tasks with enough lead-time to be able to assign small groups of students to them, to ensure that some of the students are usefully occupied in labor for the School during at least a portion of the winter. As this system is organized and work projects are better anticipated and scheduled, the winter lull in the work program will diminish accordingly.

Finally, as will be the case with most of the other programs under examination in this study, little data is available at Putney to determine the amount of money the School saves through the employment of students. There is no doubt that savings are achieved in all major work categories and that not as much diversity could exist in the Putney program without the labor supplied by the students. But dollar amounts attached to the question of savings are hard to obtain.
One example, already cited, is the Director's estimate that student servicing of the school vehicles has prolonged their life, thus making it possible to wait a year before purchasing an additional vehicle. Another is the savings in the student-constructed buildings and modifications of existing facilities, with the recent construction of a girls' dormitory, the present rebuilding of the theatre stage, and the present construction of a fine arts building. A final example of savings, as noted by the school's Director, concerns the cost of feeding students. He points out that each year, compared to other established boarding schools in northern New England (numbering about twenty in all), Putney spends the least money per student in the entire dining program, but the most money per student for raw foodstuffs. This is possible through the combined result of the School continuing to produce some of its own food and the student labor in the dining room. In this way, costs are still being reduced, but perhaps not as significantly or in as many obvious ways compared to earlier days.

These activities, when added to the day-to-day operation and maintenance of the School, unquestionably effect a savings; but as the School's business manager confesses, there simply has not yet been sufficient time or need to do a complete cost/benefit study of the labor program.

The need for further research, in the case of follow-up work and the above-mentioned cost/benefit analysis, is clear. Most labor/learning institutions are making their biggest contributions in
everyday operation and experimentation, which leaves little time for detailed self-study. The School at Elm Lea Farm in Putney, Vermont should be part of any effort to obtain more systematic data in either of these two areas.

In summary, it is clear that the Putney School, of necessity, was founded on strong community participation and self-help. The work program has, over the years, become more important as an educational experience than as a significant financial savings. As a few of the preceding examples demonstrate, some savings is still achieved through the labor of students. Precise figures are difficult to obtain, however, as time and resources have not been available for in-depth cost/benefit studies.

It is also clear that the success of the Putney work program is largely attributable to the willingness of teachers and staff to play dual roles—that of work supervisor, in addition to their other responsibilities. Spelling out responsibilities at the time of hiring, coupled with continuous administrative support and reinforcement, seem to ensure that teachers and staff participate in the supervision of the work program. Another important aspect of the program is flexibility, which enables the School to respond to needs and interests of students easily, so that projects can be explored, pursued and incorporated into the work program as necessary. Projects such as the girls' dorm, sugar house, and fine arts center demonstrate that institutional needs can still generate considerable creative work, but these programs must be planned so as to allow work by
non-professionals at slower rates of completion. In this way, the "frontier syndrome" can be most easily avoided through controlled expansion and replacement of facilities.

Despite some obvious characteristics which make the Putney School similar to many private boarding schools, it is clear that the work program is one of the features which distinguish the School from the others. And, as it has been shown, the School contributes some important ideas to the concept of self-help, student labor programs. Some of these ideas and problems will appear in similar forms in other cases which follow; the limited size of the Putney program will not preclude some direct similarities with some of the larger programs which are a part of this study.
Berea College

Introduction

The following case study on Berea College will exemplify several familiar dimensions of self-help, manual labor programs as well as illustrate some additional ones.

Berea represents the most diverse and sophisticated labor program of the cases, in terms of jobs available to students and the type of system which has been organized to support and remunerate them. The selected work assignments contain many of the usual self-help school tasks, such as work with food and custodial services, and general labor on the buildings and grounds. However, the student industries program is unique and impressive because of its scope. Students have the opportunity to learn useful skills such as weaving, furniture making and pottery at a level of craftsmanship which has to be seen to be appreciated. Usually several months are required to train students before they can create products at a level of acceptable quality for public sale but, as Berea's experience shows, the task is not impossible and worth the effort.

Other jobs where students are given responsible roles in administration and instructional roles in academic departments are some of those which represent the best examples of learning-by-doing at the College. The evolution of a labor program to these skill levels is one of the most significant contributions to the manual labor system which the school has made.
The other completely unique feature of the Berea program—one which offers a viable alternative to straight tuition reductions in exchange for labor—is the system of job classification and remuneration. Although such a system initially appears to be complex and even cumbersome, Berea's ability to make it work for over ninety different jobs and one thousand four hundred students ought to be proof enough that it can be done. Special note should be taken of the responsibility placed on students. Although most freshmen are simply assigned to a job during their first year on-campus, they are required to seek out their own places of employment for the following year. The burden is on the student to "negotiate" the work schedule with the supervisor and see that the necessary paperwork with the Labor Office to obtain approval for the assignment is taken care of. The evaluations done at the close of each semester are the basis for pay raises—and occasionally, disciplinary action. The process is one which forces a high amount of accountability between the student and those implementing the labor program. These elements of the Berea system are designed to support one of the primary objectives of the Labor Office, replicating an actual employer/employee relationship in the outside world.

Berea's greatest challenge in the labor program seems to be finding new ways in which a dialogue about labor can take place. With a few exceptions due to an especially talented supervisor or unusual work situation, no opportunity exists to discuss any of the philosophy, rationale or day-to-day problems of the work program on a
regular basis. A portion of the "Issues and Values" course required of all freshmen might be used for this purpose. Another boost to the present program might be organized in the form of in-service workshops for labor supervisors, special programs and conferences which would enable the Labor Office to establish closer communication with its staff. The effect of both of these suggestions might be to further strengthen an already impressive program in such a way that greater integration between thinking and doing could take place.
Berea College
Berea, Kentucky

For over a hundred years, Berea has been a monument in Kentucky—sort of an educational equivalent of the legendary blue grass and long rifle, a name which easily comes to mind whenever education in the South is being discussed. The school traces its roots to the reform movements of the 19th century and to a group of people who founded an anti-slavery church and a one-room elementary school in 1855. The founder, Reverend John G. Fee, soon began to urge the creation of a higher school, one which would be co-educational and teach anti-slavery ideas to those preparing to become teachers, ministers and farmers. It was also an early objective to "furnish labor for as many students as possible, not only to help (the students) pay expenses, but also to dignify labor in a Southern state where slavery tended to degrade manual labor." Thus was begun the institution which to this day administers the oldest, and perhaps the most diverse, labor program in America.

Berea College has changed dramatically since the early days of its founding. The one-room school eventually gave way to a junior high school, which was soon to be followed by a high school, expanded into vocational and normal schools, culminating finally in a four-year

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college. As the years passed and the State and county assumed more responsibility for public education, the high schools, vocational and normal schools were closed. Some of the same programs were continued, however, but at the college level: the school boasts majors in industrial arts, nursing, education, business administration, home economics, and agriculture, in addition to the liberal arts. The campus, dotted with brick buildings and canopied with giant oaks, occupies over a hundred and fifty acres of land around a hilltop on the fringe of the Cumberland mountains. The farmlands and forest occupy another eleven hundred acres of land, much of which is given over to experimental piggery and poultry farms. Relative to most other labor/learning institutions, the school is large, diverse and complex, and its work program accurately mirrors these characteristics.

Students

An understanding of the labor program begins with the students who come to Berea. The school consciously dedicates itself to serving students from the eight states which are occupied by the Appalachian Mountains (Alabama, Georgia, Kentucky, North Carolina, South Carolina, Tennessee, Virginia and West Virginia); a list of two hundred forty counties is published in the catalogue and, as a rule, 80 percent of Berea's one thousand four hundred students come from this area. About 15 percent are admitted from outside this geographic area and the remaining 5 percent are foreign students.
Because the school began as an anti-slavery institution, Berea has had a strong commitment to inter-racial education, with the exception of the period during which Kentucky law made it illegal for children of different races to attend the same school. Approximately 14 percent of the present student body are black, a figure well above the 5 percent black population level who reside in the mountain counties which the school services.

Most students coming to Berea have something else in common, in addition to coming from the same general geographic area: they come from low-income families and most could not afford to attend the school without the scholarship aid and the work it provides. The importance of the financial assistance is underscored in conversations with students who always list low cost as one of the major reasons for coming to school. Each student pays approximately nine hundred to one thousand dollars for two "term bills," as they are called, which cover room, board and numerous health, laundry, physical education, insurance and lab fees. The cost of providing educational services at Berea has been calculated to be in excess of three thousand dollars per student per academic year, leaving over two thousand dollars which is covered by earnings from the school's endowment and yearly gifts from beneficiaries to the institution. The endowment and these gifts also make it possible for the school to pay an hourly wage to each student for the labor he or she performs. One of the objectives of the labor program is to circulate some of the school's resources to students to assist them in deferring day-to-day expenses during the
school year. Clearly, the Berea system is unique and contains some special characteristics which are intertwined with the historical evolution of the school, its role as an institution of higher education and the nature of the financial support it attracts. An examination of the school's experience with a labor program is useful in singling out those dimensions of the system which are relevant for all labor/learning schools, regardless of level or location.

The Labor Program

The campus of Berea College looks straight out of the "Ivy League." Georgian architecture abounds, and the overall impression is one of brick, fitted out in white wood trim—the same ruffles and flourishes which can be found in Amherst, Providence or Cambridge. It is difficult to imagine the modest beginnings of over a hundred years ago when the site was little more than a church and a farm and a collection of buildings which served as a school.

The early years were ones of struggle and, as seems to be common to most labor/learning institutions, the labor program played a crucial role in helping the school survive. Until recently when the college became the only educational level provided, Berea represented one of the few educational opportunities available to students from the mountain areas. The initial vocational thrust of the school resulted in the more obvious linkages between the students' labor and the growth of the institution: work in agriculture was an absolutely essential contribution to the welfare of the community and
when buildings needed to be constructed, students supplied wood from the sawmill, bricks from the ovens and general labor for the entire operation. The challenge was on, the frontier was real and few could fail to see the importance of the tasks demanded of the students.

The program today has to be the most complex and diverse in the nation. Although the following summary is only a skeletal shadow, it serves to highlight the program's major elements which will provide a backdrop for an examination of the lessons learned at Berea.

Objectives

Berea has seven "Great Commitments" which form the heart of the goals of the institution. Number four is, "To demonstrate through the Labor Program that work, manual and mental, has dignity." Labor is mentioned again in the sixth major objective: "To maintain and encourage in our students a way of life characterized by plain living, pride in labor well done, zest for learning, high personal standards, and concern for the welfare of others."^5

The summary of purposes which make more specific these generalized objectives is found in the Information Kit about the Labor Program which is provided to all students. These objectives are quoted in full for two reasons: their specificity reveals the extent to which labor plays a significant role in Berea's philosophy and operation; the explicit statement of these purposes provides an

ideal against which it is possible to compare and contrast the day-to-
day realities of running the program. It is emphasized in the Kit
that the "program is designed to serve several purposes and must be
seen in more than one dimension." The labor program's objectives
are:

-- To enhance the total educational program through learning of skills, responsibility, habits, attitudes, and processes associated with labor. Self-development in knowing how to do things, to solve problems and to meet needs is a very important part of a liberal education.

-- To support a democratic community culture in which economic and social distinctions are minimal. Everyone works regardless of his economic situation or social background.

-- To provide and encourage self-help opportunities for students in paying costs of board, room and related expenses. Labor payments of over $700,000 per year are the most significant form of direct financial aid.

-- To provide manpower for college operations, keeping costs to students low and maintaining college programs at an economic level. The value of student services through labor in general exceed the direct labor payments made to them.

-- To provide opportunity for the expression of service to others and to the community through labor. Basic services of food service and custodial work contribute to meeting community needs along with such programs as Students for Appalachia and the adult literacy activities of STABLE (Students Teaching Adult Basic Literacy Education).

-- To establish a life style of doing and thinking, of action and reflection, of service and learning that carries on beyond college years.6

6Berea College Student Labor Program, Information Kit, September 1972, mimeographed.
Implementation of the Program

The overall supervision of the labor program dedicated to the above objectives rests with the Dean of Labor, who directs the activities of the Labor Office. This office is staffed by eleven people (most of whom are part-time student workers) whose primary task is to allocate student manpower to the over ninety different labor departments on campus. A complete listing of all of the jobs available to students would be too lengthy and detailed for elaboration here. The jobs can be grouped, however, into several major categories, which will provide an idea of size and scope of the program.

The largest number of students (about four hundred fifty) are employed to assist directly with the academic program, serving as secretaries, laboratory assistants, tutors and teaching assistants. Approximately three hundred fifty students serve as general laborers, craftsmen, and managers in the student industries (needlecraft, ceramics, woodcraft, broom making, lapidary) and general services to the college and community (laundry, a bakery, the Boone Tavern Hotel, and the college press). The next largest group of students are employed to assist with the college food services and custodial work (about three hundred). Two hundred students are working as clerical assistants for the college administration (library, accounting, registrar, labor and admissions offices and the health service). Finally, a recent work category has been added, that of community
service programs (Students for Appalachia and Students Teaching Adults Basic Literacy Education are two examples) in which about one hundred students are employed.

Student assignment, the allocation of the manpower resources of the institution, is one of the biggest and most important tasks of the Labor Office and the Dean of Labor. Berea has resolved the usual problem of individual preferences versus institutional needs by requiring all freshmen to accept the job assignment given them for their first year on campus. Traditionally, these tasks are the less popular, but essential services, custodial and low-level clerical jobs which, over the years, have become a rite of passage to the more highly paid and skilled tasks performed by upperclassmen. The incoming class of freshmen are canvassed prior to their arrival to determine the level and nature of their previous work experience and, where possible, an attempt is made to match student qualifications with needs. The successful completion of this initial assignment opens the way to a choice of jobs for sophomore, junior and senior students; they are encouraged to seek jobs in departments of their academic specialty or in areas of strong individual vocational interest. On occasion, if an unusually large amount of training has been invested in a student, he will be strongly encouraged to stay on in the department of his freshman assignment. The system is ultimately flexible, however, and the final decision always rests with the student, who has the basic responsibility of making the arrangements for the following year with prospective supervisors. As in the "real world"
which the labor program seeks to duplicate, the burden of seeking next year's employment and processing appropriate papers rests with the student. The Labor Office can and will assist in the process, but only if the student indicates that help is needed.

Salaries are set through a newly instituted Step and Grade System, similar to the one used by the United States Federal Government as well as many state governments throughout the country. While the system initially seems complex, it is essentially a simple process recently established by the school's new Dean of Labor to overcome a serious problem which developed through the years as the labor program (and the institution) expanded. Even though all students are expected to work ten to fifteen hours per week in their jobs, it developed that a few loosely supervised tasks (primarily custodial) could be accomplished in much less time and leaving the student that much more free time than his peers. This situation naturally gave birth to a demand for these jobs, most of which were handed down from upperclassman to upperclassman through a system of seniority and created, in effect, a janitorial aristocracy which was in obvious contradiction to the spirit and the letter of the egalitarian ideals of the work program.

To counteract this tendency and reward students for assuming greater responsibility in departments, the Dean of Labor first undertook to classify work behaviors into five categories, by degree of responsibility of difficulty (Functional Levels) and then to create learning objectives for each of these levels. Chart I is the result
of this effort, which may be the first and only attempt by any school with a labor/learning program to begin to create a hierarchy of terms which describe several levels of responsibility and attach educational goals to them. Although some of the items are vague, the creation of these levels was a necessary first step to enable the departments to rank their jobs by Grade. The complete breakdown of job categories is reproduced in Chart I on the following two pages.
## CHART I

**BEREA COLLEGE STUDENT LABOR PROGRAM**

**FUNCTIONAL AND LEARNING PROGRESSIONS**

<table>
<thead>
<tr>
<th>GRADE</th>
<th>FUNCTIONAL LEVELS</th>
<th>LEARNING OBJECTIVES</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td><strong>Basic Work Habits and Attitudes</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I</td>
<td>Unskilled work</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Under supervision or structure</td>
<td>Healthy attitudes to work and supervision</td>
</tr>
<tr>
<td></td>
<td>In training</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Repetitive or routine</td>
<td>Sharing responsibility</td>
</tr>
<tr>
<td></td>
<td>Limited judgment required</td>
<td>Recognition of importance of work</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>II</td>
<td>Semi-skilled work</td>
<td><strong>Responsibility and Skill Development</strong></td>
</tr>
<tr>
<td></td>
<td>Less direct supervision</td>
<td>Application of knowledge to situation</td>
</tr>
<tr>
<td></td>
<td>Some independent judgment</td>
<td>Self-identification of skills, talents, interests and limitations</td>
</tr>
<tr>
<td></td>
<td>Semi-independent knowledge of job</td>
<td>Learning and developing confidence in skill or program knowledge</td>
</tr>
<tr>
<td></td>
<td>Some work variety</td>
<td>Appreciation of work as a process as well as producer</td>
</tr>
<tr>
<td>GRADE</td>
<td>FUNCTIONAL LEVELS</td>
<td>LEARNING OBJECTIVES</td>
</tr>
<tr>
<td>-------</td>
<td>---------------------------------------</td>
<td>----------------------------------------------------------</td>
</tr>
<tr>
<td>III</td>
<td>Skilled work</td>
<td>Importance of initiative</td>
</tr>
<tr>
<td></td>
<td>Little direct supervision</td>
<td>Awareness of needs</td>
</tr>
<tr>
<td></td>
<td>Independent judgment on procedures</td>
<td>Problem identification</td>
</tr>
<tr>
<td></td>
<td>Variety and depth</td>
<td>Analytical ability</td>
</tr>
<tr>
<td></td>
<td>Helps train others</td>
<td>Problem solving</td>
</tr>
<tr>
<td></td>
<td>Contributes to improvement</td>
<td>Role of standards and leadership</td>
</tr>
<tr>
<td>IV</td>
<td>Program or skill competence at high</td>
<td>Understanding relationships between individuals, institutions and processes</td>
</tr>
<tr>
<td></td>
<td>level</td>
<td>Comprehension of values, realities and goals</td>
</tr>
<tr>
<td></td>
<td>Only general supervision received</td>
<td>Commitment to service</td>
</tr>
<tr>
<td></td>
<td>Provides supervision to others</td>
<td>Ability to articulate and interpret observations, experiences and understanding</td>
</tr>
<tr>
<td></td>
<td>Responsible for program area</td>
<td>Development of leadership, standards and judgment</td>
</tr>
<tr>
<td></td>
<td>Makes independent judgments on</td>
<td></td>
</tr>
<tr>
<td></td>
<td>application of policy</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Accepts management responsibility</td>
<td></td>
</tr>
<tr>
<td>V</td>
<td>Assumes program directing role</td>
<td>Understanding of leadership in community context</td>
</tr>
<tr>
<td></td>
<td>Provides high technical or skill</td>
<td>Development of responsible autonomy</td>
</tr>
<tr>
<td></td>
<td>leadership</td>
<td>Ability to transmit values and interpretation to others</td>
</tr>
<tr>
<td></td>
<td>Shares management responsibility</td>
<td>Confidence of self-knowledge and value commitments</td>
</tr>
<tr>
<td></td>
<td>Substantial supervisory responsibility</td>
<td></td>
</tr>
<tr>
<td></td>
<td>High degree of independence</td>
<td></td>
</tr>
</tbody>
</table>
Once the above grade levels had been established and defined, the second step, ranking specific jobs within departments, was begun. Three examples of this process may be seen on the following page in Chart II.

The difficulty in specifying ranking for jobs within each department cannot be underestimated, and the process of definition is viewed by the Dean of Labor as continuous. To this end, he and his staff continue to meet with supervisors, faculty and administrative staff to negotiate job definitions and specifying learning objectives. For example, it will be noted that there are no Grade 5 positions specified in Chart II and, at this writing, none have been created. It appears that, as the highest level, Grade 5 positions will be limited to jobs of unusual responsibility and skill. The creation of a few Grade 5 positions is still under study by the Dean of Labor and his staff and will, no doubt, be dependent on decisions made about job definitions at lower levels. These discussions concerning grade levels serve two useful purposes: first, they focus the attention of the community on the responsibilities and anticipated learnings connected with the labor program; they make explicit the generalized items in Chart I and, in the process of creating the specifics for Chart II, students, staff and faculty are forced to examine the assumptions and objectives of each task in the context of the total program. Second, and certainly no less important, the process of specifying behaviors and learning objectives is crucial to setting pay rates and salary
## CHART II

### PRELIMINARY CLASSIFICATION

### SCHEDULE

The classification titles are descriptive and are not necessarily specific position titles. The word "student" would precede each title when used to denote a position in the labor program.

<table>
<thead>
<tr>
<th>Series Titles</th>
<th>Grade 1</th>
<th>Grade 2</th>
<th>Grade 3</th>
<th>Grade 4</th>
<th>Grade 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Office and Clerical</td>
<td>General Clerk</td>
<td>Records Clerk</td>
<td>Secretary</td>
<td>Asst. Office Manager</td>
<td></td>
</tr>
<tr>
<td>Craft and Skill</td>
<td>Craft or Skill Aide</td>
<td>Craft or Skill Asst.</td>
<td>Craftsman</td>
<td>Asst. Craft Supervisor</td>
<td></td>
</tr>
<tr>
<td>Food and Hotel Services</td>
<td>Hotel or Dining Aide</td>
<td>Desk Clerk Asst.</td>
<td>Desk Clerk Senior Waitress</td>
<td>Hotel Mgt. Asst.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Waitress Trainee</td>
<td>Waitress</td>
<td>Senior Waitress</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Busboy Trainee</td>
<td>Busboy</td>
<td>Dining Asst.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Server</td>
<td>Asst. Hostess</td>
<td>Hostess</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
increments. The result has been a pay raise scale which must be the most detailed of any labor/learning institutions in the country.

Because Berea has always believed that labor served educational as well as economic purposes, the school has never been required to adhere to the Federal Government's minimum wage requirements. Only in summer, when the school employs over three hundred students in full-time jobs, is it necessary for Berea to pay salaries at the minimum wage level. During the academic year, a much lower wage scale is used.

These labor payments are seen by the school as a form of direct financial aid to students. The school does not pretend that the wages represent full compensation for the services rendered; in many obvious cases the value of the work is greater than the payments reflect and, in a few others, the value is less. What is important for many of the students at Berea is an opportunity to earn pocket money during the school year, and this is one of the main rationales of the program. Although a few students have raised the question of exploitation, the issue is complex. As previously mentioned, the cost of an education at Berea is approximately $3,000 per student per year and is directly linked to the amount the institution is able to save each year by employing students. If wages were raised, the result inevitably would be higher cost per student, per year. Since earnings from the endowment cover only a portion of this cost, the balance would have to be made up by annual gifts and student term bills. Assuming there are finite limits to the amount of money the college is able
to raise in the form of annual gifts, the only remaining source of income is the student's term bill. Raising the term bill could eventually cancel out any increase in hourly wage, thus defeating the purpose of the original wage hike. Given this situation, it appears that wages for labor at Berea will remain lower than the minimum wage, except for the special rates during the summer.

The point of this elaborate system is to encourage more students to take greater responsibility and reward them for their efforts with higher pay. Following the successful completion of each term, students are eligible for pay increases, varying from one step within grade (if changing departments) to two steps within grade (if remaining in the same department), as well as full grade increases if promoted to a job with greater responsibility. The student can also lose two steps or a full grade if demoted within his department or if changing departments due to poor performance. The overall impact of the system is to raise the level of accountability between students and supervisors, rewarding those who assume greater responsibility and by-passing those who previously preferred to push a broom for four years. For details, see Chart III on page 127.

The system also permits those students with higher financial needs to earn extra money by accumulating "self-help labor credits." After obtaining permission from the Student Financial Aid Office, the student may contract for one to ten extra work hours per week over and above the required ten hour minimum. At the completion of the term, the student is paid twenty dollars for each extra hour
### CHART III

#### PAY GRADE SCHEDULE

<table>
<thead>
<tr>
<th>Pay Grade</th>
<th>No. of Positions</th>
<th>Step 1</th>
<th>Step 2</th>
<th>Step 3</th>
<th>Step 4</th>
<th>Step 5</th>
<th>Step 6</th>
<th>Step 7</th>
<th>Step 8</th>
<th>Longevity Rate Inc.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>500</td>
<td>$.65</td>
<td>$.67</td>
<td>$.69</td>
<td>$.71</td>
<td>$.73</td>
<td>$.75</td>
<td>$.77</td>
<td>$.79</td>
<td>$.02</td>
</tr>
<tr>
<td>2</td>
<td>450</td>
<td>.68</td>
<td>.71</td>
<td>.74</td>
<td>.77</td>
<td>.80</td>
<td>.83</td>
<td>.86</td>
<td>.89</td>
<td>.03</td>
</tr>
<tr>
<td>3</td>
<td>275</td>
<td>.72</td>
<td>.76</td>
<td>.80</td>
<td>.84</td>
<td>.88</td>
<td>.92</td>
<td>.96</td>
<td>1.00</td>
<td>.04</td>
</tr>
<tr>
<td>4</td>
<td>275</td>
<td>.77</td>
<td>.82</td>
<td>.87</td>
<td>.92</td>
<td>.97</td>
<td>1.02</td>
<td>1.07</td>
<td>1.12</td>
<td>.05</td>
</tr>
<tr>
<td>5</td>
<td>50</td>
<td>.83</td>
<td>.89</td>
<td>.95</td>
<td>1.01</td>
<td>1.07</td>
<td>1.13</td>
<td>1.19</td>
<td>1.25</td>
<td>.06</td>
</tr>
</tbody>
</table>
worked each week during the term. In this way, students with need may earn up to two hundred dollars more each term.

Working arrangements between students and supervisors are formal. A contract exists for each job, time cards are kept, evaluation forms are completed each semester by the supervisor (with copies to the student and the Labor Office) and probationary and grievance committees exist to deal with the resolution of conflict. The most common infractions of the rules are repeated lateness and "unexcused absences"; if attempts to resolve the problem with the student fail, the Labor Office moves to place him on probation. "Labor Pro" like "academic pro" is a warning to the student that a change in behavior is in order.

An ad hoc committee (comprised of the Dean of Student Affairs; a student representative appointed by the Student Assembly President; the Dean of Instruction or a representative; the Dean of Labor or a representative; plus the student's advisor, labor supervisor and dormitory Head Resident, who may act as consulting members) is convened to consult with the student, monitor his progress and generally ensure that he successfully resolves the problem with his supervisor and his job. Frequently, however, the problem is not solely with the job, and, as was underscored by the Dean of Student Affairs, serious problems with the student's job which culminate in "Labor Pro" are usually a first indicator of other problems which the student may be grappling with; probationary status is often the first red flag to signal that a student is having some serious personal problems, and
the committee is in a position to counsel the student and provide assistance before the problems become so serious that his future at the school is jeopardized.

A student's recourse to differences which he is not able to resolve within his labor department or with the Labor Office is the right of appeal to the Labor Grievance Committee (composed of two students, four faculty, two labor superintendents and the Dean of Labor who can offer advice but has no vote). This Committee functions as a board of arbitration in disputes within the Labor Program and, as such, handles most of these conflicts. In the event that the Committee makes a decision which is not favorable to the student, he still has a final level of appeal, to the High Court, which is the supreme judicial body of the community. The student appears to have considerable recourse to "due process" through this three-step (Labor Office, Labor Grievance Committee, High Court) route of appeal.

In summary, it is obvious that there are many ways the Berea Labor Program is designed to reflect several conditions of the "real" working world: following a "trial" period of one year when students have no choice as to job, the students are encouraged to seek out employment for themselves for the coming year; upon locating a job which appeals to them, they must sign a contract and they are expected to honor its provisions as though legally binding; the pay and incentive system is much like those found in government and industry and students are rewarded for assuming increased responsibility and demonstrated achievement; if disagreements between a student and supervisor arise,
several avenues of appeal exist in an attempt to insure that the student and the school have ample opportunity to present cases and have them heard before a decision is made. All of these dimensions of the program make it one of the most comprehensive and certainly one of the best in the history of labor/learning institutions. Like any other human endeavor, the program is not perfect; a few problem areas remain as challenges for the present Dean of Labor.

**Issues**

As with the other schools which were visited for this study, it should be emphasized that no attempt was made to systematically evaluate the Labor Program at Berea. The comments which follow are based solely on impressions gathered from a variety of students, faculty and staff, many of whom were randomly selected during the short stay on campus. Most of these observations and recommendations are a distillation of many of those made by members of the Berea community.

One of the more obvious costs of a program as large and diverse as Berea's is some loss of the intimacy and individualized attention which is more likely to be a part of a smaller institution. From a look at the history and evolution of the school, it is evident that a decision was made many years ago to raise the total enrollment to that which is typical of many middle-sized (one to two thousand students) private liberal arts colleges found all over America. Like many of these institutions, Berea has sought to establish the widest possible
curricular diversity while sacrificing the smallest possible loss of "community." In addition, it is apparent the founders of the school as well as their immediate successors had, as a primary objective, the establishment of an institution which would be second to none in the area for the quality of its programs and facilities. The impact of these decisions on the labor program has been significant.

First, jobs must be found to meaningfully employ the approximately fourteen hundred students who attend the school. This challenge has increased over recent years as the farm, the sawmill, heating plant and candy factory became difficult to justify as economically viable enterprises. The specter of under-employment has been a part of labor/learning schools from the early days of Oberlin College's problems with finding enough to occupy students in need and, as the technology of an industrialized society continues to make it difficult for small enterprises to compete with those producing for a mass market, Berea must continue to search for new ways to create useful work for its students. It was partially due to this need for additional employment (as well as a redefinition of what constituted labor for the school) that the tutorial and community service programs were begun. Although expansion into areas of public service is entirely in keeping with the last of Berea's Great Commitments ("To serve the Southern Appalachian region primarily through education but also by other appropriate services"), the amount of growth into this type of work is limited. Presently, only about one hundred students are employed in these tasks.
Aside from limits on the amount of opportunities of this kind which are locally available, the question of cost to the institution also cannot be ignored. As long as students work directly for the school, a savings is clearly reflected in overall operating costs. When a significant number of students move off-campus to work in the surrounding area, there is no savings to institutional operating costs and the school is simply subsidizing social service projects. The long-range benefits to the school (better relations with the region, the possible attraction such programs may be for prospective sources of grants and contributions to the endowment) are, at best, only a possible indirect benefit. Shifting employment to projects outside the community is a limited solution to problems created by too many students and too few jobs, just as under-employment and "featherbedding" is not a satisfactory answer when meaningful work experiences are part of the institution's charter. Number of students and number of available jobs may have reached the upper limits at Berea.

A second major problem which is related to the size of the Berea program is that of on-the-job learning. With ninety different labor supervisors in as many departments to oversee, it is no surprise that the Dean of Labor's primary function is one of manpower allocation and management. In a smaller school it would be possible for the Dean and his staff to know and personally monitor the work of nearly every student in the community; supervision, reinforcement and support of each worker as well as a close working relationship
with each supervisor is far more likely in a labor/learning community which is considerably smaller than the fourteen-hundred student workforce at Berea.

The amount of learning a student is able to acquire on the job is too often dependent on the built-in skill development of a particular task, as well as the luck of the draw in a supervisor's natural ability to teach a little about life in the world of work along with the skills of the task. Work in the school's Computer Center, with some of the more highly skilled student industries (particularly weaving, woodworking and ceramics) and numerous administrative posts offer obvious skill development. Learning (in the sense of significant skill development) is inherent in the task and, with a little help from a creative supervisor, the experience becomes a major part of the student's education during his time at the college. Such an experience becomes more difficult, however, for those students who hold more menial tasks (such as work for food services, custodial tasks in the buildings and on the grounds, and routine clerical jobs). The learning which takes place with these jobs is, for obvious reasons, far less related to skill acquisition.

A case in point, cited by the Dean of Labor, was a recent firing of a student working at the Boone Tavern (the inn operated by the college); the manager of the restaurant who has strong ideas about propriety of employees serving the general public, relieved the student of his duties because of his dress and long hair. The student's next class was the general "Issues and Values" course
required of all freshmen. The subject of his dismissal soon came up, a lively discussion followed and within the week the Dean of Labor responded to an invitation to join the class and participate in a discussion of problems when individual freedoms clash with the needs of an institution. The Dean of Labor is certain that there are other events such as this which would serve as living case studies of most of the conflicts which most students will have to face in the "real world," regardless of place of employment.

It somehow needs to be possible for those responsible for the labor program to do more than allocate manpower, monitor time and pay records and settle occasional conflicts between students and supervisors, who would be more than teachers of skills and managers of departments in which the laborers happened to be students. Ideally, these supervisors might someday participate in seminars with students and staff from the Labor Office which would examine the history of work, various viewpoints on labor by philosophers, theologians, economists, politicians and the man-in-the-street. Case studies, like the incident described above, could be constructed with the help of these supervisors and used as departure points for discussion. A supervisor who participated in this kind of a program would be better equipped to add a more effective counseling dimension to their interactions with student employees. In-service training for supervisors also could be initiated to provide a vehicle for greater communication and
sharing of common problems and mutual support. Most of these ideas are familiar to the Dean of Labor and are part of his long-range objectives for improvement of the program; a major roadblock to their achievement at present is that of sheer numbers and an understandable priority for satisfying essential organizational needs (records, allocation of manpower, etc.).

A third major problem is related to what has already been described as the "frontier syndrome." In many ways Berea College today looks no different from other small liberal arts colleges which might be found anywhere in the United States. The days have long since passed when cafeteria dishes were washed at each table by the students in dishpans provided for the purpose, and when long hours on the school farm were necessary to ensure that everyone had enough to eat. Machines, a changing economy and an extremely successful program to establish a sizable endowment have changed all that. What's more, officials of the school quite candidly point out that a major reason for the student industries program today is the continuance of good public relations.

7It should perhaps be noted here that once supervisors achieve "commissioned" status at Berea (similar to tenure), they become members of the General Faculty, a general assembly for school governance. They sit in as voting members on all standing committees (which are not concerned with strictly academic department matters) and participate in all school-wide decisions. In short, they are fully accepted members of the Berea community. What is being advocated here is some special attention which might give more strength to their roles as teachers.
Berea has acquired a national reputation as the school where students pay their own way by breathing life into dying mountain crafts. Despite the fact that many of these students are taught these crafts for the first time when they arrive at the school, concern about under-employment and utilization of some students exists. The school does little to discourage the impression that the school depends on student labor and the sale of their handiwork for its survival. As we have seen, costs would rise and no pocket money would be available if the labor program did not exist, but it is hard for students to feel the same kind of survival vs. extinction identification with their efforts as students must have during earlier times when the challenge was clear. A combination of these factors seems to have produced a sort of ennui among some of the students interviewed.

A final source of disinterest also might be traced to a feeling on the part of some students that too much responsibility and too little authority is shared with them. A few students were strong in their opinion that they could hand more responsibility than they felt they were given credit for by the labor program supervisors. These impressions, it must be noted, may not be universal, for there are a number of positions held by students at Berea for which a high degree of responsibility is expected and required. Good examples are some of the clerical and administrative positions in which confidential and sometimes sensitive information concerning students and staff are handled by students in their work for administrators and department
heads. When questioned about any problems with this system, the Academic Dean of the College replied that to his knowledge students in these positions had always handled these matters as professionals and, to date, no serious problem had ever occurred.

Students and faculty who feel that workers should be given more responsibility and authority would probably not quarrel with the example given above, but most would like to see the practice extended to a wider range of jobs. As the Dean of Labor is able to complete the reorganization of the program and turn his attention to issues such as those concerning training, job responsibility and development of a forum where the program can be discussed, the issues mentioned here will diminish in importance.

One last dimension, that of finance, will complete this study of Berea. As with other labor/learning institutions, specific figures on the possible savings in operating costs due to the use of student labor are difficult to obtain. To the knowledge of the Dean of Labor, no cost/benefit study had ever been done on the program. The difficulties arise in at least three areas. First, the value of the labor performed by many students can be calculated, based on what the school would have to pay for the same service if it hired outside workmen to do the jobs. However, the consensus of many of those interviewed seemed to be that many of the jobs which students held were far from critical to the school's operation and, in fact, could be eliminated without impairing the institution's effectiveness or capabilities. To the author's knowledge, no attempt has been made to
separate the essential jobs from those less crucial to the school's functioning, to determine whether the drain on the treasury from supporting the latter, is offset by the savings on the essential tasks performed by students at lower pay.

A second complicating factor in computer cost/benefit is the unknown return on the goodwill generated in the local area and the public relations value of the work program. The operation of Boone Tavern, the crafts industries, the work by students in the Appalachian region all bring benefits to the school, in the form of tourist business and contributions from those enamoured of the labor program in its accomplishments. School officials acknowledge that many sizable donations have in the past, and continue to be, the probable result of an infatuation with the idea of student labor on the part of donors. Precisely when such gifts are indeed the result of a donor's interest in the labor program, it is difficult if not impossible to determine. A final complicating factor in computing cost/benefit relates to the money the College receives from the Federal Government as part of the work/study program to aid economically disadvantaged students. A high percentage of the students at Berea qualify under the Federal guidelines for the plan and, as a result, some of the payments made to students for their labor come from this program. This kind of subsidy also affects any balance sheet which is attempted in computing the cost of the labor program. It is obvious that some of the figures could be estimated, but the fact is that no one at Berea has yet done it. Like most of the other labor/
learning schools, not much priority has been given to this task and specific results will have to await the time when the school's need for this information is greater.

In conclusion, Berea College can be seen to represent a certain pinnacle, a sort of super-institutionalized manifestation of a labor/learning school. The program has evolved into a well-organized system larger and more diverse than any in the nation. The costs of this size and diversity have been, to date, at the expense of a widespread integration of the job and classroom; to be sure, many of the jobs are closely linked to the students' majors (those whose jobs are in the academic departments are the most obvious examples), but in the large majority, the linkages are less clear. A study was done in 1961 by a member of the faculty in which a questionnaire was distributed to the students to obtain their personal evaluations of the success and failures of the labor program in meeting the educational aims as outlined by the faculty.  

Prior to that time, the faculty had established nine education objectives for the labor program, ranging from the development of creativity, good character, work habits, valuable hobbies, a sense of beauty and accomplishment to enabling students to more effectively make the transition from a "relatively isolated rural community to

---

modern industrial society." The seventh aim set out by the faculty was "to supplement and enhance the academic program by coordinating classroom activities with work experience when such is possible." The findings of the 1961 study are notable in that the unification of classroom and work activities placed neither at the top nor bottom of the students' hierarchy of values. Teaching the dignity of labor, developing good character, habits and attitudes and providing tangible evidence of growth and accomplishment were rated by the students as being those aims which they believed were being achieved by the labor program. Those aims which they felt were not being achieved included aiding in the rural-industrial adjustment and, surprisingly, the development of creativity and hobbies. Unification of academic and labor responsibilities, development of an appreciation of quality and beauty, and providing vocational guidance and experience with various options were placed in the middle range by the students.

Further, when the population was broken down by job and academic major, it was found that, in general, those who found the labor program to be meeting most of its objectives tended to cluster in the following categories:

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9 Bobbitt, op. cit., p. 23.
10 Ibid, p. 28.
11 Bobbitt, op. cit., p. 73.
1) Those students doing instructional work as labor

2) Students doing other related work in academic departments

3) Students majoring in art, industrial arts, music or physical education

Those who felt that the labor program's aims were not meeting the aims set out by the faculty tended to cluster around the categories below:

1) Students doing janitorial work

2) Students who worked in campus service departments

3) Students whose academic majors were in history, political science, math, philosophy and religion, physics, geology and romance languages

4) Students who worked with some of the Deans' offices, the laundry, creamery and dairy, in the garden and in guidance.¹²

It is clear that, with the exception of the specific academic subjects mentioned in item four above, those most satisfied with the labor program held jobs similar to their academic majors which naturally tend to lend themselves to mutual reinforcement. Those performing the more menial and repetitive tasks are obviously less sanguine about the success of the labor program in meeting the objectives established by the faculty. It is also clear that, at least in the students' opinions, the labor program was good for developing character and work habits, teaching the dignity of labor and providing a sense of accomplishment. These were the most clearly achieved objectives at that time.

¹²Ibid.
Little else has been done to gather systematic data since this study was completed over ten years ago. What is needed most, and what Berea is in an excellent position to provide, is a long-range follow-up study which would measure the impact the labor program may have on graduates. As with most other labor programs which have existed throughout the history of the concept, little has been done to gather follow-up information which would indicate how, over time, working in a labor/learning institution affected the lives of the students. More is needed than the occasional evaluation done with the current crop of students and it is surprising that so much continues to be based, it seems, on intuitive hunches. Hopefully, the reforms instituted by the present Dean of Labor will pave the way the implementation of a "frill," such as a follow-up study which might determine the impact of what is being done by the program. For many years, Berea has led the way in labor/learning institutions and a contribution with this long-overdue study would be welcome.

In summary, it is evident that Berea operates a very extensive labor program which is a direct result of the size of the institution. The creation of a full-time position of Dean of Labor who, with the staff assistance from several students, oversees all aspects of a labor program for one thousand four-hundred students working in over ninety different jobs, represents a marked contrast from the school's relatively humble origins. One of Berea's most important contributions to the manual labor concept is the development of functional job levels, as a first step in the implementation of a program of grade
levels. These grade levels become the basis for determining different rates of remuneration for varying degrees of responsibility. The system, though somewhat complex, enables the school to reward students differentially for initiative and good work performance. In addition, students with greater financial need can earn extra money through a system of labor credits which, when coupled with the incentive aspects of the program, permit the student with financial need who is also willing to take responsibility to obtain greater support from the school's program. These features of the program, together with the formal work contracts which are negotiated each semester, lend an off-campus, "real-world" credibility to the labor performed by the student.

As it has been shown, the main issues at Berea are centered around making the work program stronger, by finding useful work for students, and in training and opportunities for discussion of problems and philosophy. Underemployment could become a serious problem in a school as large as Berea. A possible solution could be community work in service and tutorial projects, but there will be limits to expansion in these areas. The strongest work program will be one containing as much useful campus-based work as possible, so students will never question the importance or utility of their efforts. Improvements in the training available for many of the skills and the creation of a time when work-related issues and rationale for the program can be discussed are steps which Berea could take to strengthen the labor program. These problems, associated with school
size and the present role of the manual labor program in relation to the academic objectives of the College, might be overcome in ways which could make an important addition to the school's already well-known accomplishments in student labor programs.
Warren Wilson College

Introduction

Warren Wilson College represents the best combination of smallness and diversity of the three cases in this study. There are several dimensions to be noted in this case.

Some of the most straightforward information concerning finance is available from this school's manual labor program. The value of a student's labor is determined each year by estimating the minimum hourly wage that will be set by the Federal Government and multiplying it by the student's fifteen hour work week. This provides the school with a figure which enables administrators to reduce each student's tuition by over one-third. Further incentives are available to interested students who wish to work for the school during Christmas, Easter and summer vacations, which bring the total amount which is possible for each student to earn to nearly two-thirds of the total tuition. The College cannot afford to make these significant reductions in tuition without being sure that useful and necessary work is being performed in return, and the result is a very diversified list of jobs with some notable levels of responsibility given to students.

The type of work undertaken by students at Warren Wilson seems to reflect this high level of responsibility. Students are visible everywhere, working as part of paint crews, doing major landscape work, driving trash and laundry trucks, engaged in remodelling a
three-story dormitory, dismantling an old house on the campus to make room for new construction, manning the power plant and the campus fire department, doing electrical wiring for new faculty housing—all in addition to the more standard maintenance jobs on the campus and the farm as well as administrative work in the offices and departments which are a part of most manual labor institutions. With so much necessary work being performed by students, it is no surprise that the College takes the students' responsibilities to the program very seriously. A fairly extensive system of recording work performance exists, with graded evaluations being completed each semester which become part of the student's permanent record at the school. These bi-annual evaluations also trigger periodic reviews and discussions of the work between student and supervisor, a process which should be part of every work program in any self-help school.

The faculty work month and the required student service project are two other unique features of the school. Each faculty member is hired on a ten-month contract for nine months of teaching, the remaining month being a required period in which faculty are asked to supervise student work activities. A better example of a close link between academic faculty and a manual labor program would be hard to find. The service project is equally unique: all students are required to perform some type of community service in a local hospital, through private tutoring of students needing extra help in a subject, camp counseling or working with a scout troop, before the student
begins his or her senior year. Both features of Warren Wilson have obvious relevance for self-help schools.

Finally, special note should be made of the issues facing the school as it begins its campaign for financial support from new sources. The uniqueness of the work program at the College is one of its most attractive features, both to prospective donors and students. There may be some question as to whether the work program is as strong today as it was several years ago, when more hours of work per week were required of each student and the more vocational nature of the school meant more emphasis and closer relationships between the work program and the classroom. However, the need for strengthening the program possibly could not be greater: students may become increasingly interested in experiential learning programs and the more skills and training the College can successfully deliver to students, the higher "drawing potential" the school will have. If the school can use its Core Program to create a place where occasional dialogues could take place about the nature and meaning of work as a part of culture, a significant and needed contribution to the development of manual labor schools could be made—one which prospective donors might find hard to resist.

The specific dimensions of Warren Wilson College which have the most utility and interest for self-help schools anywhere are the method of payment and incentives to students for their labor (in the form of straight tuition reductions), the level of responsibility
given to students in numerous jobs, and the unique features of the faculty work month and required student service project.
Warren Wilson College
Swannanoa, North Carolina

In the 19th century the Presbyterian Church began establishing missions throughout the world. Churches and schools were set up in Africa, Asia and Latin America and, as part of the effort, similar projects were undertaken within the continental borders of the United States. The regions of the Southern Mountains were of special interest to the United Board of Missions, which supervised these endeavors; twenty-five day and boarding schools were established in this area, many of which had some form of work program as part of their activities to enable more children to attend. A girls' school, the Dorland-Bell School for Girls founded in 1893 in Hot Springs, North Carolina, and a boys' school, the Ashville Farm School founded in 1894 in Swannanoa, played separate but cooperative roles in opening avenues of education for nearly half a century. In 1942, the decision was made to unify these two institutions in a school which would offer not only four years of high school, but two years of college courses as well. Thus emerged Warren Wilson College, a "new" school which was already a well-established part of the educational landscape.13

The school is located in the rolling hills of Swannanoa, North Carolina, just eight miles east of Asheville. The setting is idyllic;

the college is nestled against a hillside on a thousand acres of wooded and open farmland in the midst of the Blue Ridge Mountains. Although the school is a four-year college now, it still retains the feel of earlier, junior college days. In a time when sprawling "multiversities" number their student bodies in the tens of thousands, the sense of intimacy is at Warren Wilson refreshing.

The Students

Originally, nearly all of the student body came from the Appalachian region. As secondary boarding schools, Warren Wilson's two predecessors drew primarily from the local area. The changes began to come in the 1940's and 1950's shortly after the junior college was organized, and they were due, in part, to the increasing numbers of high schools being built (which decreased the need for privately sponsored secondary schools), and partially to the interest of young people in other parts of America for higher education at a cost which they could afford. The last high school class was graduated from Warren Wilson in 1957, and the college was strictly a junior college for eight years. In 1965, the most recent metamorphosis took place, with the addition of two more years of study and elevation of the school to a full-fledged four-year liberal arts college.

Students are still attracted to Warren Wilson because of the school's relatively low cost, but they now come from over twenty
states and, somewhat surprisingly, from nearly thirty foreign countries. The large foreign student population (twenty-nine percent of the 1972-1973 student body) is largely the result of the school's association with the Presbyterian Church which still operates missions throughout the world and whose staffs act as an informal recruiting network for Warren Wilson and other Presbyterian Church-affiliated schools in the United States. The school is presently suffering from under-enrollment, however, and its approximately three hundred seventy-five students still leave nearly twenty-five percent of the available dormitory space vacant. Like every other institution of higher education in America today, the school is feeling the pinch of the current economic deceleration. Three years ago the school was notified by the United Board of Missions that it no longer could continue the substantial level of financial support which it had provided in the past, and since that time the school's main task has been to identify other sources of support. Enrollment may also be suffering slightly from the present questioning of the purposes and utility of any degree in higher education, but at this point the effects of this phenomenon are uncertain. What may be more certain is that the true test of the uniqueness of Warren Wilson's labor program and its power to attract students for educational and financial reasons could be just beginning; the "frontier" may still exist for private institutions as small as this one and the challenges will be no less real than those encountered by labor/learning schools over a century ago.
The Work Program

"The College includes in its educational concerns more than intellectual training because man does not live by reasoning alone" states the catalogue, and the school's motto, "the dignity of manual labor" leaves little doubt as to the nature of one of the school's major objectives. 14

The rationale for the program begins with the usual goals of permitting students to put theory into practice, organize their time and make decisions, providing opportunities to learn to work with people from different backgrounds, as well as providing opportunities for achievement and personal satisfaction. However, a new brochure about the work program takes the rationale a step further:

The college by design is a microcosm of what you are apt to encounter following completion of your academic training....When you enter the mainstream of life, most likely you will be part of an environment where a primary focus will be on business and the professions. In contrast, at Warren Wilson College emphasis is and should be upon intellectual development. But either alone is only part of life....Not only do members of the community study together, but more than this they work together for an overriding common cause, as do citizens in any worthwhile municipality. 15

The brochure goes on to state that students can expect the work program to provide them with a "fair taste of the realities of


the world to be faced tomorrow."

For example, one will find that satisfactory employment depends first on there being an opening, then upon how many are seeking to fill it, and, finally, that the person most likely to get the first chance is the one best able to demonstrate desire and ability.

The work program clearly is aimed at providing students with a sense of community responsibility and cooperation as well as skills. How are these objectives, which seem to be found in the goals of almost every educational institution, translated into everyday behavior through the work program?

In contrast to the elaborate wage pay-scale system found at Berea, students at Warren Wilson contract to work a flat fifteen hours each week when they come to the institution. They do this, usually in three-hour blocks of time each day, either in the morning or in the afternoon, with some variation necessary for those performing specialized tasks (such as work in the boiler room where round-the-clock monitoring necessitates the creation of special shifts). In exchange for the labor, the students receive a reduction of $960 from tuition costs. The school estimates the cost of its education per student per year to be about $2,450, leaving the student with a balance of approximately $1,500 which he or she must provide. Reductions in this amount are possible through several financial aid alternatives. The student may apply for summer work with the school and receive tuition credits for $40 per week worked (with a maximum of twelve weeks of work being possible), plus room, board and opportunity to enroll in classes in the summer session. The student receives a
credit of $480 against the tuition for the following year, leaving a balance of slightly over $900 to be paid. The student may also elect to work for the school during the two of the three weeks of Christmas vacation or for a week during Spring vacation which earns another tuition credit totalling $120. Small grants and scholarships for those in special need round out the possible sources of financial support which the school provides. The basic tuition credit of $960 which all students earn in exchange of fifteen hours of work each week is arrived at by a simple computation of what the equivalent number of man-hours would cost the college each year at the minimum hourly wage set by the Federal Government. At the beginning of each year, the school estimates what the average minimum wage is likely to be over the course of the year and in multiplying this figure by the number of hours each student will work (with the exception of holiday and summer vacation periods), by the total number of students, the worth of student labor is determined. The figure, and the tuition reduction, fluctuates from year to year, depending on the minimum wage set by the United States Congress.

Of course, the linchpin in this system is the importance of the work provided by the student and there seems to be less room for make-work, especially in a school the size of Warren Wilson. If tuition credits are based on estimates of how much the College would have to pay a man from the open labor market to perform the same service, it

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follows that the school cannot afford to reduce educational costs to students for work which is not essential. Useful, necessary labor is emphasized strongly in all of the descriptions of the work program, and it is more than apparent to the outsider making a first visit to the campus. Students dressed in workclothes seem to be everywhere on campus, performing functions one is more accustomed to seeing performed by hired workmen. Paint crews set off each day to continue work in remodelling the entire first floor of a three-story dormitory; others rendezvous twice each day in front of the dining hall for a short ride in a pickup truck to the school farm; still others work three-hour shifts in the administrative offices, grounds and landscaping crew. The school employs students to operate an auto shop for vehicle maintenance; to drive buses; haul trash, lumber and laundry using trucks; and, when the occasion warrants, operate bulldozers and loaders. In addition to the more commonly seen student cleaners, sweepers and servers found in many colleges today, students at Warren Wilson serve as electricians and linemen. They are "responsible for repairs, maintenance, overhaul and new installations of all campus electrical equipment which includes a primary power distribution system." They operate the oil-fired heating plant which is much tamer work today, as compared with ten years ago when students hauled coal from the railhead in Swannanoa. They attend to most of the school's plumbing and carpentry needs; at this writing, students are in the process of dismantling a house on the campus to make room for new
construction. While the bulk of the students are employed by the kitchen, the farm, campus crew and in clerical positions, there are over thirty major work categories from which to choose. Even the campus fire department, which boasts two aging but still serviceable trucks, is headed by a student and staffed by student volunteers, both male and female.

The work program is supervised by a full-time Director who, with one student staff member, oversees the day-to-day administration of student labor. The key to student assignment to jobs seems to rest with Warren Wilson's views of the realities of the outside world. Students apply each semester for a work assignment and in the cases involving a change in occupation, "Whether or not he gets that particular job depends upon the existence of a vacancy, and how many people apply. Often, it is a life situation; those with proven ability get the first chance at a particular job." 17

"Proven ability" is reflected most concretely in a work evaluation record which is maintained in the Work Program Office by the program's Director. Each semester supervisors are requested to file what amounts to a report card for each student. A sample card is reproduced as follows:

Each of the six factors in the middle of the card are marked "Satisfactory" (S) or "Unsatisfactory" (U) and comments are added about the nature of the job or the student's performance in the space provided. There are five grades which are used to rate the student in the categories of "Effort" and "Achievement": "High," "High Minus," "Normal Plus," "Normal" and "Normal Minus." The issuance of a Normal Minus at the end of a semester has to be preceded by a written warning to the student which is an indication to him and a signal to the work program Director that a behavior change is necessary to avoid accumulating points which eventually could lead to Labor Probation. Warning (1) and Firing (2) points are issued for repeated lateness, unexcused absences and consistently unsatisfactory job performance. A Vacation Penalty costs the student two points, and is issued when he fails to complete work obligations immediately prior to or following school vacations without permission of the Dean of Student Affairs.
Breaking a Vacation Work Contract is yet another violation of work rules and one for which students may be issued points (2). The work obligation of each student is for three hours per day every day school is in session. If a student wishes to stay on-campus during a vacation, a special contract must be agreed to, for three hours of work each day the student intends to use College facilities. Finally, if a student receives a "Normal Minus" at the end of the semester, one point is issued. If a student accumulates four Work Probation Points at the end of his first two semesters, or (in the case of a student who has been on-campus a semester or more) if three points are accumulated in two consecutive semesters, the student is placed on Work Probation. "Work Pro" last a minimum of one semester and, if any additional points are added to the student's total during this time, he may be recommended for Suspension. Warren Wilson College takes students' obligations to its work program very seriously.

When the supervisor has completed the card, he is obligated to review his ratings and comments with the student, who initials the card, indicating that he has seen it and has discussed its contents with the supervisor. Aside from the obvious contract responsibility and enforcement aspects of this system, a major purpose is to ensure that student and supervisor communicate on a regular basis about the nature of the work and the student's performance. The process of

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18 Work Program Policies, memorandum to staff and students from the Work Program Office, October 13, 1972.
initialling does not mean that the student agrees with the supervisor's assessment of the situation, but it indicates to the Work Program Director that the two have discussed the situation. These grade cards are turned in to the Work Program Office, which forwards them to the Registrar. In this way, a student's work performance becomes part of his official record at the school.

The importance and integration of the work program is further emphasized in procedures set up for the administration of the program by the Work Program Director and the Work Council. The latter is a representative body made up of students, institutional staff and work supervisors which oversees the assignment of work, matters of discipline, training, research and evaluation, grading, safety, relations with academic staff—in short, all of the dimensions of the Work Program. The Work Council includes several subcommittees which specialize in areas such as program development, job assignment and judicial review. For example, the latter reviews all disciplinary actions which relate to the work program and makes decisions on appeals to actions of supervisors. All of the committee's decisions are subject to the review of the full Council and the Council itself is ultimately responsible to the College President, its Dean and the Business Manager. The Director of the Work Program chairs this Council and is also directly responsible to the administration of the College for the administration of the program.

A final point should be mentioned in connection with the labor program at Warren Wilson, one which makes the school that much more
unique in the family of labor/learning institutions. It concerns
the requirement that all faculty work one month for the institution,
in addition to their teaching responsibilities. Faculty appointments
are made on a ten-month basis, nine of which are fulfilled in much
the same fashion as in any other institution of higher learning.
The tenth month must be spent in supervising students and assisting
with a labor project, from working with a paint crew, to paperwork
for the College administrative offices, to work with the farm or
auto-mechanics shop. While the effects of such a requirement are
difficult to measure, there is no question that this policy brings
faculty and students closer together. What appears to be a typical
flight of brochure rhetoric, "...community participation by all,"
is, in fact, no exaggeration. The practice is one of the most
unique in higher education.  

19 Another unique feature of the College which has no direct
relationship to the work program, but which could be part of any self-
help school, is the Service Project requirement. All students are
required to complete a project of service to others before entering
the Senior year. Tutoring, camp counseling, scout troop leadership,
working with the handicapped or in a hospital are some typical
examples of the kind of projects which are undertaken. A proposal
must be submitted and approved in advance by a Service Project
Committee (composed of faculty and students). During the project,
the student consults with and is advised by a counselor, keeps a log
of hours (forty to sixty hours per project is typical), keeps a
daily diary and, at the conclusion, files a final report. An evalua-
tion is also filed by the student's supervisor from the project. All
reports become part of the student's record in the Dean's Office.
Issues

As with the other two cases in this study, it must be emphasized that no attempt is being made here to construct a comprehensive evaluation of the Warren Wilson work program. The impressions, observations and recommendations which follow were garnered in a short visit, far too brief for an attempt to assemble and interview a representative cross-section of the community. Most observations and recommendations which follow are already known to many members of the Warren Wilson community who are intimately aware of the problems and prospects of the program at Warren Wilson.

The cover of the new brochure describing the College's Work Program includes the familiar passage from Robert Frost's "The Road Not Taken:"

Two roads diverged in a wood, and I --
I took the one less travelled by,
And that has made all the difference.

This passage may have as much meaning for the work program at Warren Wilson College as it does for the prospective students for whom the brochure was written. The school is at a crossroads of its own; it is in a state of change and some of its most challenging years may yet be ahead.

Back in the days when the College was still making the transition from its previous incarnation as the Ashville Farm School, the work program played a much greater role in the life of the school than it does today. Most of the teaching staff were as strong in
manual skills as they were in an academic discipline. As a vocational high school, there naturally was a demand for teachers who possessed a high degree of skill; and for many years following the transition of the school to a junior college, the emphasis on manual work and trades continued to be high. Twenty-five years ago the students worked one-half time (twenty hours a week), and the remaining time was spent in class or study. In many cases, academic work and manual labor were closely unified.

For example, when a new facility was needed for science, the physics class started with the needs as anticipated by the faculty and determined the number of foot-candles of illumination needed to light the rooms and hallways adequately. The information and recommendations were passed along to the vocational electricity class which determined the number of services needed, designed wiring and supplied other technical information necessary for the installations. The wiring and fixtures were then set in place by the electrician and line crew. The linkages between classroom and labor job still exist at Warren Wilson today, but they may not be as clear, and the trend may be moving slightly in the other direction.

Three events seem to contribute significantly to the change. The discontinuance of the high school portion of Warren Wilson's program because of the increase of public secondary schools in North Carolina removed some of the vocational thrust from the institution. In addition, the very practical problem of reaping fewer benefits from the investment in training students comes into play;
formerly, the students might stay with the institution for five to six years (ninth grade through sophomore year of college), a substantial time for the school to obtain a return on its investment of training and education.

A second possible threat to the de-emphasis of labor is the reduction of the number of hours each student worked per week from twenty to fifteen. While it may seem that this is not a drastic change, the psychological impact has had some effect on the status of the students' time; the ratio was now one-third of the students' time for manual labor, two-thirds for academic pursuits.

Finally, the event with probably the greatest impact on the linkages between manual labor and academic work was the move by the College to become a four-year institution. To satisfy accreditation standards, it was necessary to "upgrade" the faculty with a number of new staff members who possessed the academic qualifications necessary to support a four-year institution. Some of those newly hired were attracted to the College precisely for its unique labor/learning qualities. Others, however, were less interested in the work program, holding a priority instead for the more traditional academic pursuits. As with any "newly arrived" institution, establishing an academic reputation has been a primary objective, and this has further drained some emphasis from the work program. No one of these three work events (the discontinuance of the high school, the new academic work to manual work ratio, the move to four-year status) could singly be said to be responsible for the beginning of
a possible change in the status of the labor program. Taken together, however, the cumulative effect may be significant.

A second major problem area in the Warren Wilson work program is centered around the need to examine the educational value of many of the jobs which now exist, as well as some of the purposes which underlie the program. Some of the students evidently feel that the College is too ready to place them in jobs in which they already have experience and skill, at times leaving the student little opportunity to get into a new area. Opinions on this issue range considerably, however, for some students felt that if one were interested enough in another job to pursue it vigorously, opportunities could be found to enable the student to get into the position he desired. A more common complaint was that of the lack of training and meaningful involvement of the supervisors. While many of the supervisors are dedicated and skilled in their work, it seems that some know too little about the jobs they are supposed to be directing. In a few cases, the students know far more about the job and find themselves in the awkward and frustrating position of having to educate their "superiors." Although this process could become a fine example of students teaching teachers, more reciprocity on the part of supervisors and encouragement from the College would be necessary to ensure any success. As the College becomes more widely known for its work program and, as more and more students become interested in the school for the skill training they assume to be available,
the need to upgrade and make more systematic the educational component will become more urgent.

There was also agreement of the need for the College to define new work roles for students. Roughly, the issue can be characterized by those who would define work as activities which produce only the "glow" of perspiration. So far, those favoring sweat (manual labor, basically those tasks of maintenance and construction traditionally associated with labor/learning institutions) have prevailed over those favoring an increase in jobs which require less physical exertion (clerical/laboratory assistant work, use of foreign students to teach language tutorials, black students to assist with Black Studies courses, other positions on the yearbook, school paper, etc.). Expansion of job roles would add much to the diversity of the School as well as aid in reducing any make-work which might presently be a problem. The age-old problem of high vs. low-status jobs may arise if and when the College expands its definition of work. But this kind of challenge is precisely what labor/learning institutions should be confronting; there is ample precedent in utopian communities of the past as well as in present communal groups such as the Israeli kibbutz, various collective schemes in many of the socialist nations, and much that is being learned in the present swing to communal experimentation across the United States.

Because of another special feature of the school, the Core Program, Warren Wilson is uniquely equipped to initiate more study into the role work plays in various societies. Essentially, the Core is a
set of courses which are required of all Freshmen, Sophomores and Juniors and at each of these levels there already exists at least one course which might serve as a vehicle for the exploration and discussion of some aspect of work. In the Freshman year such a topic might be included in a portion of the one-semester course, "Man's Social Issues." The Sophomore year includes one semester of "International Studies" (which could, at minimum, include independent projects about labor, work ethics and the value ascribed to work in other cultures). The Junior year requires one semester of "Mankind and the Individual" which might be the most appropriate of all of the courses for a special focus on the meaning of labor.

The need for this kind of conceptualization is no more urgent at Warren Wilson College than at Berea College or the Putney School, but the opportunity to begin such a task as part of formal coursework might be a little greater at the moment at Warren Wilson. A foreign student, a kid from Baltimore and another from the Blue Ridge Mountains come to the work program with widely differing backgrounds and perspectives. The foreign student frequently comes from a secondary educational experience which has taught him to expect to have to do very little in the way of manual labor. He represents the educational elite of his nation; he has worked his way up through a highly competitive examination system often to escape the style of life which manual labor represents. The student from Appalachia may have some very similar attitudes about the work program; as one faculty member at Warren Wilson pointed out, mountain women have been
"liberated" for years—in the sense that they have shared equally much of the hard physical labor with the men of the household. Young men and women coming from this background are understandably somewhat less enthusiastic about portions of the manual labor program. The primary motivation for this type of student may be the chance to obtain an education at a relatively low cost; financial considerations come before any love of manual labor. Finally, the "kid from Baltimore" (or New York, or any of the many urban/suburban megalopolises which are common in many parts of America) may be interested in the school because of a romantic desire to "return to the land." His needs (especially if his interest in working with his hands is superficial) are going to be unique and he will need a different kind of support to help make the educational component of the work program worthwhile.

It must be emphasized that initially only portions of the Core program need be utilized to experiment with the creation of some useful periods of discussion about the work program; a full-scale semester-long course might be an overall objective but one which it would be wise to develop over several years of short, modularized courses which might be used to pilot test materials. These sessions could be labor as well as serve as a vehicle for the discussion of personal problems and reactions to day-to-day experiences on the job.

Such a set of "modules" might be combined with an in-service training program for supervisors, another suggestion mentioned several times by staff and students at the College. The sessions which might
be conducted as part of the Core would naturally lend themselves to better communication among supervisors and, in general, might do much to reinforce the educational aspect of their role. For example, the school has found it necessary to hire some supervisors who do not live on-campus and who are employed on a normal forty-hour work week contract. This situation limits the amount of informal contact these people have with their students and colleagues, which de facto places them in a somewhat second-class status. Participation in special modules which focus on the labor program and other activities which could grow out of these sessions might do much to enhance their membership in the community.

Lastly, it should be noted that the thrust of the changes suggested above need not be limited solely to activities which focus on conceptualization and making "more academic" aspects of the work. A very practical need mentioned by several of those interviewed was for more on-the-job skill training. In one instance, a supervisor in the business office who oversees the work of four to five students explained that at present the more experienced students do much of the training of the new ones. To an extent this is acceptable, but the press to get the work out prevents her from more directly supervising the orientation and education of her students. As she points out, students may have to work in the office for a considerable period of time before they have any inkling of how one part of the operation relates to another. The problem is compounded by the students' class schedules which cause their availability for work to fluctuate; at
times a task begun by one student will have to be finished by a second, or even a third and new students have difficulty for some time in gaining any perspective on the entire operation. At present there seems to be no mechanism for this supervisor to take either a portion of the students' scheduled work time or create additional time each week to conduct formal sessions on the nature of the work of the business office, general office practice and administration, interpersonal relations and provide the support which international students sometimes require in adjusting to a new culture's way of managing an institution. Inclusion of time for formal instruction in the students' work week could be an important step in improving the general condition of the educational component of the work program.

In conclusion, it is clear that the meaning of the labor program at Warren Wilson College has been affected in the transition by the institution from a vocational high school to a junior college, the termination of the high school program and the final move to a four-year liberal arts college. Although the work program is not as strong as it was in previous days, it is clear that programs might regain much of its initial strength with the adoption of some of the above suggestions for the educational component.

The school's present contribution to manual labor programs rests primarily in the extent to which the institution still relies on students to perform basic tasks. As has been shown, the College represents
a good combination of small size and diversity in the work program so that a sense of community is retained, while options for a wide choice in jobs continue to be a feature. The types of jobs performed by students are impressive; in the past students have carried out much of the construction of College buildings, operated an extensive farm program, maintained roads and done major landscaping of the school's grounds. Today, they are manning paint and electrical crews, remodelling a dormitory, overseeing the campus power plant, fire department and vehicle maintenance shop, in addition to the more common tasks found in labor programs. The accomplishments are impressive and there is little doubt that these tasks are essential to the school's functioning.

The system of payment in exchange for labor is straightforward. The value of student labor is set at a level corresponding with the Federal minimum wage which is multiplied by the number of hours each student will work during the course of a year. This produces a figure which enables the College to reduce a student's tuition by one-third. Additional money may be earned during vacation periods which enable a student to earn a total of nearly two-thirds of the yearly tuition. There is little doubt that the manual labor program creates opportunities for significant cost savings by students as well as the school. Evaluations of student work performance are made regularly and become part of the school's overall recommendation for students following graduation.
Finally, the faculty-work-month feature is a unique idea among the cases considered in this study. This aspect of the College's program is an excellent example of an attempt to ensure closer involvement on the part of faculty. A manual labor program in an academic setting is usually vulnerable to half-hearted support from some on the faculty who have other priorities. Demonstration of skills and some statement of commitment to a work program responsibility before hiring, as in the case of Warren Wilson, is one way of strengthening the manual labor portion of the program and lessening divided loyalties which sometimes develop. While such a program might be difficult to duplicate in other settings, perhaps some modification would be possible which would permit other schools' staff and faculty members to participate with more responsibility in portions of their work programs.

Warren Wilson College has just begun a fund-raising campaign to raise five million dollars for an endowment to replace the grants which will no longer be made to the school, due to a change in policy by the National Presbyterian Church. The College's financial base, like the work program, is at a crossroads and the road taken by the school on each of these issues is crucial. The decisions may, in fact, be interrelated; a strengthening of the work program may be one key to filling many of the presently vacant dormitory rooms, a problem facing Warren Wilson and many other colleges today—and one with obvious implications for improving the financial base of the
school. The work program at Warren Wilson College might once again play an absolutely essential role in the survival of the institution, just as labor programs were indispensable in the days of the frontier before industrialization. The College could be ready to contribute a new chapter to the literature of labor/learning programs. Only time will provide the answer.
CHAPTER IV

THE POLYTECHNIC AND THE BRIGADE:
TWO SELF-HELP PROGRAMS IN AFRICA

Education has played an important role in the history of African development. Generally traditional in content and European in orientation, schooling was regarded as a means of selecting the most capable Africans to assist in the operation of the colony. The consequences, both before and after African nations achieved independence, bear directly on the current interest in alternatives to the present system.

This chapter begins by establishing an educational and historical context and follows with a consideration of the Harambee school program, a relatively recent national effort by the Government of Kenya to increase the number of academic secondary schools in the country largely through self-help financing schemes. It will then focus on two programs which are also currently underway in Africa, the Village Polytechnic program in Kenya and the Brigade program in Botswana. The chapter will conclude with a summary of the similarities and differences among these programs, some of which will resemble those found in the preceding chapter, and others which are unique to developing nations.
The literature of the international education community is replete with calls for increased external assistance for developing nations. From U.N.E.S.C.O. bulletins to recent reports on foreign assistance, the recommendations almost always begin or end with a call for larger amounts of aid to meet growing needs. These recommendations are, no doubt, sincere attempts by those having influence over some of the world's development resources to loosen pursestrings which would enable developing countries to better meet their needs. However, the likelihood of vast increases in the grants from donor nations which would begin to match the needs of developing countries is slim, and it becomes increasingly apparent that these nations will have to look to themselves for additional expansion in education. Not surprisingly, there are strict limits within which internal expansion can take place.

The percentage of the gross national product now expended in most nations in Africa for education is extraordinary. The fifties and early sixties were the years of "education and nation-building," and the nations of the developing world answered the call with heavy financial commitments geared to produce rapid expansion in enrollments.

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The need for large numbers of graduates to fill administrative positions vacated by departing colonialists as nations achieved independence could not continue indefinitely; limits on trained teachers and administrative personnel to support expansion eventually threatened educational quality, as more and more marginally skilled people were employed to enable governments to meet the increased demand. However, a drop in quality is only a part of the problem created by nation-building efforts through education.

Increasingly, critics of educational systems in African nations have been training their guns on the suitability of the structure and content of present elementary and secondary schools. The cry for educational "relevance" is being heard throughout the developing world and is parallel to the educational turmoil experienced by the more industrialized nations. There seems to be agreement among most scholars of colonial educational policy that the programs developed in African colonies were specifically created to train a limited number of administrators to assist in the day-to-day operation of local government. Colonial educational policy was not one for education of the masses; it was designed for the talented few who, by virtue of their ability to obtain high marks on standardized exams, as well as their good fortune in selecting parents with the right mix of money (for school fees) and values (making education a priority), were able

to become part of the governing elite. Since the colonies were seldom considered in any context other than through a strong link to the "mother country," education was focussed to maintain an effective superordinate/subordinate relationship between the colonizers and the colonized.

It has become fashionable over the years to condemn the rigidity of the educational establishment bequeathed to the colonies. The absurdities of importing British earthworms for African children to study in preparation for the Cambridge exam and the time devoted for study in French colonies of "Our Ancestors, the Gauls" have been consigned to their proper place in cultural imperialism's hall of infamy. The irony, indeed tragedy, is that so much breastbeating has produced so little significant change. As modern day African social critics have observed, developing nations, though now independent, are still suffering the effects of a colonization of the mind. A governing elite, newly enfranchised by "the system" are little disposed to initiate radical changes, even if the present system contains some serious defects.

It would be unfair to generalize about all administrators and political leaders in African countries as insensitive and unwilling to make the necessary changes to enable more of their people to obtain a better education. There are many exceptional men who, contrary to

conventional wisdom and popular demand, advocated sweeping revisions in the colonial educational system. Suggestions from teachers and administrators scattered throughout memoranda and reports prepared for the colonial administration questioned the practicality and wisdom of so completely divorcing the education of local youth from their own heritage. Over the years, succeeding reports embellished these ideas with specific suggestions from a few African and European leaders who saw the urgency in creating courses in farming, hygiene and home crafts which would strengthen pupils' identification with their own culture and slow down the already obvious alienation which separated the students from their own roots.

These voices of warning and protest generally seem to have been ignored in making colonial educational policy. The tide ran heavy with the imperial powers and only a few, on occasion, were brave enough to swim against it. Usually, a combination of forces conspired to perpetuate the educational program essentially as it had been established by the colonialists. Only recently have indications begun to appear which signal that pursuit of the old policy without some modifications could lead to troublesome political consequences for some of the newly independent nations.

However, in spite of any new hints of interest in reform of the educational system left to the former colonies, much of the curriculum

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continues to be imported from abroad, because the skilled manpower needed to begin the process of reshaping is in short supply; new curriculum cannot be inaugurated without corresponding modification of the exams which dominate the final years of students' preparation. Until recently, there was not a large enough supply of trained people to enable former colonies to grade yearly exams in their present form, much less create new exams to replace the old. Added to this was the initial perception of many that the European degree was necessary currency in the international market of ideas, and that its abandonment would mean precipitous withdrawal from a well-established, worldwide credentialing network. The resistance by the new elite to dumping this system had, as a corollary, a growing desire within large segments of the population for the status obviously conferred to those with a European education. Attempts to "localize" the curriculum were usually met by strong resistance from parents and students; from their perspective, they had no interest in a watered-down, second-rate education—one which could relegate them to second-class mediocrity in a world dominated by a Western classical concept of education.

One consequence of the curricular rigidity of colonial educational systems has been the increased interest in "non-formal" education. Possibly triggered by some hard-nosed analysis at the close of the United Nations first "Development Decade," non-formal education grew out of an obvious need for re-assessment of educational priorities. Of those African students currently admitted to primary school, only a fraction complete six years of study and successfully pass the
secondary school entrance examinations. Hundreds of thousands of African pupils each year are denied further education simply because there are no places at the secondary level. Thousands of others never complete primary school and, for a variety of reasons, drop out after only two or three years of education. Uncounted millions have yet to experience any formal education at all; lack of school fees mixed with geographic isolation and lack of parental encouragement seem to be the major contributing factors in this situation. For all of these reasons, interest has grown in devising programs for primary school leavers as well as those who have had no formal education, thus providing the present momentum for the interest in non-formal education in international education circles.

In summary, education was initially viewed by colonial governments as a means of training native administrators to assist in the governance of the colony. The systems established by the colonial powers were essentially elitist and pyramidal; they were not intended to absorb the great bulk of the population, but were aimed at sorting out a minority—the best pupils—who would be groomed as leaders for their society. The "democratizing" influence on the general populace during the struggles for independence and its eventual achievement had led to greater demands for access to education. However, present educational systems in most developing countries are incapable of meeting these demands, due to severe limitations on money and manpower.

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5 Coombs, op. cit.
Further, many administrators, reflecting the mood of the general public, are reluctant to change the basic nature of the educational system which was established during colonial days, fearing that standards which are now recognized internationally would be lost.

While this picture is not the same in all African nations, it can be said that it applies in general to most of them. And, given the needs, expectations and limitations of these countries, the outlook for educational expansion is not bright—unless some additional alternatives are put into effect. One of these alternatives could be a self-help, community school.

The following pages will consist of a discussion of two types of self-help programs which are now underway in Africa, the Kenyan Village Polytechnic and the Botswana Brigade program. As a background for these programs, the Harambee school program in Kenya is discussed briefly. This program was a large-scale national effort focussed on the expansion of the number of academic secondary schools in Kenya and is a direct antecedent to the Village Polytechnic. The lessons learned in this program provide an interesting contrast to both the polytechnic and the brigade.

The Harambee School Program

To some extent the village polytechnic traces its beginnings to the Harambee school movement. Building upon the same communal interest in education which fostered and supported bush schools, the Harambee
(Swahili for "let's all pull together") effort was first directed in the 1920s and 1930s to expanding the number of elementary schools. Following the Second World War the pace of elementary school construction outstripped secondary school spaces and employment opportunities. The time had come for expansion at the secondary level, and President Jomo Kenyatta called for a renewal of the Harambee program.6

The schools' self-help status were derived from the method of financing. Funds were raised by local communities organized by leaders (chiefs, religious and administrative leaders, primary school headmasters) whose primary task was to generate money from the community. The Harambee method consisted of raising enough capital to finance the school before it was built, a process which usually took several months. Occasionally, money would be eventually found to construct foundations and outside walls; frequently, months would pass before additional resources could be generated to finish the building. In spite of the delays, these schools grew in number rapidly in the ten-year period between 1957 and 1967, at which time their number was estimated to be over 350—150 over the number of government-aided secondary schools.

This method of self-help is obviously different from that which is the focus of this study; school construction in a manual labor

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6 The information for this section on Harambee schools is derived largely from J. E. Anderson's Education for Self-Reliance—The Impact of Self-Help, Institute for Development Studies, University College, Nairobi (Discussion Paper No. 67), September 1968, mimeographed.
program is a labor-intensive task which is performed in lieu of raising capital, while the Harambee program was organized precisely for the purpose of generating capital. This objective was attempted in a number of ways. One of the sources for money was through cooperative societies, many of which agreed to make annual payments to schools, based on their yearly production. Another source of financial support has been local County Councils which made useful, albeit small grants. Other ad hoc grants have, on occasion, been made by the Kenya Department of Community Development, churches, local firms and individuals, usually for a specific purpose (some new equipment, books, etc.).

As Anderson points out in his paper, this system of financing was problematic in several ways. Frequently, the more productive and financially successful farmers objected to linking co-ops to any specific obligations with Harambee schools. Grants from other sources were often small and could not be relied upon. And one of the greatest problems was maintaining morale and enthusiasm for the project. The usual government-sponsored methods (raising a long-term loan for school construction) were not possible since nearly all of the capital had to come from the community.

A second major difference between the Harambee school program and the village polytechnics is related to the focus of the program. The Harambee schools were designed to duplicate the curriculum of the government-supported secondary schools. This had obvious implications
for the curriculum and the kind of student who was attracted to the school. The schools' program tended to be a copy of the government secondary schools which followed the national syllabus designed to prepare students for the Cambridge Exam. Students who came to the Harambee school generally were those who, because of a combination of poor test scores and poverty, had not been able to gain admittance to a government secondary school. The effect of these two factors was to place the Harambee schools in the difficult position of trying to emulate the government secondary schools without the necessary support. When capital, facilities, texts, qualified teachers and students capable of doing the work were all in limited supply, it is no surprise that the schools had difficulty in matching the accomplishments of the regular government-supported secondary schools. The effect tended to stigmatize the Harambee program with second-class status.

Information based on interviews with students and their responses to pilot questionnaires corroborates the intensity of the students' interest in succeeding in the standardized national exam.7 The morale of the pupils seem to correlate directly with the quality of the instruction and organization of the schools. If the environment within the school is unsatisfactory for a significant time, admissions fall off and older students leave the school. Parental pressure builds and administrative changes are eventually made. The arrival of a new headmaster often renews community interest in a school with flagging

7Anderson, op. cit., p. 17.
morale, and the situation begins to improve. In this way, the unique community-support nature of the school acts as a self-corrective, a feature which may be an important part of any self-help schools in the early stages of development.

Two other aspects of the Harambee effort relate to manual labor schools in Africa. Anderson found that the student interest in agriculture was high, but that it should not be confused with employment in the modern sector. Almost all students expressed interest in farming, but only a few were genuinely interested in it as wage employment. The remainder viewed farming as something which should be pursued as supplementary to a job in the modern sector. Most students thought that farms were a good investment for future retirement, and consequently held agriculture as important. This interest and positive orientation to farming might be capitalized upon in any rural-based, self-help school which depends on agricultural production for a portion of its support.

A second lesson learned in the Harambee experience concerns teaching staff. Initially, most programs could only count on a small core of former primary school teachers many of whom, despite their lack of academic qualifications, were invaluable in organizing the schools because of their experience with running small schools in rural areas. Of necessity, during the early days support staff had to come from the ranks of less-qualified primary school teachers. As time passed and the size of the teacher labor pool began to increase,
secondary trained and graduate teachers became available. Help from missions and overseas volunteers have further expanded the staff manpower pool. And, one of the largest untapped resources, secondary school graduates, who each year do little while waiting months to enter the University, had yet to be explored at the writing of Anderson's report. Staff for any program which exists outside the educational system is going to be a problem in a developing country. The experience of the Harambee program demonstrates that survival is possible using limited manpower resources, and holds out the promise that with some inservice training, adequate staff could be located to support self-help efforts.

Suggestions were made to include more practical skills in the Harambee curriculum but a shortage of qualified teachers and readily available syllabuses, books and equipment forestalled any direct action. The schools' energies were expended largely on attempts to prevail over the problems in meeting the demands of the standardized national curriculum; little was left over for experimentation and innovation. It was reported, however, that at one school, a group of students had volunteered to help construct classrooms working with a local mason. This prompts Anderson to observe:

Perhaps the most enterprising work lies outside the harambee school system. This is the development of a number of "village polytechnics." So far most of these have been instigated by the Christian Council of Kenya and have received funds and staff from this source. They seek to utilize the harambee school spirit, but concentrate on providing courses in rural skills: masonry, carpentry,
agriculture, backing these up with basic language and mathematics courses oriented to rural life and commercial practice. The intention is not to aim directly at permanent wage employment but to help students play a more practical part in rural life by being able to utilize their own or their family's resources more fully and to fit more usefully into the casual contracting pattern and cooperative projects through which most rural development takes place.\footnote{Anderson, \textit{op. cit.}, p. 24.}

The polytechnic seems to have been a natural outgrowth of the Harambee program. There are some obvious similarities but there are also some important differences. Like the Harambee schools, the polytechnic is community-based and attempts to draw most of its support from the local area. Unlike the Harambee program, however, the polytechnic is not tied to a national syllabus or examination system. The program is free to teach the subjects which generate the most interest and are deemed the most useful to the community, using methods and instructors which are the appropriate for the task. The developmental power of the program comes from its employment objectives: the village polytechnic seeks to improve the lives of rural people by stemming the migration of youth to the cities. The program attempts to develop needed skills within each village community so that a new level of independence might be achieved in rural areas. Just how such a program is organized and the extent to which it achieves its objectives is the subject of the following pages.
The Village Polytechnic

The beginnings of village polytechnics (V.P.s) took place in 1966 when church groups in rural villages became increasingly concerned about the educational and career problems of local school leavers. Cast out of the school system by the secondary school placement exam, or forced to leave secondary school by stiff competition for which they were unprepared, these ex-students have little education, experience or skill which would enable them to hold even part-time jobs. The only alternative was to return to the family farm and assist with crop production, a job to which they could contribute little but general labor.

In 1970, approximately twenty polytechnics had been organized, a gradual but significant increase over the four-year period since their creation.9

9Because much of the information on village polytechnics is still limited, this portion of the study is derived from three principal sources:


The goals of the polytechnics are to

1) provide young people with skills and knowledge, designed to help them find worthwhile occupations in rural areas

2) bring the harambee drive for post primary education more closely into line with basic rural development needs, by offering an alternative to, or at least some adaptation to, the largely academic harambee schools

3) act as an agency for mobilizing youth into local community services to help with special self-help projects.10

An Overview

Although there is no "typical" polytechnic, and their variety and diversity presently make generalizations difficult, there are some elements common to most polytechnics which make it possible to provide an overview of the program and facilities shared by many of the projects.

Many of the programs are based on church or county council lands which have been chosen for their proximity to existing primary schools or youth centers, as well as their closeness to the local student population, sources of teaching assistance, and centrality to prospective markets. The directors are either teachers or local master craftsmen, and, on occasion, a few have both qualifications. The staffs vary widely: an admixture of interested teachers, local craftsmen, businessmen and volunteers from overseas organizations

provide the backbone for the manpower needs for most programs. The National Christian Council of Kenya (N.C.C.K.) and the Kenyan Government frequently provide technical assistance (advice on budgets, curriculum planning, etc.) where appropriate.

Usually the students are sought only from the local areas, in keeping with one of the polytechnics' primary objectives of stimulating youth to find employment and remain in rural areas. The students are enrolled in groups of approximately thirty each year and the fees charged vary greatly—from forty shillings to over two hundred, depending on whether boarding facilities are included as well as the cost of items such as working materials and uniforms. The information about boarding facilities is changing rapidly. In 1972, Sheffield reported that only two polytechnics had boarding facilities. ¹¹ More recently, however, Court reports that thirty percent of the present polytechnics have boarding facilities, which requires an increase in fees from five hundred to seven hundred shillings per year. ¹² It is important to note that this shift to boarding students could have some significant implications for the polytechnic which was originally intended to serve local school leavers and minimal costs.

¹¹ Sheffield, op. cit., p. 76.

¹² Court, op. cit., p. 341.
An important feature of the program is that the polytechnics are organized and backed by local people. Although some assistance is available from the Government of Kenya and the N.C.C.K., the aid cannot be solicited until the community has demonstrated its ability to pull itself together, form a management committee and evaluate its needs.

The management committee is the key to beginning the process and there are several duties which the committee must perform. A guide published by the Government of Kenya and the N.C.C.K. for prospective polytechnic organizers lists these duties:

1) To educate the community
2) To create and organize local support
3) To raise funds
4) To see that a survey of the local community is carried out
5) To supervise the establishing of the village polytechnic
6) To appoint a manager and instructors to supervise them
7) To take all vital decisions connected with the operation of the village polytechnic
8) To see that the decisions of national coordinating bodies are carried out and that the advice of the Government and N.C.C.K. field officer is followed closely.

Thus, the management committee plays a major role in the creation and operation of a polytechnic. While the duties listed above may not be
fully implemented in the case of individual programs, it is clear that the ideal management committee is closely linked to the community.

When a management committee is organized, its first task is to conduct a community survey. This project is crucial, for the ultimate success of the V.P. is dependent upon how well local people have assessed their community's needs and capabilities. The first goal of the polytechnic is to provide young people with the training necessary to enable them to find worthwhile employment in rural areas. A related objective is the building of independent communities. "If the town is taking too much away from the rural areas, the V.P. must try to create the products and services that will keep the money in the local area."  

A visual representation of this objective accompanies an explanation in a handbook produced for village polytechnic instructors:

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13 *Handbook for Village Polytechnic and Youth Centre Instructors*, prepared by the Youth Development Division, Department of Social Services, Ministry of Cooperative and Social Services, Government of Kenya, in conjunction with the National Christian Council of Kenya, April 1972, p. 8.

14 Ibid.
"The headmaster buys his shoes from the local shoemaker, the chief buys his suit from the local tailor, the tailor buys his bread from the rural baker, the rural baker has the builders work group build his new house, the masons have the local tool repair man fix their wheel barrows. The money keeps moving around the community."

Often a management committee, V.P. instructors and trainees will begin the process of determining local needs by making a map of the community and deciding just what area the polytechnic can serve. Marking in all the roads, schools, markets and services is the first step to more thorough community survey. The survey is conducted using a Programme Planning Guide, a three-page questionnaire produced by the Government and the N.C.C.K. from the experience of organizing previous V.P.s. The questionnaire serves as a guide that focuses on specific dimensions which help the management committee clarify the village's economic situation. The guide is divided into two sections, a Community and Curriculum portion, and a section which is used to gather information on the school leavers who will be prospective trainees. Main topics are: occupations (with seasonal fluctuations);

15 See Appendix B.
tracing where the money in the community goes (items which can be purchased from within and those which must be obtained from outside the village); pinpointing places where school leavers might already obtain training in particular skills and identifying those skills which are needed and for which no training is available; locating human and financial resources which would permit the necessary skills to be taught. The second portion, dealing with information about school leavers, helps the committee determine the size of the population, sex breakdown, rate of dropping out, skills, and community job possibilities for youth in the area.

The Program Planning Guide is the first of three related questionnaires which the polytechnic organizers use to gather information about the community. In addition, the Village Polytechnic Work Opportunities Guide and the Programme Follow-Up Sheet are used to further specify the work done by local craftsmen in the village, the potential customers, the extent of demand for services, and the space and instructors required to teach a skill. The purpose of these two questionnaires is to bring the management committee carefully thought-out evaluation of the community. And, it is stressed in V.P. handbooks, that the process of completing a community survey must be done more than once; ideally a new assessment should be undertaken each year to ensure that there is adequate monitoring of the economic flow in the community. Taken together, these three questionnaires are a crucial guide for a

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16 See Appendices C and D.
local management committee which make it possible for them to base their decisions on the best available information rather than conjecture.

Staff

Ideally, the staff for the V.P.s should be all Kenyans. One of the handbooks stresses that the manager must be a Kenyan and should have a secondary education and be able to communicate in English, Swahili and the local language. The manager's role as day-to-day supervisor of the V.P.'s activities, liaison with the Management Committee, budget, curriculum and facilities planner and overseer of trainee selection, requires that he be well-versed in local needs in addition to his formal education and technical skill. One of the most successful managers visited by Anderson spent three months traveling about the countryside talking with merchants, looking for opportunities and assessing markets before fixing curriculum and hiring instructors. This director's experience as a farm manager provided him with the skills and executive abilities in an ideal combination for his role as manager/teacher. The difficulty in finding others like him with the appropriate combinations of technical and management skills continues to be a major problem for most polytechnics.17

Most of the staff for local V.P.s are Kenyans, an important demonstration of self-reliance which contrasts with the heavily expatriate-staffed formal secondary schools. Where primary and secondary level teachers with the necessary skills have come forth, they have been given first preference for positions on the staff. Often, however, the V.P.s are still relying extensively on overseas volunteers to fill out their teacher manpower requirements, a situation which will hopefully improve as more Kenyan graduates become interested in the kind of teaching available in polytechnics. The most important feature of staffing polytechnics is a new role for teachers—the emergence of dual responsibilities as instructors and participants. In contrast to the gap between theory and practice in the formal school system, the V.P.s are producing teachers who demonstrate and apply skills as well as explain them.\(^\text{18}\)

Finally, a large amount of administrative support and direction came initially from the church groups most closely associated with each of the V.P.s—a necessary step to get the early polytechnics underway. This too is changing as the movement grows older and V.P.s begin to generate and attract Kenyan personnel who, through experience and training, are capable of assuming these responsibilities.

\(^{18}\) Court, op. cit., p. 339.
Curriculum

Next to finance, the most challenging task which the staff faces is the creation of an appropriate curriculum for the polytechnic. Because of the newness of the polytechnic concept and the differences from the traditional school systems and even the Harambee programs, few precedents exist. The services of a polytechnic Field Officer or the Government Pre-Vocational (Youth) Training Officers are available to local groups planning to develop a V.P. program, but much of the work must be done by the staff themselves because of the necessity of intimately knowing the area and the large amount of work required.\textsuperscript{19}

Despite the variation between polytechnics, a summary of the curriculum of most centers can be organized under the following general headings:

1) \textbf{Skill Training}. This area covers all crafts and skills presently taught by the polytechnics. Everything from basics such as carpentry, masonry, tailoring and domestic science to the more unusual kinds of crafts and skills such as tanning of hides, tinsmithing and signwriting. Both the theory (including the necessary support subjects—elementary technical drawing, for example) and the practice are taught.

Most of the instruction is carried out through formal classes, although one V.P. teaches its skills (those above, in addition to well-digging, baking, quarrying, bee and rabbit keeping) through on-the-job learning alone. All courses in this program are oriented around a learning-by-doing philosophy instituted by the Director.

2) Agriculture. The practical knowledge of cash crop production, knowledge of the local area and its agricultural potential as well as an understanding of marketing is taught. As it will be pointed out later, this subject must be taught on two levels: one which is sophisticated enough to meet the needs of those students entering agricultural professions, and at another level for those whose primary interest is a craft but who will need agricultural knowledge for their farms which will act as a supplementary activity for them.

3) General Education. The basics in math, English, Swahili, general science, basic citizenship training, simple economics related to rural development, hygiene and religious knowledge are part of what might be termed the "academic portion" of the V.P.s' curriculum.

4) Business Knowledge. Simple bookkeeping, typing, office and business management and committee procedure comprise this area.

5) Recreation. Although there is disagreement among those who operate polytechnic projects as to whether V.P.s should provide recreational facilities or programs, those that have done so seem to concentrate their efforts in the conventional secondary school areas of singing, dancing, sports, debating drama and reading.

6) Spiritual Development/Character Building. Since most polytechnics have descended from sponsoring church groups, this topic is taught in most V.P.s.20

The guidebook specifies three important points to prospective polytechnic staffs concerning the development of curriculum. First, it is emphasized that the curriculum cannot be generated by what the group feels to be the needed skills for the area served by the V.P. The staff must be prepared to spend long hours surveying the local area, talking with townspeople, craftsmen, and businessmen to ensure

20Anderson, The Village Polytechnic Movement, op. cit., p. 11.
that there is a demand for what they intend to teach. The availability of instructors in certain crafts might be a warning that a given trade has a greater supply of producers than consumers, and the best way to avoid contributing to an even greater surplus is through a thorough survey of the market. Second, it is stressed that more than a single skill must be taught to students. If tailoring is a primary interest, the student's training is not complete without additional work in business management. Masons cannot be considered to be prepared in their craft until they also know how to estimate building costs and bid competitively based on understanding the business realities. Finally, flexibility is stressed. Although most courses are taught on two-year formats, shorter programs (such as those required for beekeeping and vegetable growing) should be employed. Also, it is emphasized that courses may only be taught once, while others would be repeated as long as the need for the skills was unsatisfied. A yearly survey is the device recommended to monitor the situation. 21

Perhaps the most important aspect of the curriculum at some polytechnics is flexible length of time attached to the acquisition of certain skills. While most V.P.s have organized their programs in two-year formats, a few are attempting to permit trainees to affiliate with the program only as long as it is necessary to acquire the skill which is taught. The most dramatic demonstration of this kind of training model is found in the dispersed cooperative at Soy. Court

21 How to Start a Village Polytechnic, op. cit., p. 11.
points out that trainees never become graduates of the Soy program because they never really join it.

Trainees join a work-group rather than the polytechnic itself. They join by paying a once-and-for-all registration and tool fee and can remain with the group for as long as they wish. Work groups are encouraged to take a name and write their own constitution. Expectations engendered by the notion of school are minimized as there are no term fees and indeed no terms or vacations. Training simulates work conditions as long as possible and lasts only as long as it is necessary for the acquisition of the skill in question. 22

These work groups are then encouraged to continue as self-supporting cooperatives, which, if successful, enable the trainees to establish themselves in wage employment. The evolution of a work-group into a cooperative is unique to the Soy polytechnic, but the idea of variable-length programs could be incorporated in the curricula of most other V.P.s. Ideas such as this one could begin to lessen the similarity between polytechnics and formal secondary schools—an important step in establishing V.P.s as an alternative to the present system.

Selection of Trainees

Strict adherence to a policy of serving only primary school leavers is a fundamental pillar of the polytechnic movement. Government brochures stress that although it might be easier to recruit students with less than a Standard 7 level of education (the highest

22 Court, op. cit., p. 347.
level of primary school in Kenya), staffs should not be tempted into filling their programs with those who may not possess minimal academic training. Prospective staffs are warned that the V.P. should seek to enroll only local youths and avoid selecting students from outside the V.P.'s area. Finally, a sixteen-year minimum age limit is strongly suggested to ensure that the students "are mature enough to be trained for work and so that they have experienced the hard facts of life between leaving school and coming to the V.P." The recommended process of selection is through personal interviews which possibly may include a simple selection examination. It is also suggested that interviews of the future student's parents are frequently as useful as those with the student in determining the depth of commitment and interest in the V.P. program. This process is important in setting realistic expectations for the parents and stressing the importance of fees to assist the program in its operation.

**Finance**

The biggest financial feature of a polytechnic is keeping costs low. Buildings are a major capital expenditure. Therefore, those starting V.P.s are cautioned to consider using everything from a shade tree to empty houses to temporary structures before embarking on a building program which would involve the creation of permanent structures. Discouraging the seemingly universal "edifice complex" is a

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23 *How to Start a Village Polytechnic*, op. cit., p. 17.
major thrust of polytechnic organizers. Perhaps, taking their cue from the lessons learned with the Harambee school movement where resources for structures siphoned away needed money for salaries and materials, those promoting V.P.s stress simple, inexpensive structures over more expensive permanent buildings.24

Recurrent costs and capital costs have, on occasion, been "doubled up" by having the students construct permanent structures as part of their training. But, as Anderson cautions, often too much emphasis has been placed on the creation of stone buildings at the expense of encouraging the use of cheaper and more commonly used materials such as poles, mud and baked bricks.25

The major item in recurrent costs is, as with most educational institutions, staff salaries. As previously stated, there can be no such thing as a "typical" polytechnic when total budgets ranged (in 1969 for example) from a low of 220 shillings per student per annum to a high of 1,026 per student per annum, with a mean cost of 604 shillings. (Currently there are 7 shillings to the U. S. dollar.) Insofar as it is possible to do so, Anderson constructs a rough annual estimate of a polytechnic operating at somewhat below the mean of the annual cost per student.

24 Sheffield, op. cit., p. 76.
For a polytechnic of thirty students:26

Staff Costs
Principal at $85-per month $1,020-
Instructor at $42-per month 504-
Maintenance and Improvement of Buildings 114-
Depreciation and Replacement of Tools 90-
Equipment Less Cost of Sales Per Student 90-
Books, Manuals, etc. at $3-per student 214-
Travel and Stationery, etc.

Total $2,112-

Cost Per Student Per Annum $70-

Thus, the staff salaries make up nearly two-thirds of the total, with much smaller amounts for capital costs, for the facilities, and the other recurrent costs. The budget above is neither all-inclusive (watchmen's salaries, for example, are not listed), nor does it reflect hidden costs such as salaries of volunteer teachers paid by other agencies which, if computed in as an additional line item, would significantly increase the annual cost per student. However, the sample does reflect a rough estimate of the amount of cash needed each year to keep an "average" V.P. in operation.

Raising sufficient funds for a year of operation is a major task of the V.P. director and the management committee. The Polytechnic handbook underscores the importance of first going to the community for help. It is pointed out that local people can give land, help raise buildings as a self-help project, donate materials, work voluntarily as instructors, donate cash grants on Harambee Day, keep

up their payments of fees as parents, purchase items made by V.P. students and employ V.P. leavers upon their successful completion of the program. The handbook for instructors suggests several money-making projects such as bee and poultry keeping, brick and block making, bore-hole digging, starting a rural bakery, sawmill or duka (store) which would give trainees job experience and which could also be used to generate funds for the program. While the handbooks emphasize and re-emphasize that local initiative must be marshalled before any outside assistance from the Government or the N.C.C.K. can be expected, it is also acknowledged that local resources are very limited and that training cannot fully pay for itself.

The major source of outside support has been the churches. Anderson reports that nearly all of the polytechnics he studied receive approximately 10,000 shillings per annum, a sizeable sum for most V.P.s whose total recurrent costs average between 15,000 and 20,000 shillings per year. The balance of the polytechnics' budgets are found from a number of sources: County Council grants; local church collections; self-help collections; donations from charities, commercial concerns, and private individuals; contracts and sales of work; and fees.

27 How to Start a Village Polytechnic, op. cit., p. 19.

28 Handbook for Village Polytechnic and Youth Centre Instructors, op. cit., p. 12.
The issues surrounding the funding of Kenyan polytechnics are complex and generally are centered on problems of coordination between various outside funding agencies. Inter-church rivalry, which has marked missionary efforts in developing countries in the past, seems to have been overcome for the most part in the present system of V.P.s. However, much still needs to be done to better coordinate the activities of the several national and local churches which assist polytechnics.

Sheffield reports that local support similar to that aroused on behalf of the Harambee schools has yet to materialize. This type of fund-raising effort would have to be organized with care, so as not to confuse and inadvertently mislead parents who, because of the similarity between polytechnics and the Harambee effort, might mistakenly believe that their child was enrolled in a Harambee secondary school.29

Sheffield also points out that the Kenyan Government has not yet directly aided polytechnics, due to lack of money, as well as difficulty in deciding what type of assistance might be best. He suggests that:

Training of staff would seem to be a logical form of aid. A flexible system of annual grants-in-aid might also be devised. These grants could run between $1,000 to $2,000 per annum per polytechnic. In addition, some sort of coordinating body within the Ministry of Cooperatives and Social Services could take over the functions of the

29 Sheffield, op. cit., p. 76.
present N.C.C.K. working committee. This would alleviate the increasingly severe strain on the resources of this voluntary group. 30

Anderson also stresses the need for closer coordination by the Kenyan Government which has several ministries all operating programs relating to the activities of V.P.s. The Ministry of Education, the Ministry of Local Government, and the Ministry of Cooperatives and Social Services have overlapping functions which require coordination if polytechnics are not to be buried in paperwork and reports for too many bosses.

Issues

Anderson concludes his report by raising several issues and making recommendations which shed light on the day-to-day problems of operating a self-help program in developing countries. These issues can be summarized under several headings: Education (skill training and basic academic preparation); Employment (self-employment, rural and urban opportunities); Finance; Administration.

1. Education: Anderson emphasizes that historically the V.P.s have developed as separate institutions which had meant that training for skills and support subjects (math, science, English, etc.) varied greatly from polytechnic to polytechnic. The educational focus of the V.P. depended on the interest of the director; some have seen the polytechnic as a vehicle for teaching skills aimed directly at

30 Ibid., p. 77.
wage employment, while others have conceived of the V.P. as a way of preparing students to meet the diverse occupations of rural areas. More polytechnics were adopting the latter approach at the writing of Anderson's report, but the achievement of this objective was proving difficult. Summarizing these factors, it is clear that:

a) Students come to the V.P. expecting training in one specific skill. Little can be done to broaden a trainee's abilities, however, until this primary need can be met.

b) By the second year, the trainees' abilities vary greatly and V.P.s are hard-pressed to cater to all of their levels simultaneously. Anderson suggests meeting this issue head-on by promoting some of the better students to technical schools and focussing the instruction at the mean level of students' abilities.

c) Finding imaginative and creative staff continues to be a problem. Polytechnics can attract local craftsmen in sufficient numbers but more than a basic knowledge of a craft is required. Ideas for the use of available technology and the creation of experimental approaches and solutions to problems are "skills" which the trainees need to experience. Locating knowledgeable, energetic and imaginative instructors who are able to teach and serve as models
for these skills continues to be a problem. To fill the gap, Anderson suggests the establishment of a resource center to serve as a stimulus and example for V.P.s.

2. **Employment.** "Training for what?" is the question which tempers the rhetoric and romanticism often associated with self-help schools. Students erecting their own schools and deferring costs of their education through numerous self-help projects makes good newspaper copy, but only if the program is training them for viable work-roles in the society once they have graduated. Because of the limitations on wage-earning employment in Kenya and because of the need for development in rural areas, most village polytechnics have made self-employment a primary objective. In order to achieve this objective, some general principles have slowly emerged. Summing up Anderson's major points:

a) V.P.s should be small and locally based. Larger institutions with an annual intake of one to two hundred would unquestionably be more efficient to operate, but the threat of less local contact (because the polytechnic would have to draw from a wide geographic area) is presently a deterrent to expansion. So far, the priority is strong identification with a particular community (indeed, it is no accident that the programs are termed
village polytechnics) and small size (forty to sixty students) ensures that this priority is not lost.

b) Self-employment can be emphasized through the structure and operation of the agricultural program. Students should spend at least part of their time on the family farm or their own land if they have it.

c) Artisan skills should be taught to enable the students to construct and maintain their own equipment. Here the emphasis is on practical repair skills rather than more specialized crafts which would be applicable only in a wage-employment environment.

d) Basic education in maths, language, and social studies should be practically based to enable students to contribute more effectively to local development.

There have been practical difficulties in implementing these principles. Frequently it has not been easy to obtain sufficient numbers of students who live near enough to the polytechnic to stay at home; local facilities for agricultural training often have been difficult to acquire; staff as well as students reflexively think in terms of grade tests and wage employment rather than self-employment. Because of these difficulties, the principles have had to be honored more in spirit than in letter, but the hope prevails that they will, in time, come closer to the ideal.
Court in his study of polytechnic leavers in urban and rural areas taken from ten V.P.s, provides the most recent data on employment of former trainees. He has found that twenty percent of all male and female graduates are employed by others using the skill of their training, while seventeen percent are self-employed using their skill. Twelve percent of all males and females who have left polytechnics are in wage employment, but not using the skill in which they were trained (the majority are laborers or domestic servants). Twenty-three percent are reported to be looking for work "at home," and seventeen percent of the leavers could not be traced.⁴¹

Court reports that, overall, sixty-five percent of the males and fifty-four percent of the females are known to be in some sort of wage employment. Moreover, in contrast to the polytechnics' stated goals of local (i.e., rural) employment, thirty percent of all V.P. leavers and fifty percent of those receiving regular money are employed in urban areas. He points out that:

This figure is perhaps high in relation to the fact that secondary-school leavers who get a poor result in the School Certificate examination are now part of the competition for any kind of remunerative job. It seems that employers, however, prefer polytechnic leavers to secondary-school products because they cost less and they are believed to have relatively greater aptitude for skilled technical tasks. The time may be here when School Certificate holders improve their chance of employment if they conceal their qualifications.⁴²

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⁴¹Court, op. cit., p. 336.
⁴²Ibid.
Court concludes these observations with a caution that while thirty percent of the leavers are employed in urban areas, the job markets may soon reach saturation levels. He suggests that V.P.s' challenges still remain with the seventy percent of the leavers who are in the rural areas, with or without wage employment.33

3. Finance. In general, Anderson and Sheffield recommend closer coordination at all levels of the local and the national government, as well as the churches and international donor agencies. Repeatedly, the calls are issued for better planning and cooperation by the three Kenyan Government ministries which have overlapping responsibilities related to polytechnics. The point of the planning and coordination is more efficient disbursement of aid to polytechnics. Salaries for polytechnic staff have never been competitive with those of public school teachers, and books and materials are in short supply in many centers. There is no illusion that V.P.s can become totally self-supporting through community and student efforts alone. The programs were started with "outside" assistance and will continue to require it in even larger amounts if they are to improve the quality of their teaching.

4. Administration. Imaginative, dynamic leadership is the key to any successful polytechnic program, and it is no more abundant in Africa than it is anywhere else in the world. When Anderson wrote his report, interest was increasing in the V.P., and the process of

33Ibid., p. 337.
forming viable management committees was becoming a bit easier as word of the purpose of a V.P. spread and experience was gained. He acknowledges the progress which has been made, but cautions that V.P.s may not be replicable in all communities because the necessary critical mass of organizers may not exist for the management committee. And, as Sheffield has pointed out, polytechnics have been slow in getting started; although the interest is rising, it has not yet approached the level of enthusiasm which surrounded the Harambee movement. The need is stressed for more support from outside local communities, emphasizing that directions on how to organize a flexible curriculum, what manuals to use, syllabuses to follow, must come from those with broader educational experience—generally those from outside the community. As more supporting assistance from the outside is possible, better guidance and possibly better local leadership can be expected at the village level.

Some of Anderson's summary recommendations for polytechnics will conclude this portion of the chapter. A major suggestion for curricular and supervisory improvement was that a center be established to carry out surveys of the occupational opportunities available in rural areas. The proposed center could perform many services: surveys of present youth employment patterns could be initiated and possibly stimulate a similar effort at the national level; more follow-up studies of V.P. leavers similar to Court's could be undertaken to gather information which would have important use for planning and programming; these centers might provide the support services
to stimulate curriculum development which most V.P.'s now struggling in isolation could use to improve their teaching.

Further, Anderson calls for special agricultural services for polytechnics to improve this subject area so that the latest experimentation can be applied to the needs of small, full and part-time farmers. He also suggests that polytechnics could be more in the hands of the students, pointing out that some of the best management and cooperative lessons can be learned in the process of helping to make decisions about the operation of a V.P.

In some ways, the polytechnic comes very close to an "ideal type" of self-help program. A demonstrable degree of community support is a prerequisite before any action can be taken to organize the polytechnic. Outside assistance is also dependent upon significant community response. The process of getting a management committee organized is an important administrative process, but it is equally important as a process of socializing important members of the community to an understanding of and commitment to the V.P.'s program. The goal of polytechnics to create employment for graduates in the surrounding area further reinforces the local focus of the program; self-help which is begun as part of the institution-building process is carried over to rural development, an important by-product of the V.P. effort.

Most polytechnics are moving in the direction of employing more Kenyan staff, although progress has been slow due to a lack of teachers possessing the skills which are needed. Church personnel
and overseas volunteers presently fill out V.P. staffs, but hopefully a mixture of secondary school graduates and polytechnic leavers will soon form the creative nucleus of every program. The curriculum is practical and diverse; however, the bulk of the practical teaching is done through formal classes, with only one of the V.P.'s teaching skills on-the-job. "Support subjects" such as bookkeeping, office and business management and simple economics are seen as necessary secondary skills for any future craftsman who hopes to be self-employed. Agriculture is taught at two levels: one for the professional career-oriented trainee and the second for those specializing in other areas, most of whom will use farming as a supplementary income and for retirement. Finally, despite the many self-help features of polytechnics (strong, locally-based management committees; inexpensive structures; contributions of land, materials and time; money-making industries and projects), few could survive without the substantial outside assistance from the churches and the government. The most significant breakthrough in this latter area, that of finance, is found elsewhere in Africa, in the Botswana Brigade program. A brief look at the contributions of brigade approach will conclude this chapter.

The Brigades of Botswana

In the seven years since the founding of the first Botswana builders' brigade, a movement has begun in which a thousand trainees
are working in thirty centers under ninety instructors. Presently, brigades are organized to teach several important crafts: building, carpentry, agriculture, weaving, dressmaking, silk-screen printing, tanning and leatherwork, textiles, pottery, electric wiring and installation, stone-masonry and beer-brewing. These crafts are currently part of this large-scale effort.

The program began in 1965 by Patrick Van Rensburg who had recently founded Swaneng Hill School, an academic secondary school. He discovered that he was inundated with requests for admission to the program, to which he could not respond. He struck upon the idea of enlarging the facilities of his school, using the energy and enthusiasm of the local population of school leavers, in exchange for teaching them a useful skill and some basic literacy and numeracy. The first builder's brigade was launched in this manner, and since has trained over one hundred builders, approximately sixty of whom have passed the trade exam administered by the Government, and all of whom have found employment with construction companies in the country's new mining industry. 35

Before looking at the details of brigades and how they differ from polytechnics, the goals of the Swaneng Hill School after which


brigades were patterned should be specified. As with the polytechnics, the objectives of the school depart from the pattern traditionally set by formal schooling in Africa:36

1) Selection would be based on a first-come, first-served basis rather than on academic examinations;

2) Students would contribute voluntary labor rather than pay fees;

3) Staff, at least during the initial years, would be primarily recruited from overseas volunteer organizations;

4) Training would emphasize skills related to rural Botswana;

5) Academic subjects would not be neglected, but the school would include a greater emphasis on the development of Botswana. "Development Studies" was the name given to a required course that focused on actual development problems of Botswana--economic, social, cultural, etc.;

6) Recurrent costs would be covered by self-help and by income derived from work done for outside agencies.

Sheffield reports that a combination of the last two goals led to the formation of the first Builders' Brigade at Serowe. The development of brigades were a natural extension of the program begun

36 Sheffield, op. cit., p. 65.
by Van Rensburg at Swaneng Hill. They became one of the least expensive solutions to the problems of training and employment of school leavers.  

Superficially, it appears that the brigades are similar to the village polytechnics; both deal with school leavers, training them in manual crafts, supplementing their education with remedial work in academic subjects, in a program geared to reduce costs. The groups admitted for training each year are small, roughly corresponding to the size of the classes taken in by the polytechnics, although the period of training is three years, as opposed to the usual two in the V.P.s. Here, however, the similarities end.

There are three major features which distinguish the brigades from the polytechnics: the method of teaching, the philosophy of finance and the objectives of the training. The teaching methods differ in the proportion of on-the-job training which is conducted. In contrast to the polytechnic, where most of the technical training is conducted in formal courses, the brigade student spends four-fifths of his time in manual labor and one-fifth in class. Because the work is necessary to the survival of each brigade, practical training takes place on the job. Classroom time is devoted to the theory associated with the skill the student is learning—English, mathematics, and a special course, development studies, which essentially is a simplified combination of civics and economics.

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37 Ibid., p. 66.
The reasons for so much on-the-job training have less to do with educational philosophy than financial philosophy. While the brigades tend to look somewhat like youth training programs in other developing countries, they are uniquely designed to cover their own recurrent costs. The one exception is the cost of expatriate salaries which are decreasing in proportion to the total as the brigades become better established. The point of cost-covering is mentioned repeatedly in the literature and reports about the brigades:

It is important to stress that the cost-covering principle is not just an attractive extra ingredient of the brigade concept but an integral and indispensable part of it. It may be a matter of chance that Botswana's first brigades, which were started at Swaneng Hill School, could not have been contemplated except on the basis that they would not need recurrent cash subsidies. The essential point to grasp is that unless brigades cover their recurrent costs, they become just another drain on somebody's budget, whether the government's or that of some outside agency. A brigade which does not pay its way is not only vulnerable in itself; the normal financial constraints will ensure that it will not be duplicated on a worthwhile scale, and even if it survives it will remain an isolated and token gesture rather than a meaningful contribution to development.38

According to Van Rensburg, cost-covering has not yet been achieved in all of the brigades located in Serowe, the district where the idea was started. But he feels he is close. At the time of his 1972 article, the building, carpentry, stone-masonry, electric wiring, installation and mechanics brigades had achieved cost-covering.

Farming and textile brigades were anticipated to be cost-covering within the year; tanning and leatherwork, a year away; and pottery, two years away. He addresses himself to this process, as well as the need for subsidized expatriates to enable the brigades to get started.

It has to be accepted that a brigade cannot cover its costs immediately. The skills of trainees have first to be built up. On-the-job training needs good craftsmen who are also good teachers, but a brigade cannot afford to commit itself to salaries that it is not able to cover from production. When new skills have to be introduced by expatriates requiring full professional salaries, subsidies have to be sought to cover the period needed for them to pass on their skills. 39

Sheffield reinforces Van Rensburg's point about the cost-covering and the use of expatriates. "Expatriate staff must be available and willing to work for minimal salaries. The importance of obtaining such staff is underscored by the fact that it is difficult to get well-qualified Africans to work in remote rural areas." 40 And, he makes it clear that cost-covering is feasible only where markets can be assured.

Cost-covering can only work where there is sufficient demand for the skills and products of brigades. In a poor country local demand is severely limited, and the temporary boom in wage employment for builders cannot continue indefinitely. The long-run challenge will be to develop viable farmers' brigades, although these are the most expensive in terms of capital costs. 41

If brigade programs do achieve complete covering of costs, they will stand alone—unique as compared with others mentioned in this study.

39 Van Rensburg, op. cit., p. 29.
40 Sheffield, op. cit., p. 73.
41 Ibid., p. 74.
and possibly unique in the evolution of self-help schools.

Finally, the training objectives differ less from the polytechnics than either educational methods or financial philosophy. Again, the question of "training for what?" persists and the brigade movement's response is similar in kind, if not degree, to that of the polytechnic. The polytechnic's emphasis is in the direction of local self-employment for the trainees once they graduate. The brigade trains for both self-employment and wage-employment deployment, depending on the skill being offered. When the program began seven years ago, it was undertaken as much to fill needs in the wage-employment sector of the Botswanian economy as it was to expand the facilities of the Swaneng Hill School. The movement has been blessed in its first few years by a demand for skilled and semi-skilled labor. Van Rensburg states that the graduates of the builders and carpenters brigades have all been able to obtain employment and that it is anticipated that this will also be the case with the mechanics and the electricians. This will not be possible, however, with the tanners, potters, farmers or textile workers and a solution being sought is self-employment through cooperatives. The success of these efforts is, at present, mixed. Farmers' brigades are a good case in point.

Martin reports serious difficulties with the farmers' brigades which require land settlement as part of the establishment of a viable
cooperative. Since few of those who enter the farmers' brigade are in a position to return to a farm and raise sufficient capital for even a minimum herd of beef cattle (the type of farming with the highest possible return on the investment), a co-op is the only solution. The cooperatives have been difficult to organize, particularly in a developing country where an over-riding concern for many is escape from rural areas to the bright opportunities of urban areas. Martin sees viable co-op settlements as the only alternative to conceding that the farmers' brigades, and possibly the whole movement, can do little but remain on the periphery of development. Despite the difficulties in getting co-ops organized, whether as farming settlements or as businesses for groups of craftsmen, they will remain the only real alternative for those who, because of a shrinking labor market or the type of skill they practice, have nowhere else to turn for employment.

Initially, markets for the services of brigades was not a large problem. The early programs were linked with a secondary school which needed facilities expanded. But, as these needs have begun to be satisfied, and the brigade concept was extended to crafts, the development of new markets had to assume a high priority for program managers and staff. So far, work has been obtained through government contracts, building markets in villages, using vouchers in a "swap-shop," in construction with other brigades, and establishing the Botswanacraft

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43 Martin, op. cit., p. 37.
Marketing Company. Experiments with new methods of irrigation, using local clays for pottery, sorghum for lager beer, introducing new breeds of livestock and crossing them with local breeds, making hand-operated carding machines and spinning wheels, and tanning with local barks and roots have helped make the brigades more competitive as well as contributed to production knowledge in several crafts and trades.\(^4^4\) This kind of creativity and expansion may have limits, but to date the programs have been very successful as needs arose for new outlets.

Establishing viable co-ops which serve as a place of employment for graduates has been a second major issue. The reports on the progress of these ventures seems to be mixed. Martin, in discussing the builders' brigade, comments that the results with the Serowe Construction Cooperative (Van Rensburg's pilot district) have not been encouraging. At the time of his report, Martin observes that students lacked the management experience to successfully compete with professionals once they attempted to run the co-op on their own. At that point, trainees had been preoccupied with learning skills during the program and had little time for practice with the details of co-op management.\(^4^5\) A year later, however, Van Rensburg was reporting that:

\(^{4^4}\)Van Rensburg, op. cit., p. 30.

\(^{4^5}\)Martin, op. cit., p. 56.
During their training, the people in the brigades will spend some time working in these cooperatives, getting familiar with them. At this stage, we can say no more than that our job creating experiments are encouraging and certainly worth pursuing.46

Van Rensburg's most recent innovation is Boiteko, a cooperative in which members exchange their labor and the goods produced for vouchers which can be used in a communal store. The store carries only goods produced by exchange members. As Van Rensburg points out, "We can train builders, but can ordinary people afford to employ them? We can train tanners and leather-makers to make shoes and bags, but will all these things find buyers?" While it is too soon to estimate the impact of a program like Boiteko, it may be the best hope in getting farmers to work together to form cooperatives.47 However, Martin cautions that experience in other African countries, notably Zambia, has shown the co-ops can be risky ventures and frequently need government protection if they are to survive. His advice for brigades is to move slowly with any expansion of co-ops and focus instead on training the students for employment in the modern sector.48

The financial issue is age-old and common to all educational programs, whether they be self-help schools or institutions which are part of the regular school system. The problem of raising sufficient

46 Van Rensburg, op. cit., p. 30.
47 Sheffield, op. cit., p. 73.
48 Martin, op. cit., p. 56.
resources for capital costs varies with the skill being taught. Contrary to what might be expected, the builders' brigades require relatively little capital—a minimum of hand tools, wheelbarrows and scaffolding. By contrast, farmers' brigades are some of the most heavily capitalized, as the cost in time and money for establishing dairy or beef herds is very high. At the time of the Martin report, assistance for capital development came from a variety of non-government sources, and discussions were underway for the Ministry of Development Planning and the newly created National Brigades Coordinating Committee to begin to channel aid for brigade establishment. If such coordination does begin, it may assist those wishing to organize brigades, but who do not have the funding to begin on their own. The coordination is necessary and needed, and the Government of Botswana will be able to monitor brigade expansion by controlling the funds which are available for development.  

Finally, the dependence of the brigades on expatriate staff may eventually be alleviated by a proposed staff school. Van Rensburg notes that:

Once the Brigade Staff School has been set up, it will no doubt be possible to find ways of speeding up the training of instructors, organizers, and teachers. Links can be established with other existing training institutions that might help speed up the training of Brigade staff.  

49 Martin, op. cit., p. 91.

50 Van Rensburg, op. cit., p. 32.
He goes on to point out that several of the brigades presently have a few teachers, managers and instructors who were former trainees. These staff members are not yet up to the level required to maintain comparable quality in the programs, but with in-service training provided by a staff school, their skills could be significantly improved.\(^{51}\)

It should be clear that the Botswana Brigade program is one of the best examples of a self-help, manual labor institution in the setting of a developing nation. Many operational problems continue to exist for the projects. The extent to which the concept can be expanded throughout the country and the limited impact which this small program will have on the school-leaver problem are questions that must, for the moment, go unanswered. However, the lessons being learned in Botswana may set the stage for new projects, the combined impact of which could make a difference in the plight of school leavers in Botswana.

**Summary**

It is appropriate at this point to step back from the preceding examples and look at some major categories for similarities, differences and singularities. The major categories into which the various dimensions of these programs can be grouped are: "Community Relationships," a category which includes relationships with parents, \(^{51}\)Ibid.
students and those most relevant to the operation of a self-help school; "Institutional Environment," an umbrella which covers facilities, curriculum and staff of the school; "Finance," a category which covers local, national and international assistance to the programs; and "Employment Objectives," which includes the programs' assessments of job prospects.

**Community Relationships**

It is clear that some distinct similarities exist between the three programs. All have developed or are in the process of developing a strong level of community support. This is accomplished in the Harambee and Village Polytechnic programs by a requirement that the community must create a strong organization at the local level to initiate basic planning for a program. The tie to the community in these two programs manifests itself in different ways. Since the Harambee school is based on the traditional academic secondary school in Kenya, the parent and student objectives of creating an equivalent educational program geared toward a national exam generate a high amount of interest in the school's program. As we have seen, interest and concern of the parents can go beyond financial support—the combined pressure of students and parents for successful results on the examination acts as a check on the school's staff and administration. This level of interest on the part of the community may be double-edged. The head and staff of Harambee schools are judged on their abilities to approximate the achievements of a regular secondary
school. Private schools in East Africa which enroll students who have not been accepted to a government secondary school have not been noted for their responsiveness to student and parent demands for the highest possible standards; often these institutions were schools of last resort for students who had no other educational alternative. The Harambee program ensures that the parents have some power over the school through their contributions and support. If the school is mismanaged, student attendance drops off, recruiting future students becomes difficult, parent support wanes and changes in administration must take place or the school does not survive. Of course, a liability associated with this kind of control is the amount of restraint which a community can place on a teacher or director who, in an attempt to innovate, deviates from what the community believes to be an appropriate secondary school program.

The Village Polytechnics also have close ties to the community due to the similarity in local funding efforts. As it has been shown, the management committee must perform several important survey tasks as a prerequisite to the commencement of a program, a process which spreads information throughout the community and singles out those who may contribute most to the school. The major difference between a Harambee and a V.P. program—the practical orientation of the polytechnic as opposed to the academic nature of the Harambee school—does not seem to affect the lack of parental concern over the V.P.'s curriculum. Even though the polytechnic does not have the same objectives as a Harambee school, it is under similar pressure to produce
graduates who can either find employment in the modern sector or create wage employment for themselves in their own villages. To the extent a V.P. is successful in this effort, it will continue to draw support from the community. If it fails, the program will not survive.

The brigade seems to have relied less on support from the community, but here attitudes are changing. Initially, community support was not as important as with either the Harambee or V.P. programs; students were enrolled without regard to the proximity of their parents' home. Trainees' early projects were tied to existing secondary schools and, like secondary school students, they were fed and housed, as well as trained, in return for their labor. The lower priority for community identification was also related to funding; as the brigade achieved cost-covering, the need for close financial ties to a specific village was lower. Presently, the emphasis has begun to shift, particularly in the farmers' brigades where it has been decided that a certain amount of in situ training must occur if trainees are going to be successful in making the transition from the program to a self-supporting farm. The need for community support in the other brigades may be somewhat slower in occurring, since their objective so far has not been local employment but employment in the modern sector.
Institutional Environment

"Institutional Environment" covers those dimensions of the program related to school facilities, curriculum and staff. The programs differ widely in the facilities they require and, to some extent, the methods used to obtain them. Anderson reports that a major problem with the Harambee program was an over-emphasis on the creation of stone buildings. It seems that too frequently communities have become preoccupied with building stone structures as status symbols, rather than the more economical, though less impressive, pole and sun-dried brick facilities. He stresses the need for changes in this attitude which tend to siphon off needed resources for salaries and materials. Some polytechnics take a determinedly opposite track, strongly urging those organizing programs to consider inexpensive facilities. Vacant houses, simple pole and thatched-roof structures—even large shade trees—are suggested as more appropriate than resource-consuming stone buildings. Some of the V.P.s and the brigades are heavily involved in the construction of their own facilities as part of the coursework of the trainees. The brigades have even been able to arrange work exchanges with other brigades so that skill specialities of several benefit all in the creation of facilities.

The curricula of the three programs differ in content and methodology, and these differences affect the staff composition. The Harambee programs are virtually all-academic programs, and, although some practical subjects are attempted, few have caught on. Anderson
reports that most of the energy was required to simply keep the
Harambee effort striving toward secondary school standards, and little
could be spared for experimental programs within an academic framework.
The polytechnics and brigades both are heavily involved in skill
training and offer basic academic subjects to round out the trainee's
preparation to help him become better in his skill and more self-
sufficient. The methodologies of the two programs are different. The
V.P. teaches most of its skill training in formal classes, with only
one program doing extensive on-the-job training. The brigade teaches
nearly all of its skills in on-the-job settings. The amount of labor
required of a brigade trainee appears to be proportionally higher than
that of a polytechnic trainee, because of the brigade program's
insistance that every project become self-financing as soon as pos-
sible. This goal requires that the students spend four-fifths of
their time in economically productive activity to keep costs low, with
the balance being the only time available for classroom work. The
staff of each of these programs varies according to the type of
curriculum and the format of the program. Harambee staff naturally
have to have as much academic preparation in disciplines as possible.
They are drawn from an assortment of sources, principally former
primary school teachers, occasional secondary school graduates, over-
seas volunteers and missionaries. The brigade and polytechnic are
similar in that some of their teachers must be brought in from out-
side the local area because the skill needed is not available. Some
of the instructors can be found among local craftsmen, and the
programs attempt to employ them as much as possible. Of course, there are limits to local manpower resources and the polytechnic, which occasionally teaches several skills simultaneously, encounters these limits more frequently than the brigade which usually is a single-skill project. So far, the brigades seem to be the only program of the three which are attempting to train staff specifically for the needs of their programs. The Staff School could do much to assist in eventually eliminating the brigades' only uncovered recurrent cost, that of expatriate salaries.

Finance

Here the similarities and differences are fairly straightforward. The brigade is the only program which presently views cost-covering as a realistically attainable goal. And, this is possible only with the help of expatriates and volunteers whose salaries are covered by outside sources. The objective of the brigade program is to use these outside sources of support only until a program is underway; it must become cost-covering within a reasonable period of time to avoid becoming another program draining the already over-strained budgets of Botswana. The polytechnics attempt to reduce their costs through labor as well as holding capital costs as low as possible, but the programs continue to be underwritten at significant levels by the church which has donated land, facilities, manpower and cash to assist with costs. The fund-raising efforts of the Harambee programs have been ambitious but have had limited success. Co-ops have been tapped
for annual contributions, but success with this source has been mixed. Other grants from county councils and other local organizations have been small and unreliable. The Harambee programs must rely on considerable support from the Kenyan Government, once the maximum levels of local support have been reached.

**Employment Objectives**

Here the three programs clearly differ. The Harambee program is essentially an academic secondary program attempting to prepare students for further education, at the university level or with a technical training school. Success is measured by the number of students these programs graduate and place in further academic work, or in jobs for which traditional academic education is considered appropriate preparation. The polytechnics' objectives are primarily on self-employment in the local area, although some students are being trained for work in wage-employment skills. The brigades are only now facing the self-employment versus modern sector issue, since for the moment the country has been able to absorb nearly all of the graduates. Some skills (pottery, textiles and farming, for example) will not be as marketable and brigade organizers are refocussing these projects accordingly. In general, the brigades have had the luxury of finding willing employers for their graduates, but this is bound to change as more students are trained by an increasing number of programs.
This concludes an examination of three of the better known African self-help programs. These programs together with those already covered in the cases described in the preceding chapter will be the focus of Chapter V.
CHAPTER V

SUMMARY, CONCLUSIONS AND SUGGESTIONS FOR FURTHER STUDY

The chapter begins with a comparative and contrastive summary of the most important characteristics of self-help, community schools which were discussed in Chapters III and IV. The dimensions of the case studies presented on the three American schools and those which emerged in the examination of the African projects provide a framework from which to view both the elements which are common to all of the programs and those which are unique or situationally specific. The same categories for this analysis which were used in Chapter IV will be used here; these categories offer the most convenient grouping of the dimensions of manual labor schools initially discussed in Chapter I. The chapter concludes with a preliminary checklist of questions to consider which would be useful starting points in the creation of any self-help program.

Community Relationships

In all six of the schools and projects discussed in Chapters III and IV, relationships with the community have played some role in either their development or present-day operations. The clearest examples are the African programs, which have as either an explicit or implicit objective, the unifying of small communities in rural
areas with the hope of slowing the flow of the migration to urban areas. The two projects in Kenya, the Harambee school program and the village polytechnic, use the local community as a base for the commencement of a project. If the inertia which is commonly part of the rural landscape cannot be broken by forming management committees to raise funds or conduct community surveys, planning for either of these programs cannot continue. The act of organization is a litmus test to determine the extent of community interest; if the proposed school does not have broadly-based community support—particularly as the African projects are dependent on local resources for skill training, funds and, in some cases, employment of graduates—the time to discover it is at the beginning, before funds, facilities and people are fully committed. As it has been pointed out, the brigade program in Botswana is beginning to turn increasingly to a stronger relationship with the community and surrounding area. These projects, beginning as they did as construction teams attached to existing secondary institutions, did not need any special relationship to a community; the support and need for their work was connected directly to the secondary school, which also assisted the brigade in organizing housing for itself, making arrangements for meals and setting up classes in support subjects (math, language, etc.). The initial need for semi-skilled workers in the modern sector of Botswana also slowed any tie to a specific community, since the graduates' employment would not come from the local area, but would be found elsewhere
in the country. The situation is changing, however, and as the demand in the wage-employment market becomes satisfied and brigades turn to other skills (farming, pottery, textiles) which must be self-supporting, the ties to local communities will become more important.

Relationships with the community have played equally important roles for the American self-help schools. Historically, ties to the community during the founding years of almost every manual labor institution were important. From Oberlin, Berea and Tuskegee in the 19th-century to the 20th-century examples in Indiana featured by the Deweys, community involvement has been a fundamental element in the establishment of a self-help program. Support was often limited and came in various forms (gifts of land, equipment, assistance with production), but it was, nonetheless, important. The best example of this dimension's strength is seen in the two examples of community schools organized in the late 1930s and early 1940s in the American South. Here community support was reinforced by a new dimension, community service. Canneries, agricultural and home economics assistance became functions of the school as important to the community as the education of students.

Present-day manual labor schools are returning to the concept of community service, as exemplified by the student tutorial and service programs found both at Putney and Berea. Economics plays a fundamental role in the extent to which this kind of service can be expanded as part of the schools' responsibility to area residents.
Even though the student manpower allocated to this kind of work may be limited, the service can be seen as repayment for the community's support and assistance during the founding years when local resources and markets often spelled the difference between success and failure. The move to community service can also generate additional financial support for the school. As Berea College has discovered, community service occasionally brings an unanticipated benefit of financial gifts from donors who were impressed by the expansion of the school's labor program into public service programs.

Two other related dimensions of the "Community Relationship" category are the roles of parents and students. The perceptions of parents and students of the objectives of manual labor programs are usually central to the schools' and programs' relationship to the community. The influence of parent and student attitudes varies considerably within the six types of programs considered in this study. The major factor is the schools' objective in using manual labor as part of the program. The understanding of this objective is important to the support and morale of both constituencies. It is obvious that the Berea, Warren Wilson, polytechnic and brigade programs are attractive to parents and students because of the reduction in educational costs as well as the opportunity to acquire
a skill. To the extent that the students' and parents' perceptions of the purposes of the school are synonymous with the school's objectives, student and parental support will not be an issue. Therefore, it is clear that self-help schools must make an effort to communicate their objectives to their students and parents as well as demonstrate that they can achieve them, to retain credibility with their sources of manpower and financial support. Is the work program successful in reducing costs? Are some trades taught for those who wish to learn? Do these responsibilities "build character," in the cases of Berea and Warren Wilson College? Does time spent with a polytechnic or a brigade mean that the graduates will know how to begin and operate their own business, or is the program's objective to prepare graduates primarily for the modern sector and working for someone else? Because of the importance of these questions, good communication of the school's goals is crucial to close ties to the community.

1 Concerning the above point, there are two exceptions to this generalization: the Harambee school which does not include manual labor in its curriculum is attractive because of its low cost and the opportunity it provides for students to achieve a secondary education. However, it has been shown that student and parent attitudes are central to the school's success in an area, where poor organization and examination scores result in an eventual loss of parent and community support. The Putney School is also an obvious exception with a tuition cost which, in spite of a work program, remains very high.
Summarizing this category, it is clear that most self-help programs must either begin with or soon establish a strong relationship with the community. Berea and Warren Wilson College clearly began with strong community support, as much as polytechnics and Harambee programs are presently assisted today. The Putney School and the brigades in Botswana are moving in the direction of more community involvement, in different ways and for different reasons. Community support seems to be an essential element in most schools, but because of the special character of self-help schools, community support seems to be especially important.

Institutional Environment

This, the largest and most comprehensive of the four categories, is subdivided into "Facilities," "Curriculum," and "Staff," each of which will be discussed separately.

Facilities

At first blush, to compare the schools' facilities might seem inappropriate; the juxtaposition of Berea's relatively elegant campus and the pole-and-thatch structure of some polytechnics may seem extreme. It is easy, however, to forget that Berea began in a simple one-room schoolhouse, not too far removed from a 19th-century American version of pole-and-thatch. This type of modest beginning is more the rule than the exception for self-help schools.
The important point concerning most manual labor programs is the control of capital cost through a conscious effort to build and expand simply. In the United States the Putney, Berea and Warren Wilson programs began modestly and, as their history reveals, developed more elaborate facilities only after contacts established through the years brought additional resources to the institution. Two of the programs consciously aim to keep at least some of their construction in the hands of students. Putney School students recently built a girls' dormitory and a sugar house. They remodelled the theatre and are currently building a fine arts center. Students at Warren Wilson College continue to be involved in projects, such as construction of barns, helping on the college chapel and refurbishing the interior of one of the dormitories. Student assistance is not limited to smaller projects, for some of the largest buildings on the Berea campus were constructed with student help.

Simplicity is still an important part of African self-help models, because of the scarcity of the capital necessary to raise more elaborate structures. Possibly learning from the mistakes of some of the Harambee programs, where the appearance of a secondary school sometimes outweighed the quality of the events which took place within, the village polytechnic guides and handbooks repeatedly stress the need to keep start-up costs low through the use of very basic buildings. Even more than the village polytechnics, brigades have built adequate but inexpensive structures, held in check largely by
the cost-covering priority which overshadows nearly every other aspect of the program.

Frills and the concept of self-help do not co-exist well together. And, too much money can be as much of a problem as too little. As with any institution which becomes established and begins to attract gifts and donations, schools with manual labor programs can choose to channel resources coming in from the outside into elaborate capital improvements. Perhaps one reason that most schools evolve in this direction is related to the process of "maturation" which seems to lead institutions towards more elaborate structures and facilities as they become established. This temptation is no less great for self-help programs, which may select facilities too elaborate or time-consuming for anyone but professionals to construct. By accentuating simpler projects, self-help institutions ensure that money is saved and that their students can handle the work.

Curricula

The curricula for most of the schools considered in this study are similar in major dimensions, yet differ in many details. While all of the schools and projects are self-help, the type of student enrolled, the objectives of the program, and the extent of outside funding are quite different. All of these factors affect the curriculum for each program, and the similarities and differences reveal the diversity in the midst of overall unity of the self-help model.
The relative differences in industrial development is the major determinant causing the greatest curricular variation between the American and African self-help programs. In a non-industrialized setting, labor is relatively inexpensive as compared with capital goods. Today, in developing countries, labor is in abundant supply and most manufactured products are scarce and expensive. It is not surprising that schools in these settings utilize student labor to provide themselves with facilities and occasionally goods, which would otherwise be unavailable due to excessive cost. Conversely, when schools are located in highly industrialized settings, goods are relatively less expensive while the cost of services is high. Labor is used in these institutions to provide the services (usually maintenance in nature) necessary to enable the schools to reduce their costs. Once again, the maturity of the institution also plays a role, for as a school becomes established and basic construction is completed, general maintenance tasks make up a greater proportion of the labor performed by students. Thus, both the economic setting and the development of the school affect the nature of the jobs available in the work program.

With the exception of the Harambee schools, all of the models considered in this study make manual labor a regular part of the program. The time varies from two afternoons a week at the Putney School to four full days a week in the Botswana brigade program. The system of remuneration also varies from no tuition as in the brigades
to reduced tuition as with the polytechnics and Warren Wilson College to reduced tuition plus small salaries paid to students in the case of Berea College.

One general observation which can be made about the American schools' program is that economic necessity initially outweighed educational rationales in the establishment of a manual labor program. While Theodore Weld's report repeatedly stresses the need for exercise and manual work as an alternative to academic work, the primary motivation was economic for the programs at Oberlin, Berea, Tuskegee, and later for those schools built for low-income populations in the South. These institutions were being organized in non-industrial settings and had, at least initially, limited financial resources. The only alternative, if they were to survive, was to make student labor a high priority in the program of the school. Because most of the American institutions considered in this study also had academic training as a priority, the work program never became the central focus of the schools' activities. And this is one of the major curricular differences between these schools and the African programs considered in this study. The polytechnic and the brigade currently exist in a non-industrialized setting and are aimed at assisting the school leaver population. There is heavy emphasis on skill training, with the more traditionally academic subjects seen as supplementary. This difference affects much of the curriculum of the respective programs.
The work program at the Putney School can be characterized as an important element of a curriculum offering a number of diverse experiences for students. While the work-job program was essential to the school's survival during the early days, it is less so today. The program offered by the school attracts more than sufficient numbers of students who would probably be able to afford the increased tuition which would result if the work program were eliminated. In contrast, the programs at Berea and Warren Wilson College are crucial to both the individual student's and the institutions' needs. This is reflected in the structure of the labor programs which stress a high degree of accountability, place more emphasis on productivity, and operate a formal system of rewards (incentive systems) and punishments (labor probation). The brigade and polytechnic naturally reflect a stronger emphasis on a labor program curriculum since the primary objective is skill training. Additional factors—the necessity of productivity for survival, the highly motivated student population and small size which increases the intimacy between staff and trainees—all contribute relevance, immediacy and a sense of purpose to these labor programs in Africa.

It will be recalled that one of the original hypotheses for this study concerned the amount of linkage between the classroom and the labor program. It was assumed that all labor/learning institutions would, as some of their literature suggests, place a heavy emphasis unifying academic with practical study. This is clearly the
case in the African programs (with the obvious exception of the Harambee school), where the emphasis of the skill being taught coupled with the type of student being served, forces practical applications into the academic portions of the curriculum. Math, English, social studies or civics are clearly going to be geared to the special needs of the trainees. In addition, practical subjects (home economics, agriculture, etc.) which frequently have been taught didactically, take on new life in a situation which is surrounded with the immediacy generated by daily practical application.

The search for unification of the academic and practical in the American schools has yielded some examples, but none quite so distinct as those found in the African programs. Since the American programs featured in the three case studies are currently academic in their overall orientation, they do not attempt the kind of linkages which might be found in more vocationally focussed institutions. However, closer relationships were expected than were found in the cases, or appear to have been present in any of their historical antecedents. It was assumed that most of these institutions would be engaged in some special effort to ensure that the work program, which most of these schools make an essential part of their philosophy, was integrated into all aspects of each school's program. It is clear from the material in Chapters II and III, however, that unification of the academic and manual labor programs occurs only in the most obvious situations where this kind of linkage is natural:
students majoring in agriculture or business often have jobs which reinforce their academic work; teaching assistants whose labor for the school is conducting a discussion section or performing departmental work are frequently the best examples of the mixing of the academic and practical through the labor program.

Happy coincidence, rather than design, seems to prevail in the majority of the situations where work in and outside the classroom is part of the student's educational experience. However, in any institution there are going to be limits to the amount of work which the school needs performed, which also complements the academic program. Unless the program offered is primarily vocational, there will be a large number of students performing work which meet the school's needs, but has little to do with the pupils' academic program. It seems that as a school becomes more established so that the labor is related less to survival and more to maintenance, and as the program becomes less vocational and more academic, fewer opportunities are available for unifying practical and academic study. And, since there seems to be no escape from this phenomenon, ways need to be found to interpret the work program more meaningfully to students whose jobs may appear to have little meaning to them as individuals or to the survival of the institution. Special seminars and/or courses have been suggested in Chapter III; these and other suggestions will be discussed as part of the conclusion and recommendations which will complete this chapter.
In summary, the work programs of Berea and Warren Wilson Colleges, the Putney School, the brigades of Botswana and the polytechnics of Kenya all differ in detail. The size, diversity and complexity of the Berea program, the high degree of skill and responsibility found in some of the jobs at Warren Wilson College, the flexibility of the program at Putney, the emphasis on skill training and productivity which are a major part of the brigade and the polytechnic distinguish each of these manual labor programs. The concept of manual labor is quite simple, but differences in economic resources and the economic system in which each school is located, create individual differences between programs which make them unique.

Staff

It seems that obtaining qualified and talented staff for manual labor programs always has been and will continue to be a problem for American as well as African schools. Job requirements for staff which emphasize academic competencies, technical ability in a skill and the ability to sustain close personal relationships with a number of students, combine to make staff recruitment and selection a difficult process. As has been pointed out, finding suitable teachers for the Putney School has been less of a problem in recent years because of a growing surplus of teachers in search of more flexible programs like the one available there. The school's success in locating
teachers with the right qualifications is not typical; staffing is a greater problem for the other programs in this study.

The problems associated with finding staff vary from one school to another, as each setting brings out different factors which affect staff requirements. Berea College, because of its size and diversity, has the most highly specialized staff roles considered in this study, a situation which permits the school to look for specialists, as opposed to multi-purpose generalists. The generalists seem to be a prerequisite for smaller programs and participants in both the Putney and Warren Wilson programs confirm this. Locating appropriate staff at the higher education level seems to be more of a challenge, due to the interest and preparation in specialization which is frequently a characteristic of those seeking employment in colleges and universities. Professors with acceptable academic qualifications often do not also possess the interest or skill needed by either Berea College or Warren Wilson College, and the solution usually has been to hire two people to meet the need. While, under the circumstances, this course of action seems to be the most reasonable alternative, a consequence continues to be the perpetration of a gap between the labor and academic programs, with manual labor usually acquiring second-class status.

In Africa, the problems in locating qualified staff in either academic areas or practical skills training are more severe. Since the brigades and polytechnics exist to train skilled manpower, the
priority in staff recruitment is in favor of technical competence, a quality which is rare in the African manpower pool. Although many African nations are beginning to produce graduates in some academic subjects in sufficient numbers to meet the demand, most countries cannot yet generate enough technicians and skilled craftsmen to staff programs similar to polytechnics or brigades. Thus, the reliance on expatriates and overseas volunteers to fill the vacancies and tide the programs over continues until more Africans will be available.

To date, the brigade program seems to be doing the most to meet the need for African technicians. Van Rensburg speaks of the creation of a Staff School which would recruit and train teachers from both inside and outside the brigade ranks. Anderson proposes regional centers to serve several polytechnics with visiting specialists who could assist with some of the teaching as well as train village polytechnic staff. Whether these recommendations will be implemented remains to be seen, but it is clear that, just as with the brigades, special steps have to be taken to overcome present deficiencies.

In-service training for American teachers in self-help schools seems to be no less appropriate than the proposals for the African programs. As has been noted, the need for better communication of the rationale and philosophy of the labor program as well as a sharing of methodologies and problems, might do much to increase the strength of the work program and the status of the staff. In-service training
for labor supervisors has as much relevance for American manual labor programs as any in Africa.

The special objectives and characteristics of self-help programs will usually make the process of locating and training staff members a major task, and the programs described in this study have yet to devise adequate solutions to the problem.

Finance

This category provides some insight into the other major hypothesis of the study that most self-help schools were able to realize significant savings in operational costs through student labor. The findings concerning this hypothesis is that most schools know few specifics about money saved through manual labor programs.

As reported in Chapter IV, the most recent information available indicates that a few of the brigades have achieved cost-covering (excluding the salary of the director) and several more are expected to do so within the next year or two. The brigade program is the only manual labor project known to the author which aspires to complete self-sufficiency and, if Van Rensburg's estimates are correct, this goal may soon be realized.

None of the other programs, African or American, considered in this study have self-sufficiency as an objective and all receive major financial assistance from other sources. The Putney School, with one of the highest tuitions in the country, does not claim to be
self-supporting, nor does Berea College which has one of the largest endowments for any school of its size. Warren Wilson College has been subsidized for many years by the Presbyterian Church and is now in the process of beginning a major campaign to fill the gap created by the withdrawal of the Church. The National Christian Council of Kenya funds polytechnics at significant levels and the Government of Kenya supports Harambee programs with major contributions once local communities have demonstrated their commitment by collecting funds. Both of the reports by Anderson cited in Chapter IV make clear that neither the Harambee schools nor the polytechnics could survive without outside support, and there seems to be no plan to attempt total cost-covering.

While there are some financial figures available for the polytechnics and brigades, unearthing comparable data for the American schools in the study is unlikely, barring a major case study of each school. The author was unable to locate cost/benefit studies of any of the labor programs featured in the cases; such a task was either not a high priority in these institutions or unrealistic at this time, due to competing demands for manpower and resources. In short, the American schools have yet to determine just how much is saved through student labor. Even rough estimates are complex due to problems with costs of underemployment of some students and multiple sources of outside funding. Most of those staff members interviewed who were in a position to implement such a study either
did not know or would not venture a guess as to the savings or hidden costs of student labor.

The reasons why financial studies have not yet been undertaken are rather straightforward. A cost/benefit study requires skill and considerable time. Money and manpower to accomplish this task has not been available, due to more pressing demands on the institutions' resources. One of the original intents in founding self-help schools has been cost reduction and, during the early years, the labor of the students contributed in obvious ways to the support of these institutions. As other means of support began to become available, the educational rationales for student manual labor superseded those that were fiscal. This transition has taken place gradually and the effect seems to have been the de-emphasis of the cost-covering rationale to the point where extensive studies of the money saved through manual labor is of little priority. Further specifics will have to await the schools' own internal studies which may be made at a future date when resources and interest permits.

**Employment Objectives**

Although this category may seem to be only appropriate for the African programs, it does have some relevance for the American schools featured in the case studies. Both the brigade and polytechnic have similar employment objectives for their trainees. And, as it was pointed out earlier, the emphasis on self-employment in one case or
wage-employment in the modern sector in the other is the only major difference in these two programs' employment objectives. The polytechnic has been, from its inception, dedicated to training students for self-employment in rural areas; and while some of the graduates have managed to find wage-employment with a business or company, there are limits to the number the market will be able to absorb. These limits are not yet close at hand for some of the brigade leavers in Botswana because of the need for construction workers in the newly created mining industry. There will be limits to this market as well, and organizers are turning these and newer brigades, which have never been designed to produce graduates for wage-employment, into self-employment objectives. Brigade and polytechnic leaders readily acknowledge that even the emphasis on self-employment can only partially meet the needs of school leavers since the numbers are so great and opportunities in rural areas are limited.

The question, "Training for what?" has been used in discussions of African programs but was not asked in this study of American manual labor programs. If asked, the responses would probably group themselves around the familiar goals: to teach responsibility and decision-making, to build character, and to learn to work cooperatively with others. But, it is clear from the information presented in the case studies that no systematic study has been done with the graduates of these institutions to probe the importance of the work program and
Its relationship to vocations or avocations in later life. Does a work experience during secondary school or college build confidence and teach decision-making any more than numerous other experiences before, during and after schooling? What elements of a work program build character, in the view of the graduates? Did they acquire useful skills in the course of their labor, which help them in their work or as avocations during leisure hours? Answers to these and similar questions will not be available until follow-up studies of graduates are done. It would seem that the need for this information is no less urgent than the need for information about the employment success of African manual labor program graduates. As has been shown, much of the raison d'être for manual labor programs in the United States is expressed in rationales which might be clustered under the general heading of personal enrichment—character building as opposed to skill training objectives. It would be useful to know how well and to what extent any of these American-based labor/learning programs succeed in enriching the lives of their participants.

Conclusions and Suggestions for Further Research

The final portion of the study will consist of conclusions and recommendations for further research. These conclusions should be considered as tentative, some of which are suggested as hypotheses which could form the basis for additional study.
From the information which is available for both American and African programs, it appears that the major criterion for success in an American manual labor program is different than the criterion for success in Africa. A successful program in Africa is measured by a relatively objective criterion: the ability of program graduates to generate employment for themselves or to find employment in the modern sector of the economy. All else rises or falls on his test of the programs' effectiveness. And, a student's ability to generate employment for himself or find wage-employment is dependent on two factors: 1) his mastery of a skill for which there is a demand, either in the traditional or modern sector of the economy; and 2) his ability to manage a business, if self-employed, or take the initiative to find and hold a job, if employment for a firm is possible.

The first of these factors, the mastery of a skill, is relatively easy to measure and certify at specific levels of competence. The second factor which is made up of management, independence, decision-making skills, luck, and the ability to take initiative, while more difficult to measure, is equally important for the success of brigade or polytechnic graduates. The extent to which the trainees are able to master the elements of these two factors determines the success of these programs.
Success for the contemporary American manual labor program must be defined in different ways. The schools featured in the cases exist in an entirely different economic setting, operate on different objectives and enroll students who are motivated by different concerns. Here the criterion for a successful program is the enrichment of the individual student. Manual labor is seen as contributing to the students' personal development (character building, appreciation of manual arts, avocational skills to occupy increased leisure time, good work habits) more than skill training which will be the source of employment for life. Obviously, this criterion for success is more difficult to measure than the relatively straightforward criterion for success in the African self-help programs. "Personal enrichment" is an all-purpose term to cover the character-building and independence-creating objectives of labor/learning programs. By giving this objective a priority, American schools find themselves in a position where determining the success of the labor programs is more difficult to ascertain than their African counterparts. Given these two criteria for success, a clearer standard for accountability exists for the African programs than for the American schools; the polytechnics and brigades either produce trainees who are capable of making a better living than other school leavers who did not go through the program, or these programs must be regarded as failures.

Because the line between success and failure is not so clearly drawn in the American schools, two needs become apparent: 1) support,
in the form of special seminars and/or more consultation with supervisors is necessary to ensure that the student benefits in meaningful ways from the program which has, as a major objective, his personal development; and 2) follow-up studies, specifically focusing on the work program, should become a priority for the American schools.

A kind of precedent can be found in the African programs for both of the above suggestions. The Botswana brigade program includes as part of its curriculum a course entitled, "Development Studies." The course is a simplified amalgam of economics, commerce and civics. The primary purpose is to relate the work roles in which the trainees are specializing to the needs of national development. Similarly, American students, particularly those enrolled in manual labor schools, need an opportunity to discuss their relationship to the work they are performing. Topics might range from petty grievances to more global subjects such as the nature of work and the meaning of labor at different points in man's history, and in different cultures of the world. Such a seminar, coupled with closer consultation and support of work supervisors, might do much to strengthen and enrich both the students' experience and the institutions' program.

Second, taking another cue from African programs, a study should be initiated by American manual labor programs to determine what effect the effort is having on graduates. Of necessity, African programs are now beginning follow-up studies to ensure that the type
and methods of training are appropriate for the markets available to graduates. Likewise, a study specifically focussed on the impact and relevance of a labor program for graduates of American programs, is long overdue. Do the graduates use any of the skills they acquired in their present occupation? Are the skills more relevant to avocations? Do graduates find themselves involved in community affairs and self-help projects, and is any of this interest attributable to the leadership objectives of labor programs? In what ways do the schools save money through student labor programs? What are the costs and benefits of various job and project alternatives which could be pursued in a labor program? None of these or similar questions can be answered because, to the author's knowledge, they have not been asked. Because personal development and enrichment rationales are higher in priority with American schools than with the skill-oriented African programs, some measure of achievement as perceived by the graduates seems to be in order.

In summary, the criteria for success in the African and American programs are different: the African graduate needs management as well as technical skills for success, while the American graduate needs to perceive the work experience as a significant contribution to his personal development or to the reduction of the cost of his education. Support, in the form of seminars and discussion, is needed to help both African and American programs become more effective, as are follow-up studies to determine if objectives are being met.
Funding, Learning and Productivity

Two other tentative conclusions also relate to the work program. The first concerns the relationship which seems to exist between the amount and methods of skill training, the need for productivity and the amount of funding which is available to the school from outside sources. It appears that the more a self-help program attempts to cover its costs through student labor alone, the greater need for productivity and efficiency on-the-job as opposed to classroom learning. The clearest examples of this relationship are the brigade and polytechnic programs. The former attempts were cost-covering, with the result that there is a high emphasis on productivity, on-the-job learning and a low emphasis on time spent in a formal classroom. The polytechnic, by contrast, is able to schedule more remedial subjects and indulges in less on-the-job training because much of its costs are subsidized. The need for productivity is not as great, since costs are covered in other ways, and more time can be spent in deeper study of a craft or on academic subjects to improve the students' literacy and numeracy.

The principle which seems to be in operation here is this: if the need for productivity is low, students can be rotated through several jobs with the understanding that the emphasis is on adding breadth to their experience. Because productivity usually suffers under these circumstances, the sacrifice in increased revenues is
consciously made in exchange for a broader education of the trainee. Efficiency is gained if the student is retained in only one or two positions for the bulk of his time with the school; the institution tends to benefit more from the increased productivity which is the result.

This relationship does not necessarily hold true for manual labor schools in America. The schools considered in this study all receive funding from outside sources, but whether or not learning takes precedence over productivity seems to depend more on the priority of the task and the personal interest of the supervisor or student. These schools are more broadly based in the number of diverse jobs they offer than the African programs. The learning versus productivity issue seems to vary from job to job, depending on the supervisor, a decision by the administration or the interest of the student. The lack of pressure is a luxury resulting from lower pressure to cover costs.

From Productivity to Service

Another tentative conclusion concerning the work program is yet another luxury achieved through lack of pressure for productivity. As such, it applies only to the American programs. When manual labor programs become established and overcome their initial battles for survival, the definition of useful work seems to undergo change. The "sweat versus glow-of-perspiration issue" at Warren Wilson College or
the Putney School are cases in point. In earlier days, the definition of labor in either of these schools was never in question; tasks involving vigorous physical exercise were about the only kind of work available. As these schools have overcome the challenges of the "frontier," staff and students have made suggestions about other types of work which, though less demanding in a physical sense, might be equally valid as work for the school. Community service projects, production of the school paper, teaching special courses are some of the suggestions which have been made. There has been opposition to these ideas from those who see the broadening of the definition of work as diluting the original intent of the manual labor program. To date, each of these issues has been decided on a case-by-case basis. The process will probably continue until a new definition emerges over time. Quite possibly African programs will have to face similar issues as they become more established and overcome their current challenges simply to survive. At the present time, the polytechnics and the brigades are confronting the most basic issues dealing with survival: construction of facilities, covering costs, locating and training staff, and finding wage-employment or successfully teaching trainees to employ themselves. When these initial elements have been dealt with successfully, the schools will have to find new ways to stimulate students with meaningful tasks.
Facilities: A Rationale for Staying Simple

The final tentative conclusion related to the work curriculum concerns facilities. In a choice between basic and complex facilities, self-help programs do well to opt for the basic and the simple. There are three reasons for this: 1) construction of elaborate facilities consumes more money than basic structures; 2) simple facilities are more readily constructed by students than elaborate ones; and 3) the more elaborate the facility, the more time required for students to complete the project. Time necessary for construction becomes an important hidden cost in student labor. Most self-help schools report that in exchange for lower construction costs through the use of student labor, more time is expended to complete the project because so much of the work is being undertaken by non-professionals. Finally, the question of, "What next?" is frequently raised by those who point out that much of the challenge and many learning opportunities may disappear once the school's facilities are completed. One alternative coming from the experience of the village polytechnic is to expand construction projects into the surrounding community; creation or improvement of public facilities and improvement of private homes are two types of projects which have been tried by the polytechnic and the community school in the American South. Another solution is the Putney School's program of major projects which seem to be partially phased in such a way that
there is always one coming up to which students can contribute energy and talent. A more formalized version of this kind of program is one of controlled replacement now being tried by another boarding school in New England; less expensive, short-term use structures are being designed so that students will always have useful projects to complete for the benefit of the school.  

Finance

While knowledge of expenditures was available from the African programs, it was not possible to obtain similar information about the costs and benefits of manual labor in the American schools featured in the study. Lack of time, manpower and the cushion of substantial outside resources have so far precluded the commencement of any cost/benefit study. It is safe to assume that, like the present-day African programs, close track was kept of the expenditures and savings in manual labor during the early years of the American experience. However, few programs ever achieved cost-covering and, if the Botswana brigades succeed, they could be the first manual labor project to do so.

Community relationships for financial reasons are exceedingly important when projects are new and small. Some of the American

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2 Conversation with the President of the Board of Trustees, The Stowe School, Stowe, Vermont.
programs and the current African projects are good examples of local self-help, and the benefits which can accrue to manual labor programs which develop close ties to the community. Limited but crucial human and financial resources frequently become available when schools actively attempt to serve the communities in which they find themselves. Financial ties to the local community become less crucial to the survival of the institutions as outside funding is located, but the element of service remains. Most of the established American programs continue some form of service to the community, as an outlet for student interests in social activism and as simply part of a "good neighbor" policy.

Student Participation: Attitudes and Motivation

Students find themselves in these programs either through choice or necessity. For many school leavers in Africa, a self-help project such as a brigade or a polytechnic represents a last resort as far as any formal training is concerned. While not so extreme, similar circumstances frequently surround a low-income student in a manual labor school in America. In both of the African and the American examples, necessity is a motivating factor for the student's participation in the program. Given this, African administrators consistently have to resist pressure from some of these students to imitate the secondary school system with certificates, uniforms and other accouterments of the academic system. Similarly, some low-income
students in American manual labor schools resent the work and think it out of place in an academic institution. All of the projects considered in this study, both in Africa and America, have encountered similar forms of this problem.

Exceptions to these generalizations occur with those students who attend manual labor schools by choice rather than necessity. In the case of the American programs, such as the Putney School or Warren Wilson College, many of these students come from middle and upper-middle class backgrounds and reflect much of the romantic, back-to-the-basics philosophy currently popular in America. The staffs of self-help schools have to be prepared to deal with the special needs of both of these types of students, helping those who wish they were elsewhere understand the long-range benefits they will acquire through participation in the program, and those who have over-romanticized work with their hands by providing support during their inevitable adjustment to reality.

Areas for Further Study

1) Supporting evidence beyond intuitive hunches is needed to learn more about the utility of manual labor programs for American students and graduates. Bobbit's study of students' perceptions of the program at Berea College is a start, but a far more comprehensive, longitudinally-based study would be preferable. Follow-up is no less
important for the American programs than those in Africa, though the United States schools are not training graduates for vocations in manual labor. It would be useful to know how these programs have affected the students following graduation. Information about acquisition of good work habits, skills which were useful as vocations or even temporary vocations, confidence in positions of leadership, and attractions to (or antipathy for) manual tasks would be important data for curriculum design in any self-help school. Follow-up studies will begin to provide a better understanding of the utility and appropriateness of manual labor programs in industrialized societies.

2) A cost/benefit study should be a priority of one of the American manual labor schools, constructed to be generalizable and useful for others interested in manual labor programs. Most of the historical literature is vague in the details of cost-covering, as are many who operate present-day programs in America. We might follow the lead of our African counterparts and illuminate the literature of manual labor with some specifics concerning costs. It is possible that more school administrators, parents, teachers and students would find a program of manual labor attractive and desirable if more was known about actual costs and savings. At the present time, too little is known about the financial aspects of manual labor programs to provide assurances to those interested in exploring this alternative that significant savings do occur.
3) More information is needed concerning programs in other African nations and other developing countries. On-the-spot studies of various programs similar to what Court has begun with polytechnics need to be conducted in several developing countries. Those dimensions of self-help programs which are unique and those which apply to all must be isolated, analyzed and described. As more experiments with self-help programs are tried and experience is accumulated under a variety of economic, political and cultural situations, it becomes increasingly important for the programs to be aware of lessons being learned elsewhere. In-depth studies of a series of programs could lead to the development of a "catalogue" of alternative models based on experience which would offer some choice to administrators of developing countries as they search for ways to increase educational opportunities at lower costs.

4) Research is needed to develop alternative curricula for courses which can serve as vehicles for discussion of the program in American manual labor schools. The creation of pilot programs both at Berea College and Warren Wilson College could lead to stronger programs at both institutions. The rationale for a labor program, a study of the history of manual labor programs and their role in various cultures, discussions concerning day-to-day problems with the job, co-workers and supervisors should lead to a stronger labor component. The development of pilot programs could do much to increase student motivation for manual labor in these schools by clarifying the intent and priority given to the program.
5) Creating an index or inventory of labor/learning programs would be a step forward for the literature of self-help, manual labor programs. An up-to-date listing of schools and projects in the United States alone would help others across the country to obtain the information they need. There are scores of programs accumulating valuable experience which currently operate in isolation, without the knowledge of each other's existence.

Questions to Consider: A Preliminary Checklist

Until such an index of programs could be developed, the following questions might serve as a preliminary checklist for those interested in creating a self-help educational program based on manual labor. These questions are drawn from the experience represented in the African and American cases, as well as the earlier examples of manual labor programs cited in Chapter II. Perhaps these questions can serve as a first step in the creation of a handbook which would establish guidelines for examining the self-help potential of educational settings. The checklist might also be useful to consider at points along the way as the program is developed.

1) Why have a manual labor program? Although at this point the answer might seem obvious to prospective labor program organizers, it is important to answer the question as specifically as possible in phrases other than the few ritual sentences usually found in school brochures. As has been discussed, the responses will be either for
educational or financial reasons—or both. If both rationales are the basis of a program, it should be made clear to faculty and students who participate in the program which of the two is to be given priority. Since the two reasons may come into conflict, a clear understanding of priorities in advance will help resolve the occasional practical and philosophical dilemmas which may arise as the program gets underway.

2) If an educational rationale is part of a self-help program, then the following additional questions need to be considered for both industrialized and non-industrialized settings:

a) Is the educational thrust to be in the direction of skill training or "character-building" responsibilities (i.e., those tasks which emphasize leadership, decision-making, independence, and cooperation)? Or, are both aspects to be emphasized?

b) Concerning skill training, will the students be given diverse experiences in a number of skills with the intention of giving them a broad background, or will they be encouraged to specialize in only one or two? We have seen that particularly in developing countries the desires of students may conflict with market demands. How will students be given
choices and, at the same time, meet those demands which are most needed by the country?

(c) If "character-building" activities are to be the primary rationale for a manual labor program, what kinds of experiences will be arranged to foster the development of independence, decision-making and learning cooperation?

d) How will the school know that these elements of "character-building" are outcomes of the program? How is it determined that the students learn greater independence, know better how to make decisions or cooperate more with others?

e) Can skill training and "character-building" experiences be unified? If so, how?

(f) What will be the range of activities and services offered by the program? Will instruction be individualized or carried out in teams or small groups? Should topics be interlocked sequentially or arranged with options and variable time-spans?
g) Are the goals of the manual labor program clearly understood by the staff? Will they regard the school as a second-class substitute, compared with other more traditional institutions? What steps can be taken to counteract this feeling if it develops?

h) How will the students be selected for the program? Should exams be used? Will students (and parents) be interviewed so that the objectives of the program are clearly understood by all? In the spirit of an actual work situation, should a contract be signed? In a developing country, should students be handled on a first-come, first-served basis?

i) What course(s) will be arranged to provide an opportunity for students to discuss the psychology, philosophy and history of labor? In a non-industrialized setting, will a course be offered dealing with commerce, basic economics and the role of self-help in national development?

The next two items apply specifically to programs in developing countries:
j) What basic courses (English/French, math, business practice) should be offered? What percentage of the students' time will be spent on these subjects as opposed to skill training and work?

k) Will the skill training focus on self-employment or wage employment? How will the opportunities for each be assessed and what procedures will be instituted to insure that supply does not exceed demand?

3) If a financial rationale is part of a self-help program, then the following questions should be considered:

a) What form of student remuneration will be used? Should the school pay students directly? Should the institution use student labor to offset operating costs, use the labor to produce goods for market, use it as a community service to attract outside funding, or should the school create a mixture of two or more of these plans?

b) If a system of direct payment is employed, should all of the students be paid at the same rate, or should an "incentive" program be implemented, differentially paying students
with special skills or who assume special responsibilities? Will students have an opportunity to earn additional money by working extra hours each week or during vacation periods?
c) Will a system to study the costs and benefits of the work program be instituted at the outset, to enable project managers to know whether the savings obtained through student labor meet expectations?
d) To what extent should efficiency (and, therefore, financial returns) be sacrificed for student training experiences?
e) How will outside funding for the institution affect the program? Should any of it be tied directly to activities of the students (specially commissioned projects or services)? Should students be encouraged to assist in the solicitation and management of these and similar special projects as a part of their financial and business education?

4) In addition to the above questions which cluster around educational or financial issues, there are several general questions which relate to other aspects of self-help programs. The first six are
applicable to either industrialized or non-industrialized settings. The final four specifically relate to questions which must be considered in developing countries.

a) What are the sources for teachers for the program? How will it be possible for teachers to be located who possess the combination of skill training, teaching ability and academic interests? If all of these qualifications cannot be found in each staff member, what is an appropriate "mix" of teachers with academic or practical skills?

b) What supports will be built into the program to enable the staff to cooperate closely and link practical and academic work? Should special in-service programs be offered to help prepare staff in both the content and methodology of those skills being taught? How will the school help the staff with problems (scheduling and content) which will inevitably occur at the interface of labor and academics?

c) What institutional supports and rewards will be established for the staff in return for working with the labor program? Will the director as well as other administrators of the project
contribute a certain amount of their time to supervision of and participation in the tasks which students and faculty carry out? Will staff members' efforts with the manual labor program gain equal recognition next to those who take on more academic responsibilities when salaries and/or promotions are determined?

d) What planning should be done to adjust goals, priorities and tasks as the institution matures? As has been described, the frontier spirit, which initially provides considerable momentum to the formation and development of a school, begins to decline as the institution becomes established and routines develop. How will schools deal with the seeming inevitability of this cycle? What will be done to keep the spirit of the early days alive, commitment and enthusiasm high?

e) Will an on-going evaluation system be put into effect to enable students, teachers, administrators and parents to regularly assess the value of the program and offer suggestions for modifications as they seem to be appropriate?
f) Will a follow-up project be built into the program from the outset to enable staff, students and the public to understand the impact of the program on the individual student and the society?

The final four items refer specifically to schools or projects in developing countries:

g) What will be the implications of a self-help program? Will this type of project draw vital resources away from other areas which may be more important? Could the job be more efficiently accomplished by technical training institutions?

h) What is the government's attitude toward self-help schools? Does it view the goals of these schools as significantly different from other schools in the country? How will this attitude affect public opinion about the program (parents, students, future employers)? How will the government's position affect funding?

i) How can the government assist in the support of the program? Can the various agencies be coordinated to assist the institution's efforts
without overwhelming it with paperwork or contradictory requirements?

j) Who in the community should be selected for a board of advisors or management committee? Is such a committee always necessary? Under what circumstances might it be desirable to by-pass this step?

This list is far from complete, but it represents a beginning of what is needed for a systematic set of guidelines for those interested in exploring the creation of a self-help, manual labor program. These guidelines could be incorporated into a manual which would not be so much of a "cookbook" for prospective self-help programs, as it would be an inventory of options which would permit choice among a variety of alternatives. Such a handbook could consist of the numerous different responses to questions like those above which emerge from a variety of projects all over the world.

The Future: Where to From Here?

As this study has shown, some important developments in manual labor education are underway in each of the programs discussed in the United States and in Africa. The American programs reflect various accomplishments and problems which are distinct from the issues currently being encountered by African projects. The three American schools considered in this study find themselves in transition; where
once financial needs and basic survival dictated the priorities, these programs now face new challenges to keep their programs vital and stimulating to students. The future success of these schools depends, for the most part, on the institutions' ability to be flexible and adapt their programs as industrialized society's priorities shift. Today, learning how to learn receives as much emphasis as the accumulation of factual knowledge. Manual labor programs are a natural vehicle for creating educational opportunities in which students can make decisions, take unique responsibilities and learn from experience. Career education is also fast becoming a new priority in the United States, and there are numerous ways in which manual labor programs could contribute to this effort. On-the-job training is hard to match for providing the in-depth experiences required for successful career training, and manual labor activities are ideally suited for these programs. Finally, a recent preoccupation of those who study life in 20th-century America is the growing amount of leisure time which is becoming available to most citizens. Manual labor could be a major part of any effort designed to create more alternatives for people who wish to make use of extra time. A follow-up study about graduates and what they do with the training they receive would begin to clarify some of the present ambiguities concerning the impact and utility of current training.

The challenges and opportunities facing the African programs are different but equally as important. As with manual labor projects everywhere, these programs must reflect the priorities of the economic
and social settings in which they exist; the fundamental task ahead for the African programs is determining the extent to which local job markets can absorb program graduates. An African follow-up study must be done to collect some information about the success of graduates who seek employment in the modern sector, as well as those who become self-employed in rural areas. The programs in non-industrialized settings must, of necessity, produce graduates who can find employment, and their future will be dim if this basic requirement cannot be met. Assuming a reasonable percentage of program leavers are able to achieve employment, cautious expansion of these manual labor projects would seem to be in order. Coordination through a national headquarters which had close contact with ministries of labor and manpower planning would also seem to be a prerequisite for development of these manual labor schools. It is far too early for accurate predictions about the extent to which these programs could be expanded; but if the appropriate research is carried out, it is possible that manual labor could develop into a viable alternative for skill training, basic education and community improvement.

The opportunities exist. What is needed now is a world-wide exchange of information about educational programs, staffing patterns, and cost-reduction. The projects discussed in this study are only a fraction of the experience which is being accumulated around the globe with self-help and manual labor. A combined effort of workshops, project-to-project consultation and judicious use of media could expand the horizons of educators and provide support for those in the
field who wrestle with the day-to-day realities of making these programs viable. The commitment on the part of those who are overseeing present programs is unquestionably strong. It is time that others joined the effort.
# Appendix A

## Preliminary Interview Schedule

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1. What kind of student comes to **(school)**?

2. Rough breakdown of parents' occupations (fathers)? Education?

3. Any knowledge of the rural/urban breakdown?

   Percent from local area --

4. Tuition? Additional costs?

5. Percent on scholarship?

6. To the best of your knowledge, are students attracted by labor aspect of program?

7. Present labor format:

   Types of jobs

   Numbers of students in each job category

   Hours worked per week
8. Does student have choice of job?

9. Are there special jobs, where more skills are learned?

10. Are jobs rotated? How frequently?

11. Is academic credit offered for any of the work?

12. Is any formal link attempted in some jobs, between the classroom and the job? (i.e., agriculture classes leading to agricultural work)

13. Are any students certified as a result of their work experiences (teaching, apprenticeship programs of any kind)?

14. Any problems (historical or present) with unions?

   How has this been handled?

15. How long does it take for a student to learn a job?

16. Who does the teaching and supervision?

17. Have community resources (craftsmen, housewives, businessmen) been used as teachers or supervisors?

18. What are the ways jobs have changed as the school has grown?

19. Are there any off-campus jobs? Their nature, organization, time and supervision?
History

20. What literature on the school exists (for the general public)?

21. Has any "in-house" study of the school been done?

22. When did the labor program get started?

23. What were the early projects?

24. Were all the students expected to work, or was it only for the "needy"?

25. What were the hours per day/week?

26. How often were jobs changed?

27. Was there a special supervisor assigned to labor?

28. Was faculty support an issue?

29. Did faculty do any manual labor for the school?

30. Major trends in the program between early days and now?

Educational Philosophy

31. Is there a stated rationale for the labor program?

32. Has it changed over time?
33. How is the rationale supported and reinforced?

34. In your opinion, are these supports effective?

35. How is labor viewed by faculty and staff?

36. Any differences between how labor program is viewed by students of different ages and school years?

37. Has any follow-up been done with graduates to determine their attitude towards the work program?

38. Any noticeable differences between different types of students?

Between students ten to twenty years ago and today?

Finance

39. Has a cost/benefit study ever been done to determine the break-downs and tradeoffs?

40. Has this ratio changed over time?

41. How is this system administered?

Are students paid by hour, or does a certain amount of labor reduce tuition by lump sum?

Can the student work overtime for more money?

42. How is cost related to "outside forces" (minimum wage, G.I. Bill, etc.)?
43. Are grants made to the school for special work projects?

**Students' Opinions**

44. What do you think of the work program?

45. How many jobs have you had?

46. Is job training and supervision adequate?

47. Are work experiences linked in any way to academic work?

48. What changes would you make in the school's labor program?

Does student labor make sense for this school today?

**The Future**

49. Can this period in the school's history be characterized in any special way?

50. How do you see the future of the labor program for the school?

51. What questions or major issues have not been touched upon in this interview?
APPENDIX B

VILLAGE POLYTECHNIC PROGRAMME PLANNING GUIDE

This is a guide designed to help each Management Committee decide upon a programme for its Village Polytechnic, based on the economic needs and opportunities in its community and on the needs of the unemployed school leavers in the area.

Before using this guide, the Management Committee should decide just what area its Village Polytechnic serves. In most cases, this area will be smaller than a location.

Name of Village Polytechnic __________________________ Date __________

PART I: THE COMMUNITY AND OUR CURRICULUM

1. What area does this Village Polytechnic serve?

2. Within this area where does our money come from?
   a) How are people occupied at present?
      -- main jobs
      -- other jobs
      -- seasonal changes
   b) What do people from our area sell outside the area?
      -- how much?
      -- is it profitable?

Can these activities be improved to bring more money into our community? If so, how?
3. Where does our money go?

a) What work can we not get done in our community?

- building
- furniture making
- making of clothes
- shoes
- repairs to tools
- bread
- simple accounts
- making of agricultural equipment (wheelbarrows, carts)

List any other:

b) What do people buy outside our area?

Can some of these things be done in our community in order to keep our money from going to the town? Which?

Can our Village Polytechnic train young people to do these things? Which?

4. What training is presently available for people in our area outside the Village Polytechnic?

-- How many people use this training?

Is there a system of informal apprenticeship in the local market?

-- What trades offer it and for how many people?

How can we make use of these existing training facilities?

Is there something we should NOT train people to do in order to avoid training too many people in our area in a certain trade? What?
5. Who brings in services from the outside and what services?

-- Central Government Agencies

-- Local Government Agencies

-- Business

-- Other

Can these groups give us any help at our Village Polytechnic? How?

Can we take advantage of resources provided by these groups? Which?

6. What major plans are there for the development of our area? (e.g., water schemes, etc.) When?

-- Central Government

-- Local Government

-- Self-Help

What type of labour or skills will be needed for these development projects?

Can we train young people in our area for this type of labour?
PART II: THE TRAINEES

1. How many primary school leavers are there in our area each year?

Boys ___________ Girls ___________

How many secondary school leavers or drop-outs are there each year?

Boys ___________ Girls ___________

What happens to these people? What are they doing now?

How many people 16 years and older need training?

Boys ___________ Girls ___________

2. How many young people have left the area? What are they doing?

Do they have the necessary skills to find employment?

3. Do young people in our area participate in community activities?

At what age are their ideas accepted?

In what kind of money-making activities would our trainees be accepted by people in the community? Make lists for boys and girls.

Boys ___________ Girls ___________

Will they be accepted working alone or working in groups or as apprentices?
4. If we have trained people already, what are they doing now? Where?

Are these people successful? Are they using the skills they learned at the Village Polytechnic? Give details.

If they are not successful, how should we change our programme? Give details.
Appendix C

Village Polytechnic Work Opportunities Guide

After the Village Polytechnic has made a thorough survey of the local area using the Programme Planning Guide, each instructor and his trainees should make another survey to identify specific work opportunities that exist in the community in their trade.

When trainees are gathering information for this Work Opportunities Guide, they should go out into their community and talk with people. It may take as many as four or five days to complete this project.

<table>
<thead>
<tr>
<th>Trade or activity</th>
<th>Number of trainees</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Name of Village Polytechnic Date

1. Draw a map of the community that the Village Polytechnic serves. This is the area from which the members of the Management Committee come. It may be a sub-location. It may be larger. The map does not have to be an accurate land survey map -- but it should include the following:

- roads
- trade or market centres
- businesses (dukas, fundis, etc.)
- schools
- churches
- training centres
- social centres
- factories
- co-operatives
- government offices
- main areas where people live
- etc.
2. Who are the local fundis who are working in our trade?
   -- How many are there?
   -- Where do they work?
   -- Are they successful?
   -- What are their problems?
   -- Can they give us advice? What is it?
   -- Can they give us assistance with our training?
     What kind?
     When?
   -- Can they offer us employment?
     What kind?
     When?

Local fundis can explain the problems that they face in their work. This is important for trainees to know, since they might have some of the same problems.

3. Who are the local people who might buy our products?
   -- Where do they live?
   -- Where do they work?
   -- Where do they do their shopping?

Be sure that all of these places are marked on the map of the community.

4. Who are the local businessmen and traders?
   -- Where do they work?
   -- Can they give us advice about starting a business?
     What is it?
-- Can they give us assistance with our training?
   What kind?
   When?
-- Can they offer us employment?
   What kind?
   When?

5. What government departments or officers are involved with business and work in our trade?
   -- Can they give us advice? What is it?
   -- Can they give us assistance with our training?
      What kind?
      When?
   -- Can they offer us work, or contracts?
      What kind?
      When?

6. What training centres offer instruction in our trade in or near our community?
   -- Can they give us advice? What is it?
   -- Can they give us information? What is it?
   -- Can they give us assistance with our training?
      What kind?
      When?
7. What other local institutions, such as schools or churches, might be able to give us work or contracts?

-- Where are they?

-- What employment do they offer?

8. Mark on the map of the community the places where trainees can find work in their trade while they are training and after their training.

Keep in touch with these customers and potential customers!
APPENDIX D

PROGRAMME FOLLOW-UP SHEET

(To follow Programme Planning Guide)

Name of Village Polytechnic

1. Skill to be offered

   (USE ONE SHEET FOR EACH SKILL TO BE TAUGHT.)

   -- How do we know that this type of labour is WANTED in our area?

   -- How do we know that the demand for this service is not already being taken care of by other people in our area?

   -- How do we know that people can pay for this type of labour?

2. How many trainees will be taught this skill?

   -- How do we know that there will be enough work for the number of people we are training?

   -- How do we know that this many local youths are available for training?

3. How long will this particular workshop run; e.g., one year, two years, six weeks, eight weeks?

   -- Why does this workshop take the amount of time that we have decided upon?
4. Will this workshop be offered (a) one time, (b) occasionally (every 3 or 4 years), or (c) continuously?

   -- Why?

5. What space or buildings do we need in order to instruct in this skill?

   -- Do we have this space?

   -- What?

   -- Where?

   -- If not, how can we get it?

   -- Can we use space not at the Centre for this subject by doing extension work?

   -- By arranging apprenticeships?

6. What staff will we need for this skill?

   -- How can we get the necessary staff?

7. What equipment and materials do we need for this skill? List.

   -- Do we have such equipment and materials at the Village Polytechnic?

   -- If not, how can we get it?


Handbook for Village Polytechnic and Youth Centre Instructors, prepared by the Youth Development Division, Department of Social Services, Ministry of Co-operative and Social Services, Government of Kenya, in conjunction with the National Christian Council of Kenya, April 1972.


