Stories in Pictures
by Richard Douglass

"GETTING READY FOR SCHOOL"

Agricultural Education
Volume 46
October, 1973
Number 4

UPGRADING
INSTRUCTION
APPLICATION
RECOGNITION

Theme — CAREER EDUCATION:
Are You Meeting The Adult's Needs In Your Community?
ADULTS NEED CAREER EDUCATION TOO

The first reaction to a title such as the above is, (1) "Why career education for adults?" (2) "Why adults will probably hold jobs now," and (2) the priority should be to prepare the young person in school. If we act on those assumptions, many adults will not have a chance to participate in systematic educational programs which could prepare them for (1) advancement, (2) horizontal job change, (3) a new job, (4) or job adjustment because of problems encountered.

The adult is usually self-motivated toward a career. If he is currently employed and is not, intrinsically for advancement in his present occupation, the adult may be "uprooted" to learn the capabilities of the local school. Only a good community occupation-al analysis will uncover this clientele group. In communities where adult education has not been conducted, the adult may be "uprooted" to learn the capabilities of the local school. The early recommendations following the establishment of a citizens advisory committee may be an adult class series, mainly because by getting "next to the school program" the adults could see how they would benefit.

An important point to remember, especially for the beginning teacher, is that all adults are participating in their vocational programs. Commitment to the vocational agriculture program is strengthened and (2) the greater the needs of the clientele group may decide to participate, when only one teach- er or currently employed. This dilemma is not easily solved.

On the one hand it would be good to know there is more demand for the school's vocational education services than one teacher can handle, but the more difficult question is how to approach a solution.

I would submit that a local Board of Education would look most seriously at programs for expanding programs and facilities as a result of the National Education. The Board of Education would look at the following programs at the following levels:

1. A high school program for adults to be offered on a part-time basis to give adults an opportunity to complete their high school education.
2. An evening program for adults to be offered on a part-time basis to give adults an opportunity to complete their high school education.
3. A weekend program for adults to be offered on a part-time basis to give adults an opportunity to complete their high school education.
4. A summer program for adults to be offered on a part-time basis to give adults an opportunity to complete their high school education.

The adult needs career education and will participate in it if the program is well planned and executed. The adult is motivated to learn, and if the program is well planned and executed, the adult will participate. The adult needs career education and will participate in it if the program is well planned and executed. The adult is motivated to learn, and if the program is well planned and executed, the adult will participate.
ADULT EDUCATION IN AGRICULTURE AND CAREER EDUCATION

The Real Problem

Educators from all segments of the agriculture educational system have expressed concern for adult education. Recent developments in the United States Office of Education (USEOE) have aimed at re-focusing the goals of American education. Bill Richardson, Assistant Professor Agricultural Education Purdue University

The adult education face of career education for adults is vaguely defined, and career education for adults in agriculture is completely obscure which seems to place adult education in the "rumbled seat" of the career education movement.

Under the USEOE in career education for adults there is a need for confirmation, unique, to not mention the developments in career education for adults in agriculture. As observed by this writer, it seems to focus on a K-12 approach to education.

Due to the foregoing, a question that arises in many minds is, "What is career education for adults in agriculture?" This question is so broad that considerable variation exists as to the possible solutions to this problem. This writer will not attempt to provide such an answer. However, there are some items that must be internalized in the thinking of all agricultural educators before an attempt can be made to develop new programs.

One of the first items that must be undertaken by agricultural educators is to commit ourselves to adult education in agriculture. The rationale behind the educational programs being conducted in the area of adult education for adults in agriculture does not demonstrate the commitment. Holding an adult class for the sake of improving the image of a local department in the eyes of supervision, teacher educators, and teacher peers does not in itself provide a genuine commitment to adult education.

Agricultural teachers, teacher educators, and adult educators should be asked if we are doing in the name of adult education and analyze these activities in terms of the career development of the adult. This analysis may reveal a need to redirect the goals and objectives of these programs. It may reveal to adult educators what skills to teach to adults that enhance their occupational development, then we can provide a career development service. Therefore, educators in agriculture must commit themselves to the concept of career development for these adults before career education for adults can take place.

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BOOK REVIEW


This is a text particularly covering the concept of soil education, physical properties and productivity. Included is essential information concerning soil water, organisms, organic matter and the chemical and mineral properties of the soil. The text given to soil genesis, soil survey, and the identification, and geographic of the world soil is most interesting and stimulating. The study also includes intrinsic requirements of plants, the composition, manufacture, and use of fertilizers, and the various means of measuring. Problems of soil erosion are point taken up as well as methods of correcting soil erosion and improving crop yields. The soil as a living organism has been included. The innumerable seeds of soil engineering, soil survey, ecological balance, food supply, and social status of the soil is well considered. Good taste.

The glossary is a valuable addition to the text. The glossary of an acre in soil science education. If D. E. Fick is serving as Professor of Soil Science, Michigan State University, the time of writing, L. M. Brinton was serving as Assistant Professor of Soil Science and former Director of Agriculture Stations, Michigan State University. Due to their past educational experience and their collective experience in the editing of this publication, the authors are well qualified.

This book would be an excellent reference for Vocational Agricultural classes. Due to the effective use of the publication could be made by high school and junior college students throughout the world, however any student could gain much from the material. A good one.

THE AGRICULTURAL EDUCATION MAGAZINE

OCTOBER, 1971
Joliet Junior College’s Vocational Programs
In The Illinois State Prisons

E. Kenneth Wright, Jr. 
Associate Dean of Instruction 
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Introduction
The years correction institutions have pondered over the ways in which those persons in prisons, so that upon reentry into society those persons might become productive individuals. The institutions over the country have done little to nothing about the program; yet there is a lack of funds and human resources or maybe we good citizens don’t feel that prisoners are worth the funds and effort. However, the reason is not clear to us why the correction institutions have not been clear on this concern.

Rationale
It is accepted and sometimes realized that penal institutions have lagged far behind in educational rehabilitation programs for their inmates. This fact is especially disturbing in view of the fact that prison populations are on the increase. This population is in need of comprehensive and intensive rehabilitation services if rehabilitation and successful return to society is to be realized.

In this regard, the country, prison industries do not reflect the kinds of job experiences that one can find in the free market. Consequently, the transferability of skills obtained during the period of incarceration is impossible.

Chief Justice Warren Burger is a vocal advocate of reforming the penal system to stress rehabilitation rather than revenge. He believes that we should stop thinking of criminal justice as a matter of punishment and arrest and ends with a final judgment of guilt. Justice Burger believes that there is a lack of emphasis placed on vocational training in American Prisons. “It is no help to prisoners,” he said “to learn to be canty pressers if pressy presers are a glut on the labor market.”

Objectives
The primary objectives of the Inmate Training Program are to prepare selected inmates for entry level positions as automotive mechanics, welders, draftsmen, machinists/machine operators, accountants (bookkeeping background), and food service workers (chef, cook). And there are other important objectives:

* To establish a model program designed to fit the particular educational needs of a prison population.
* To afford inmates the opportunity to acquire job skills that will enhance their ability to find temporary work after parole.
* To decrease recidivism rates.
* To develop a model for multi-agency cooperation addressing the problems of incarcerated members of society.

We provide college courses applicable toward Associate of Applied Science Degree. Joliet Junior College focusing instruction on entry level skill attained in accounting, automotive repair, automotive service, machining production technology, mechanical design technology and food service for three of the Illinois State Penitentiaries, Stateville and Pontiac.

* To identify job placement opportunities for those inmates from the penitentiaries who graduate from the various programs prior to graduation for reason of being paroled.
* To provide up-to-date training facilities for the instructional programs—accounting/data processing, culinary arts, automotive service, mechanical production technology and mechanical design technology.

We gather data on inmate performance to improve future student selection, advisement and placement practices related to inmate training programs.

* To substantiate the value of a multi-agency cooperation in providing meaningful training experiences for inmates.

To develop a plan whereby the operation of the various training programs can be a regular funding basis after June 30, 1973.

Procedures of Implementation
The strength of this project request lies in making approved vocational programs available to the inmate population of Illinois State Penitentiaries at Stateville and Pontiac Prisons.

During the contract period (October 11, 1971 — June 30, 1973) facilities will be made available to the operating agency for college credit applicable toward the following associate degrees: (1) Accounting, (2) Automotive Service, (3) Culinary Arts (4) Mechanical Design Technology, and (5) Electrical/ Mechanical Production Technology.

Instruction with these programs is focused first on entry level skills in the occupational areas of: accounting/data processing, automotive mechanics, and food service. The program is made available to the vocational programs according to the Illinois Employability Service is rated from “above average” to “Marginal” and is considered as completing the employment vacant. And this is consistent with the interests of inmates being released to society.

The Director of the Inmate Training Program from Joliet Junior College has been closely worked with the prisons and selected members of the prison staff to identify the facilities needed to serve the inmates. Space provided for these programs in the form of classrooms and laboratories was modified physically as required. Recognizing the need for long range consideration, Joliet Junior College is prepared to transfer ownership of all equipment purchased as a part of this special contract effort to the Department of Corrections after June 30, 1973.

This plan, the success of which is largely dependent upon the cooperative funding outlined in the proposed (Concluded on page 62)
ANOTHER STEP FOR ADULT EDUCATION

Marcia Headrick
Instructor of Horticulture
Texas Department of Corrections
Gorsc Women's Unit
Huntsville, Texas

Texas inmates of the women's prison unit can now be paroled or discharged with a newly acquired valuable skill in horticulture.

The "free world" schools, as they are called by the inmates at Gorsc, the prison for women in Huntsville, Texas, are not the only places one can be trained in the field of horticulture. The horticulture program began July 1, 1972, and consisted of 50 women ranging in age from 20 to 67 and crimes ranging from minor offenses to murder. The program was designed to allow the students to be divided into five groups and rotate among four teachers. All teachers are employees of the Windham Independent School District, which is limited to and encompasses all of the education programs (grades K-12) in the Texas Department of Corrections, TDC. For instance, group I, on Tuesday mornings attends Mrs. Mary Jefferson's class who teaches academics; Tuesday, group I is with Miss Terry Sims, who teaches occupational guidance; Wednesday, group I comes to Miss Headrick for horticulture theory and greenhouse experience. On Thursday, Mr. Robert Linn has group I outside practicing the theory learned in the classroom the previous day. On Friday, group I goes to their state assigned job in the prison. Lest the wrong idea be obtained, it should be understood that these women must work every day as well as go to class. All the classes are set up in the afternoon from 12 p.m. to 6 p.m. Each morning the women must spend four hours at their state job whether it be in the kitchen, garbage factory, laundry, yard crew or various other jobs at Gorsc.

The classes will soon be moving to the new 400'x100' greenhouse and head house. The head house will be divided into a classroom and work area, while the 20'x100' greenhouse will be used in learning experience as well as helping to aid the prison system in maintaining its position as self supporting.

Each unit of TDC has a goal to maintain. The horticulture class is to be able to aid the units in reaching this goal by supplying shrubs, bedding plants, and also in landscaping how does one feel when he starts teaching at the Windham School District? Most teachers are pretty nervous! However, for this teacher, on her first day at Gorsc she found herself less nervous than at the first day of student teaching under vocational agriculture teacher, Rex Stephens at Stephenville, Texas. At a matter of fact this teacher concluded that it may be safer working in a prison than in some of the public schools today. The women enrolled in this class are no different than anyone else; they just have not had the same opportunities. They turned to means outside the law and got caught. Hopefully during an inmate's stay at Gorsc she will gain training and experience in some vocational field so she can get employment. One important aspect of the inmate getting a job, which is the hardest to teach, is the desire to work! Horticulture is not the only vocational program at Gorsc, there are six others. A new Treatment Center houses a library, two units in cosmetology, two units in vocational office education, one unit in floriculture, and one unit in home economics as well as several academic classrooms and offices.

A woman, white in Gorsc, can get her training in any of these above fields, a General Education Development (GED), and credit for two years of college. This is one large step in the area of adult education.

THE AGRICULTURAL EDUCATION MAGAZINE

Gary L. Kohls
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Atkinson, Illinois

Career education is the biggest boon we’ve had in vocational education for several years. Career education takes on a wide range of forms and implies a variety of educational programs.

Gary L. Kohls

AG MACHINERY SEMINAR FOR FARM WIVES

L. FIRST SESSION
A. Registration
B. Introduction
1. Why this seminar
2. Instructors introduced
C. Farm Plans
D. Daily Care & Maintenance of Farm Tractors
1. Use of operator’s manuals in caring for machinery
2. Daily care and maintenance of farm tractors
a. Check oil
b. Check tire pressure
3. Proper starting and stopping tractors
a. Procedures for diesel
b. Procedures for gasoline tractors
4. Using the instruments panel to operate machinery
D. Ladies perform checks on tractors provided in shop
5. Ladies go through full procedure of checking tractors & go through starting & stopping procedures
E. Refreshments

II. SECOND SESSION
A. Farm Safety
1. Introduction
2. News articles in papers of farm accidents
3. Movie furnished by John Deere on safe operation of farm machinery, (Ball dance etc.)
4. Discussion of movies & farm safety
E. Refreshments

III. THIRD SESSION
A. Farm Tools
1. Discussion of driving, shifting, and two speed axle operation
2. Demonstration of truck operations in shop by local truck driver
B. Tools Every Farm Wife should have around the house & shop
1. Prices
2. Parts
3. Advantages of tools
4. Uses of tools
C. Care of Lawn Tractors & Mowers
1. Service & Maintenance
a. Oil
b. Air Cleaner
2. Typing of mowers available & advantages (mowers furnished by local drifter)
D. Presentation of Certificates
E. Evaluation & future planned courses
F. Refreshments

Young farm wives learn basic tractor maintenance as a part of their AG machinery seminar.
The agricultural education program examined, (1) We must become committed to adult education in agriculture. (2) We must re-examine the obstacles to adult education on our campuses and the activities of teachers of agriculture. (3) We must not foster the attitude that adult education is something extra. (4) The retraining programs for adult education, in many cases, must be perceived as a commitment to adult education in agriculture. (5) Pre-service teacher training programs must address the concept of adult education.

The five items outlined in this article are concerned as being the real problem that must be solved. These items are: (1) the process of everyday teaching; (2) the process of everyday teaching; (3) the process of everyday teaching; (4) the process of everyday teaching; (5) the process of everyday teaching.

The successful teaching of farm management and the development of a farm management program is dependent on the following factors: (1) the teacher's ability to communicate; (2) the teacher's ability to communicate; (3) the teacher's ability to communicate; (4) the teacher's ability to communicate; (5) the teacher's ability to communicate.

The concept of adult education is a complex one that requires a full understanding of the needs and motivations of the adult learner. The key to successful adult education lies in understanding the adult learner's perspective and adapting teaching methods accordingly.

(From page 79)

Participation Training for the Post Secondary Teacher

Lea Fitchett
Director, Adult Education and Director of Vocational Agriculture Programs, Chillicothe Area Vocational School, Chillicothe, Missouri

Over the past few years learners are being exposed to new ideas and concepts that want to be involved in the learning process. The adult learners are actually pleased to have an adult education program. In a real sense adults are asserting their individuality, and asking for a voice in the entire learning process. The intensity of the interest among adult learners has caused educators to search carefully for possible solutions to this dilemma.

A number of authorities in the discipline of Adult Education such as Benjamin Bloom, who provides the principles of group decision making, One of the most significant benefits that each member of the group is viewed as an important person. His ideas are considered and evaluated by the group. He is himself as a functioning part of the team.

Each session also has a recorder who may be co-leader of the group, and by changing the discussion the effective group becomes more meaningful. Members can see what actually is being done and therefore are better able to stay on the topic. They tend to accept the information which is received from the leader, even if it is not from the instructor.

Element of structure for participatory learning

The basic structure for the decision making process is made up of three parts: (A) Topics, (B) Goals, (C) Outlines.

In order to be educational and stimulative the topic should be stated as a question which must be answered with a "yes" or "no".

The goals of the group must be based on what the group can achieve. The group should not be asked to do the impossible. The goals are the result of the group's desires. The goals should be stated in a clear and specific manner. The goals should be stated in a clear and specific manner.

In order to achieve the desired outcome several steps are explored. The group is encouraged to examine what happens when a group experiences a social attack which is called the outline. The outline or steps may be stated as possibilities, options, or goal-like tasks which define the sequence and content of the discussion. The desirable outcomes of group work are more functional and practical that the modern adult teacher cannot afford to be without them.

Summary and applicability

Benefits which can be expected from participation training over and above traditional methods are as follows: 1. Topics are discussed are always determined by the group, interest and desires of the group. 2. Participants define their goals, which are subject to change as the group steps forward. 3. The responsibility for what is learned is up to each group member.

Group members direct the discussion along lines they wish to pursue.

Leadership is shared, giving each member an opportunity to gain leadership training.

Participation training provides a means of helping members to help themselves by learning how to learn.

Resource materials are used only to the extent needed to understand and solve problems as directed by the group.

Building in-relation factor allows interest to remain high.

Boredom is far practical purges that are eliminated.

A sense of team unity and personal reinforcement is developed.

In short, participation training is highly appropriate for all phases of education, but is particularly applicable for the post secondary adult learner. The busy instructor himself also benefits for this gives him a plan that will be successful in making sound decisions in both the teaching and administrative roles the post secondary teacher.

References

Rogers, Peabody and John McKinley, Participation Training for the Post Secondary Adult, Delmar from, 1964.
CAREER EDUCATION: "Indian Adults"

James E. Watkins
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Tuba City, Arizona

The Vocational Agriculture Department (Tuba City High School), located on the Navaho and Hopi Reservations in Arizona, supports the concept that the student should meet the special needs of the entire community. The Vocational Agriculture Department is meeting the needs of the adult Indians in the community by holding an adult education program in the form of short courses designed to upgrade the adult skills in farming and ranching. The courses have been set up in eight-week blocks of intensive training in specific occupational areas. The courses are offered through the public school in cooperation with the Bureau of Indian Affairs.

The first such course was based on a specific community need which exists in the small farming community situated about one mile south of this community of 6,000 people. The irrigation system that supports the 600-acre farming valley consists of a diversion canal on the Mohopoc with which a feed is from a rock-and-concrete-lined supply ditch. Mohopoc wash runs continuously only during the winter and only when it rains during the summer. Pumping water from the supply ditch when the wash is running, and directly from ponds in the wash when it is not running, is necessary in order to grow Indian corn, melons, and apples during the summer. The corn is very important to both Navaho and Hopi culture, and both the corn and its pollen being used in their ceremonial practices. The crops of corn are used primarily in the one-cylinder type, and maintenance and repair of these is highly important. The pump engines must be in running order so that maximum utilization of the spare water supply can be accomplished each summer.

Eight-week intensive adult courses were designed in specific occupational areas.

A small gas-engine course was obviously needed. The Vocational Agriculture Department realized this need and adopted the "Basic Principles of the Internal Combustion Engine" which had been developed by Dr. Clinton O. Jacob of the Agricultural Education Department at the University of Arizona in Tucson. The course offering was as follows:

**Adult Education: The Internal Combustion Engine**

This is a unit of instruction in the "Internal Combustion Engine" which is the teaching model. The primary purpose of the unit is to acquaint students with the principles of the internal combustion engine operation. The class sessions will include lectures, questions and answers, actual work on engines, quizzes, and tests. After completion of the unit, students will be able to fix and repair small engines they use. The lessons involved in this unit of instruction are as follows:

**I. Principles of Internal Combustion Engines**
II. Identification and Function of Engine Parts
III. Definition of Terms
IV. Valve and Ignition Timing
V. Fuel Induction-Carburation
VI. Magnets Ignition-Distributor Ignition
VII. Spark Plugs
VIII. Taking Accurate Measurements
IX. Using the Torque Wrench in Maintenance and Repair

This unit will equip students with entry-level skills to repair work on small gasoline engines. The class will consist of eight weeks of meetings. The class meetings will be from 6:00 p.m. to 9:00 p.m., on two nights each week for a total of 40 hours.

**Schedule of Course Topics**

1st week—Principles of Internal Combustion Engines
2nd week—Identification and Function of Engine Parts
3rd week—Definition of Terms
4th week—Valve and Ignition Timing
5th week—Fuel Induction-Carburation
6th week—Magnet Ignition-Distributor Ignition
7th week—Taking Accurate Measurements
8th week—Using the Torque Wrench in Maintenance and Repair

The class was held during the winter just prior to spring planting and 20 adults from Tuba City and the surrounding area were enrolled. Many of the students repaired their own pump engines and these were put in use irrigating their small farms. After completion of the course, the students worked in the maintenance and repair of Vocational Agriculture Department engines. The class offered by the Tuba City High School Vocational Agriculture Department, utilizing this principle, has done much to make a lasting impression on the members of the community, as well as to meet their needs.

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**FARMER TEST PLOTS CAN HELP UPGRADE ADULTS**

Arnold Carlson
Wells Voigt Farm Management Inst.
Wells, Montana

The basis for a good Farm Management program must be the use of the analysis on the individual farm operation. However, along with the individual farm analysis there are many other such analyses which can be used in his Farm Management program.

One set of tools that has been used by the Wells Voigt research program for several years is individual field check plots on each member's farm. Each farmer is encouraged, however, to grow a new, a new product or a new idea, on his own farm. When he does this, he leaves a check plot with the old product or old method. In the fall the products and ideas are evaluated to see if the new ideas are worth using on a larger scale. In the winter all the ideas are shared at Farm Management meetings.

By having farmers study and grow new crops, the farmer has to only experiment once, but, he has 50 to 50 different ideas or products in our Farm Management program and how many members participate. This testing allows the farmer to see how the new ideas from the Universities and companies work on his own soil. During the class, all the farming practices, with local weather conditions. Those individual plots are usually just a new crop, a new variety, a new plant, a different rate of fertilizer, a different plant population, a different tillage practice, or a different planting technique.

Farm individual testing most controlled check plots have been conducted on corn and soybeans, wheat, alfalfa, and herbicides. The Wells Farm Management corn variety test plots started when several different farmers were each watching their own corn varieties and trying to do some cross-breeding.

There were no applications and the yields of varieties differed from farm to farm even if the same variety was used on each farm. These farmers, all members of the Wells Farm Management program, decided to conduct some applications with different farmers rather than replicating the same variety several times on the same farm. The results of these experiments are now being published and the results show that the new corn committee was formed in the Wells Farm Management program. This committee set the variety test plots for the corn committee, having a corn variety test plot for the farmer that wants to be in the controlled program. They also have set up some regional trials and ratings for the Farmers Mutual Insurance Companies cooperating. This started with six farmers or six replications and this is the same full season corn in each of their test plots, and 3 farmers all milling varieties. Varieties that are used by the farmers cooperators can add in the new varieties besides those selected by the committee to be test, so they have an opportunity to look at new varieties. The varieties usually selected by the committee are varieties commonly sold in the area and new varieties that look promising. This year there are 36 varieties that are used regularly by the farmers and farmers will have an opportunity to see the results of 10 different varieties on these 10 farms. The varieties are planted on approximately 1/4 acre each so they are machine harvested and machine harvested. The farmer plants the varieties at the same population and uses his normal cutting practices for all the rest of his corn on his farm. By doing this the checks are under normal field conditions. The farmers are not looking for record yields but rather yield comparison checks among varieties. All the data is recorded in his usual manner in his tillage practices, fertilizers, planter settings, plate sizes, etc. Plant population, water conditions, rain, and other factors are kept by the farmers, and unusual conditions during the growing season are recorded. In the full field meetings are held in the field to observe and discuss variational differences and to study the corn practices. At harvest time, stalk breakage, ear loss, moisture, test weights, and yields are recorded.

The results are then published and are published for each individual farm, are averaged by use of the replcations, and published as an average. The published results includes dry hull yields, gives profit as if sold wet from the field, test weight, yellow, ear length, ear width, ear weight, moisture at harvest, stalk breakage, our loss, seed cost, and profit over seed cost. The results are used by all Farm Management companies in the area; companies that request the published data. It has been an educational tool because it has allowed us to study all points of view on the different rating, planter plats and settings, dates of planting, amount and time of available rain, ear length, stalk breakage, ear maturity as compared to growing degree days. At harvest time we can study field loss, combine adjustments, test weight differences, drying abilities, etc. The profit side of selling wet corn varies dry corn, discounts, seed costs, seed size and how it affects cost can also be studied.

The half mile meetings are held for all Farm Management members to discuss the test plot results. The members who have the plots serve on a panel to explain what they have observed, and to answer questions about the plots. This brings good discussion on corn varieties and general corn production practices. Later in the winter general meetings are held for all those interested. Meetings have been held in neighboring towns to discuss the differences of the individual farm.

Because field plot checking has grown so heavily in the area the farmers have asked the cooperators if they have an agency that will buy a wheat wagon to be used during the fall for checking plots, not for rainfall but just a kind of check. Last year, the first year the wagon was purchased, over 250 samples were checked. This year the wagon will probably be used to weigh over 500 samples. It can be used for both checking plots and a farmer's crop, just variety checks. Some of these test plots are not planned at planting time but are chosen as the season progresses in the field. When it is discovered that something unusual occurred. An example of this is chemical drift on a soybean where part of the field is affected but not the entire field. These test checks plots is just another tool that can be used successfully in a Farm Management program to supplement the field plots in the analysis. The field plot analysis, however, is still the main basis of the total program.
A CRITIQUE OF RESEARCH IN AGRICULTURAL EDUCATION

Educators generally agree that the proper use of resources, the development and testing of workable theories that will lead to solutions to problems and issues confronting the profession, with the eventual goal of improved program outcomes. In the past, research efforts in vocational agriculture have been criticized as being "narrow, insignificant, and amateurish." 1 It is research in agricultural education that is viewed as having major problems in the areas of identifying real problems confronting the profession? Are we developing and testing workable theories that will lead to solutions to these problems? Is the current emphasis on research "for the sake of doing research," providing teacher educators, supervisors, and teachers with the tools needed to solve current and emerging problems? It is with such questions in mind that I propose to review research recently completed in agricultural education, observe trends, raise questions, and make generalizations concerning its direction and impact on problems and issues confronting the profession.

Current Research Emphasis

Data presented in Table 1 reveal the percentage distribution of 456 studies completed in agricultural education for the past two years. Of this group of 456 studies, 102 were labeled "Students, Occupational Guidance." Approximately 80 percent of these investigations were follow-up studies of former vocational agriculture students who provide valuable information concerning the current occupational status of graduates, rarely provide concrete information about the process of becoming established in their present occupation. Research in this program area should be broadened to include more than occupational guidance. Blake et al.,4 pointed out that, "Occupational choice is a developmental skill. It is not a single act at which young people decide upon one out of all possible careers, but there are many crossroads at which their lives take diverging paths which narrow the range of future alternatives and thus influence the ultimate career choice of an occupation." How do young people make occupational choices? This is a question that deals with the need to provide valid, reliable decisions leading to a career choice. What types of educational experiences should be provided for students that will provide the background information needed to make valid career decisions?

Scope of Research

Of the 456 studies completed during the 1969-70 period, 38 percent were studies of problems covering large geographic areas within a state, 43 percent of the studies were statewide in scope, involving several states, and six percent were national in scope. The fact that 95 percent of the studies completed were either local or statewide in scope suggests that researchers in agricultural education are identifying real problems confronting the profession and are attempting to find solutions to them. Scene would argue that such an emphasis on research has little cumulative effect, and we are not making progress. When one realizes, however, that the vocational agriculture programs vary state by state and community to be geared to individual communities, such an emphasis seems quite appropriate.

A real need exists to expand research efforts in agricultural education to include both regional and national efforts. While there are program differences among the states and communities within states, there are many problems that are common and the tendency to recognize the nation should require the attention and combined efforts of researchers within those regions.

Staff Involvement in Research

Data presented in Table 2 reveal the percentage distribution of studies conducted by staff members and graduate students. As one would expect, a large portion of the research completed was done by graduate students in agricultural education. It is interesting to note the increase in percentage of studies completed by staff members. Thirty-two percent of the studies were conducted by staff members with the regional or national in character and 46 percent were statewide studies. Approximately one-third of the studies were continuing studies, whereas the remainder were completed to a better understanding of these basic problems. The largest group of studies conducted during the past two years were for the purpose of, "Students, Occupational Guidance." Approximately 80 percent of these investigations were follow-up studies of former vocational agriculture students who provide valuable information concerning the current occupational status of graduates, rarely provide concrete information about the process of becoming established in their present occupation. Research in this program area should be broadened to include more than occupational guidance. Blake et al.,4 pointed out that, "Occupational choice is a developmental skill. It is not a single act at which young people decide upon one out of all possible careers, but there are many crossroads at which their lives take diverging paths which narrow the range of future alternatives and thus influence the ultimate career choice of an occupation." How do young people make occupational choices? This is a question that deals with the need to provide valid, reliable decisions leading to a career choice. What types of educational experiences should be provided for students that will provide the background information needed to make valid career decisions?

Design and Methodology

A review of Table 3, which is summarized in Table 3. One concludes that a situation of status quo exists and that research in agricultural education is very "backwoods." This impression is born out by the fact that 80 percent of the studies completed during the 1969-70 period were ex post facts and survey studies. Only 12 percent were experimental in design and considered "controlled looking." One would be in error to assume, based on the strong emphasis placed on ex post facts and survey designs, that the field has not progressed to a point where sophistication and soundness. The problem, sources of data, purpose of research, and other such factors should dictate the selection

Agricultural Education Magazine

October, 1973

TABLE 1

PERCENT OF STUDIES COMPLETED BY PROBLEM AREA

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<td>Total</td>
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*Percent distribution of North-American Region reported by E. H. McCracken in The Agricultural Education Magazine, December, 1970.*

TABLE 2

PERCENT OF STUDIES COMPLETED BY STAFF MEMBERS AND GRADUATE STUDENTS

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*Percent distribution of North-American Region reported by E. H. McCracken in The Agricultural Education Magazine, December, 1970.*
In 1958 when I began teaching agriculture I thought that agricultural teachers should guide the students who enrolled in their classes in the direction of production agriculture whether they were on the secondary level or adult level. Agriculture teachers didn’t suspect that future needs might be somewhat different.

As years passed changes began to take place. Many teachers were hesitant to accept the challenge of change; consequently they were doing a less effective job of educating. Fortunately as the need for change became more apparent, teachers accepted the challenge as it was revealed by the following example. Iohn graduated from the University of Kentucky and got a job teaching agriculture in a rural high school. He moved from one school to another in the county but was unhappy in each position. Finally he went to work for a dairy farm in order to be able to make a living.

John, having little knowledge of farming and wishing to grow beef cattle, presented to me the challenge to change. What could I do for John and Pat? First, additional help was needed to support a beef animal enterprise. Nearby a forty-five acre tract of land had been abandoned and available for only a few dollars. The Morgans enjoy their work saving life. They have time for vacations, time for entertaining friends, and time to really enjoy living. I believe that our vocational programs will continue to expand and improve, and it behooves the agriculture teacher to prepare himself so that he may render a service to all the people in the community where he lives and teaches. Today we hear, not production agriculture exclusively, but a career education with emphasis on agriculture, natural resources, and environmental occupations.

The challenge was met and John bought the land, cleared undesirable areas, and repaired run-down fences. With the help of the ASCS, a pond was built. With the help of the agriculture teacher, John limed, fertilized, and seeded the land to a permanent pasture. The land responded to treatment and soon was ready for cattle. Beef cattle with calves and a good bull were purchased. The Morgans were on their way to a successful enterprise, enjoying life, and making some extra money while they were retired.

Caring for a small herd of beef cattle didn’t take all of John and Pat’s time. Pat became interested in growing a vegetable garden. Hearing about the new horticulture program and greenhouses, John and Pat decided to add a small greenhouse to their operation. Both operations began to grow. Additional land was purchased and extra help was needed in the greenhouse. This created opportunities to hire more people in the community, who were able to work in the community.

A part-time enterprise in retirement became a larger learning experience which contributed to the community.

One of the major goals of the Executive Committee for the National Vocational Agricultural Teachers’ Association (NVATA) is to publish a complete history of the NVATA during the Silver Anniversary year. The research for significant information has revealed several “Happenings” which the author thought sufficiently interesting to be shared with NVATA members.

The NVATA was organized during a special session for agricultural educators attending the 42nd American Vocational Association (AVA) Convention December 1-4, 1948 held in Milwaukee, Wisconsin.

The NVATA is the second National Association organized for vocational agriculture teachers. During the 1959 AVA Convention at Philadelphia, an organization was formed but continued for only two years.

Four NVATA presidents served less than a full three year term prior to their election. Those presidents and their terms as Regional Vice Presidents were: Julian Carter, Wellington, New York (1958-59); Walter Bomeli, Ranger, Texas (1956-61); Sam Stansel, Kansas (1960-64); and Will Ean G. Smith, East Brunswick, New Jersey (1967-68).

The NVATA has had two Executive Secretaries. Lionel G. Cross, San Jose, California served from 1950-1958 and James Wall, Lincoln, Nebraska has served since November 1958.

Six persons have served as treasurer of the NVATA. They were: Jack Smith, Geneva, Wisconsin (1948-50); Lefroy Bunnell, Trenton, Utah (1950-52); Eldon Taylor, Redding, California (1954-58); Paul Mealagin, Lancaster, Ohio (1956-59); Robert Housey, Syracuse, Illinois (1959-65); and Sam Stansel, Kansas (1967-72).

Joe Calhoun, Milland, Texas served as the NVATA Regional Vice President for five years (1950-55).

Two past presidents of the NVATA have been elected vice presidents of the AVA Agriculture Division. They were Floyd Johnson, York, South Carolina (1965-67) and Glen D. McDowell, Plover, Wisconsin (1973-75).

Past president Julian Carter, Wellington, New York, was elected president of the National Association for Supervisors of Vocational Agriculture.

Floyd Johnson, past president of the NVATA was elected AVA president for 1967-68. He is the only vocational agriculture classroom teacher ever elected to that position.

Luther W. White, Northport, Alabama, died while serving as alternate vice president of the NVATA in 1955.

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Two Regional alternate vice presidents were teachers in the same high school. Elmer Oser (1956-58) and Verdie Rice (1958-60) taught vocational agriculture at Williamston, South Dakota while serving as alternate vice presidents.

Earl Mink, Eaton Rapids, Michigan served as alternate vice president for Region IV for six years (1952-58).

W. S. Weaver, Delphi, Indiana served as Region IV alternate vice president for NVATA Region IV. He was elected to complete the unexpired term of George Buchanan, Fort Kent, Kentucky (1960-61) and Walter Bomeli, Ranger, Michigan (1963-64).

NVATA has nominated 175 persons with Honorary NVATA Membership, 63 persons with NVATA Gistations, and 13 agriculture firms with the Outstanding Service and Cooperation Award.

Twenty-three persons serving as NVATA president are still living: Jerry Smith, Genesis, Wisconsin (1930-31) and A. C. Hall, Camden, Arkansas (1951-52) are deceased.

The November issue of the Agricultural Education Magazine will be devoted to the NVATA professional leadership in agricultural education and services provided to affiliated State Associations and individual members. A complete NVATA history is being prepared and will be available at the 25th National Convention in Atlanta, Georgia December 1-5, 1973.

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BOOK REVIEW


This text is written in a clear understandable language utilizing transcriptions, hydrostatic driven and torque converters. Color diagrams and actual photographs aid greatly in understanding these. The text is built on high school and post high school as well as for shop teachers and vocational students. It is designed primarily for use in understanding power trains as they are commonly used to transmit power on the farm and ranch and in industrial machines. Color slide sets (35mm) are needed and expanded to cover the new edition. 155 slides.

Mike G. McDowell
Associate Professor
Agricultural Education
University of Nebraska – Lincoln

THE AGRICULTURAL EDUCATION MAGAZINE

OCTOBER, 1973
IN TEACHER EDUCATION - APPLY "LEARNING BY DOING" WITH ADULTS

J. F. Lawrence, Specialist in Continuing Education, Vocational Agriculture
University of California, Davis
and T. J. Lawrence

Teacher educators, right along with both old and new instruments, are facing very challenging and changing demands to meet the needs of young and old alike. These demands have involved special skills, handicaps or disadvantages. Also, the role of the teacher is changing in order to match the re-ranging responsibilities that will tax his ability to manage resources and supervise his total program properly.

Young, perhaps more than any other type of educational program, requires close cooperation with the community. It prepares and retains youth and adults for gainful employment in agricultural occupations and supplies the means for upgrading their skills. Combining the “learning by doing” student teaching experiences to also include the actual conduct of an adult class can well provide an invaluable learning tool for the total teacher education process in agriculture.

Coordination between the secondary adult evening school, vocational vo-ag teacher and Bureau of Agricultural Education specialist for adult and Young Farmer groups has been achieved. The major responsibility has been to select student teaching resources available during the school year. A list of all the classes of the undergraduate year offered at the University of California, Davis campus. This is in addition to the normal practice of requiring student teachers to observe a Young Farmer meeting or adult class while gaining actual teaching experience and rapport with adults.

Insights gained regarding adult educational needs and demands; confidence gained in working successfully with adults; cooperative efforts realized as a community resource management.

Normally, normally, knowledgeable vo-ag teachers encounter heavy time demands as they achieve job placement and establish themselves in their respective high school programs. Little priority is afforded in the area of adult education. Moreover, the major responsibility of new teachers during their first or second year generally is to prepare to teach adult classes, and it is essential that they be provided with the adult educational purposes and resources available. For a vegetable garden, mini-gardens, dairy, poultry, and meat classes, food and life science with agricultural reference books and other teaching materials available for use in the classroom, and be made available to the class teacher.

Sedentary teaching typically is the prevalent method employed in traditional teaching. Several interesting developments occurred:

1. Certain convalescent patients had to make adjustments to the in-bed and their physical handicaps through teamwork and cooperation.
2. A surprisingly keen interest for field trips developed.
3. The importance of developing greater relationships with the community was recognized.
4. Instructional techniques became very practical.

(Continued on next page)

THE AGRICULTURAL EDUCATION MAGAZINE

OCTOBER, 1973

MEETING FARMERS' SPECIFIC NEEDS

For many years farmers have been offered to them educational meetings in the form of weeklong courses in the areas of agricultural production, present day farm management and marketing. These meetings are presented in various locations, and the specific needs of each farmer have been analyzed. The specific needs of each farmer have been analyzed. The analysis includes the strengths and weaknesses of the farm business. Following the analysis, the specific needs of each farmer are met. The analysis is intended to indicate the strengths and weaknesses of the farm business, and to help the farmer solve specific problems.

Perhaps the purpose of education is to train people to use certain facts to solve specific problems, not just to disseminate information.

You must know the specific and immediate needs of the farmers you are served. It is important that the farmers be aware of their needs and that they are not facing a problem of their own, but of others in the community. Whether they are asked to make a program of business planning, planning for analytic research, the decision making process will ensure that a better system of program analysis is available to the farmer.

Individualized instruction such as this requires a lot of time on your part. This is time that you can serve at any one time. However, these classes have been designed and in order analysis and the decision making process will better be able to go at one while you expense your time with another group.

If you want real personal satisfaction and a sense of serving the farmers of the world, try this personalized method of working with your adult farmers. You rank in friendships and with your adult farmers. You rank in friendships and with your adult farmers. You rank in friendships and with your adult farmers. You rank in friendships and with your adult farmers. You rank in friendships and with your adult farmers.
CAREER EDUCATION: ADULT PROGRAMS
A Unique Opportunity to Serve Returning Veterans

Clayton P. Omvig
Teacher Education
Department of Vocational Education
University of Kentucky, Lexington

Career education has an important part to play in adult programs in agriculture for many individuals, but since our country has outgrown many of the farm markets and away from recent developments in agriculture and agriculture-related occupations for two or more years, many have found career education has a unique role to play for them. For those who desire to return to agriculture, an awareness program has led them to different occupations and other full-time positions. In the latter cases, agriculture often becomes the supplemental income. Programs should be devised which capitalize on this knowledge.

Why do individuals choose an occupation as well as others? Many can find full-time employment elsewhere and not have to work in agriculture also.

The awareness program is an interesting problem to people involved in planning and implementing adult programs in agriculture. A majority of the people who work elsewhere to supplement their incomes do so in order to remain on their farms or to remain associated with production agriculture.

What alternatives can be provided through adult programs? One goal would be to encourage students interested in agriculture to take the control courses of career education must include all occupational clusters. In model programs, for example, the awareness phase begins by focusing on the students' work and the various opportunities available to them in farming and agriculture occupations.

The following activities are suggested as a means of bringing career education into upgrade training for the adults in agriculture.

1. Individual counseling — Adult students enter programs for a variety of reasons, but unlike secondary education programs, they are not required to do so by law or by parents. We can, therefore, assume that they have a real or felt need for participating. How often do we take the time to find out why an individual enters an adult program? He has a purpose or he would not be there. This purpose might relate to upgrade training to more advanced positions in his present position or it might be to prepare the individual for a new or supplemental position. How can we help the adult move toward his career objective if we don’t know what this objective is? The adult's interests and goals must be identified if we are to work effectively.

2. Vocational awareness — In working with adults in upgrade training, one should be in a position to provide information on all the various occupations (full and part-time) which are available in farming and agriculture fields. This can be accomplished as part of the usual instructional scene, informally through bulletin boards and by visual aids. Students' names were alphabetized first and then randomly assigned to each mode of instruction. Each group, which included six students, was used under its respective mode of instruction for three weeks. At the end of the three-week period, the group switched modes. At the beginning of the fourth week, the group served as the control group. The group served as the control group.

The group served as the control group. A typical class began with a review of the previous week's lesson, and then left to the experimenter because of the students' group low ability to read. The auto-instructional mode, like the conventional mode, consisted of half of the class period being used in their respective modes and the second half of the class period devoted to lab work. The students had the programmed instructional materials and practiced with them in the experimenter. He noted that the experimenter's questions were answered correctly by the student's sequence of answers as that which was attempted to perform the skill.

Time. During the entire experiment, records were kept of each subject's time to perform the designated skill so that the time variable could be analyzed.

Each instructional mode was designed to follow the same programmed materials, keeping in mind that the primary purpose of the experiment was to compare the two methods of instructional procedure.

The findings of this study reveal no significant differences between performance of students taught in the conventional method and those taught by auto-instructional materials. The experimenter followed the two-way analysis of variance. When treatment by skills was analyzed against time, a significant interaction at the .01 level occurred. The conventional taught group consumed less time than the auto-instructional group.

There was evidence that students with special skills can be taught manipulative tasks and related information equally well through a self-instructional method or the conventional method of instruction program. The special need students seem to be able to learn the job of manipulative skills through either technique.

Clifford L. Nelson
Department of Agricultural Education
University of Maryland

Ulysses G. Gies, Jr.
Office of Student Aid
University of Maryland

TEACHING MANUAL SKILLS TO THE DISADVANTAGED

The disadvantaged students in this study improve their own capacities of knowledge of which to select instructional methods and the most productive techniques for presenting materials and subject matter.

Education is faced with the problem of more effective utilisation of teachers and methodology. The vocational agriculture faculty of the school system controls the tools, machines, and materials of industry. These items constitute the media through which the learners may be taught.

Literature has documented the problem of the so-called "socially and culturally" disadvantaged students in traditional school programs. The "disadvantaged" are of various races and ethnic backgrounds and they may suffer learning difficulties.

The teaching techniques in the usual operation with the disadvantage are those commonly used in regular student programs. Among the problems the teachers of disadvantaged students face is the selection of effective techniques for working with this group which, if any, traditional or innovative techniques will work? Another pertinent question in the teaching of disadvantaged students is how well they can learn as well with the auto-instructional methods as they can with the conventional methods of instruction or whether auto-instructional supplemented with the visual aids is as effective as the conventional method.

The study on which this article is based was conducted in a vocational school for disadvantaged youth. The general format of the experimental design consisted of two instructional methods and each unit consisted of one class period. The individuals worked in the conventional lecture-demonstration method, both reinforced by visual aids. Students’ names were alphabetized first and then randomly assigned to each mode of instruction. Each group, which included six students, was used under its respective mode of instruction for three weeks. At the end of the three-week period, the group switched modes. At the beginning of the fourth week, the group served as the control group. The group served as the control group.

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University of Maryland

Ulysses G. Gies, Jr.
Office of Student Aid
University of Maryland

The need for a non-mathematical, easy-to-read presentation concerning statistics in agricultural sciences in agriculture may have been met by this book. The author is one of the few who attempts to present the basic principles of statistical science but also to provide a simple approach. This book is outstanding in these aspects, and for this reason, it is recommended to students, teachers, and practitioners who are interested in the topics and problems of agriculture.

Due to its introductory nature, the book is well-organized, clearly written, and comprehensive. It provides an overview of the different statistical operations and experimental designs used in agricultural research. The book is useful for those who wish to further their understanding of statistical methods.

The book is divided into four parts. The first part covers descriptive statistics, including measures of central tendency, dispersion, and distribution. The second part covers statistical inference, including hypothesis testing and confidence intervals. The third part covers regression analysis, including simple and multiple regression. The fourth part covers design and analysis of experiments, including randomized complete block designs and factorial experiments.

This book is an excellent introduction to statistical methods in agriculture. It is well-written, clear, and easy to read. It is recommended for anyone who wants to learn about statistical methods in agriculture.
Stories in Pictures

by Richard Douglass

WHERE DO YOU LOOK FOR HELP?

1. Virginia Adult and Young Farmers provide input as well as participants in formal classes (Photo from John W. Myers, Jr., Assistant Superintendent, Virginia State Department of Education).

2. Teacher Educators stand ready to assist when needed. Left to Right: John Thompson, Wisconsin; Ken Bryer, Alan Kohler and James Gibson, Michigan. (Photo by Richard Douglass).

3. Teachers should explore the use of technicians in the community to provide students help solve actual day-to-day problems as well as occupational training. The effect of hands-on the students is clearly demonstrated at the Texas OIL Fuels Institute held at West Bend, Wisconsin. (Photo from Wayne Keenan, Masurian Park Technical Institute, Fond du Lac, Wisconsin).

4. Teachers should seek assistance from their supervisors. Left to right: Assistant State Supervisor, Vocational Agriculture.

5. Guatemala Agricultural teachers organize with guidance from Henry Foster, University of Florida, and Kermit Adams, California Polytechnic. The central purpose of the new organization is professional improvement. Subsequent conferences will be devoted to the various uses of improving agricultural education methodology at the high school level in Central America. (Photo from Carl Bowman, University of Florida.)