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ABSTRACT

Several methods for determining priorities for research in agricultural education can be cited. These include the following: to rely on individual initiative, as has been done in the past; to get organized as a profession and reach agreement regarding research priorities at the national, regional, or state levels; to wait for federal and state direction regarding research priorities; or to obtain input from the various publics regarding what agricultural education's priorities should be. Research priorities can also be approached from the standpoint of process and product. Some process approaches that might be considered include: (1) inventorying those problems that have no current answers to find priorities (educational ignorance), (2) determining felt need--but whose need?, (3) waiting for federal or state initiative, which may be blocked by fund shortages; and (4) expecting leadership from the profession--if it has the resources needed. A look at the "product" of research reveals many valid areas for research in agricultural education, such as annual personnel needs in agricultural occupations, agricultural curricula, agricultural special needs students, impact of Future Farmers of America, predictors of success in students and teachers, and many other potential research subjects. One example of an area that could spawn many research projects is the assessment of parttime employment of in-school youth. Thinking about the questions raised regarding process and product of agricultural education research should aid the profession in determining relevant actions to take to determine research priorities. (KC)

PRIORITIES FOR RESEARCH IN AGRICULTURAL EDUCATION

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What are the priorities for research in agricultural education? What research should be conducted to help the agricultural education program and profession continue to grow and develop? What frontiers should be explored to further expand and perfect the programs offered today? Who should be involved to provide researchers with new insights regarding priorities and issues to study? How should they be involved? How should limited resources be used most advantageously to impact most profoundly on the profession?

These and other questions immediately come to mind when considering priorities for research in agricultural education. In this paper I will attempt to: (1) Raise questions regarding how the profession could deal with the problem, "What are the priorities for research in agricultural education?"; (2) state some of my own views regarding priorities and directions for research in agricultural education; and (3) close with some considerations and cautions as we attempt to identify priorities in agricultural education research.

DEALING WITH THE "PRIORITIES" PROBLEM

How should the profession approach the problem, "What are the priorities for research in agricultural education?" Some would contend that the question has been answered. Look at the research that has been conducted. The research would not have been conducted if it were not a priority for the researcher at the time. Past research completed emerged because someone thought it was a priority. Therefore, there is reason to believe that research that will be conducted in the future will also be a priority for the individual conducting the research. Let the researchers determine the priorities! The bits and pieces of new information found will contribute to the larger body of knowledge about agricultural education and thus benefit the profession as a whole.

Others contend that priorities should be determined through a carefully thought out, organized, systematic procedure. They feel that priorities can be established and that by focusing on the research priorities identified, the profession as a whole will benefit. "Up-front" agreement regarding what the priorities are will allow for more relevant research to be conducted, broader generalization of findings, and more efficient and effective use of resources. Advocates of programmatic research endeavors contend that there are some "best answers" to the question regarding priorities for research in agricultural education and that such answers can be obtained systematically.

Most research completed in agricultural education probably lies somewhere on the continuum between an individual's specific interest in a problem and more broadly defined programmatic needs identified at the state or national level. As Mannebach (1980) pointed out in his analysis of the impact of agricultural education research on identified professional concerns, "research has typically been an individual endeavor. Students have been encouraged to study areas of interest to them. Yet in recent years, we have seen the trend and perhaps felt the pressure to become engaged in more programmatic research in agricultural education. It seems obvious, however, that debate should be initiated regarding whether agricultural education research should be focused primarily on individual interests, on identified programmatic needs, or some other place on the continuum. There is certainly a need for research in all areas; however, the profession should debate and clarify its values and thinking regarding the issue."

It seems that the agricultural education "family" has several options available to them. Among the options are (1) to continue to rely on individual initiative, (2) get organized as a profession and reach agreement regarding research priorities at the national, regional, or state levels, (3) wait for federal and state direction regarding research priorities, or (4) obtain input from our various publics regarding what our research priorities should be. Other options are possible; those listed are intended to help us begin thinking of the manner in which we might approach the problem.

THE AUTHOR'S PERSPECTIVES

There are several ways one can approach the problem, "What are the priorities in agricultural education research?" At the onset, I would like to expand the word "research" into the words "research and development." I think that because the profession is highly practioner oriented, much of what we do in research and development is development. I like to include development because it implies a closer bond between the researchers and the practitioners, a tie that is vitally needed if our research is to impact on policy and program development.

I will approach the question of research priorities from the standpoint of "process" and "product." Research priorities should be established by some process. What are those processes? Which should we be using? Following are some process approaches which we might consider.

Educational Ignorance

Many times research projects are undertaken because we don't know the answers to certain questions. We are ignorant on the specifics regarding our program, so sometimes we conduct research to find the answers. Other times we just say we don't know the answers and drop the issue. I maintain that we should inventory those problems to which we have no current answers. Some questions would emerge as priorities and merit study periodically. Other questions should be incorporated into an overall data collection system with answers obtained annually.

Felt Need

Many authorities agree that research should be conducted in the areas of felt need. However, it is difficult to determine whose felt need is to be satisfied -- legislators, program planners, administrators, parents, students, the farming or agribusiness community, or our own; teachers, supervisors or teacher educators. If the researcher is studying his or her own interests, the question of priority is answered. However, if programmatic priorities for research are to be established, the felt needs of many populations, and certainly the profession, must be considered. At the 1980 National Agricultural Education Seminar (1980), three broad issues were identified as being crucial to the future of agricultural education. They were (1) the objectives of agricultural education as part of public education, (2) the development of professional teachers of agriculture, and (3) adult and continuing education in agriculture. Certainly issues developed through interaction provided by the seminar reflect many of the felt needs of the participants and provide direction regarding priorities.

Federal/State Initiative

In the past, federal and state monies and leadership provided direction regarding research priorities in agricultural education. The completed national employment demand, competencies, and standards projects are examples. Can we continue to rely on federal resources and leadership to chart the direction for research in agricultural education? In my opinion, in the short run I don't think we can rely on any substantial federal support to establish the priorities or to fund the priorities if established. Much of the initiative will probably have to come from state, and maybe, regional efforts.

Professional Leadership

There seems to be an emerging sense of urgency from the profession to identify research priorities, conduct needed research, and move the program of agricultural education forward. Past research conducted in agricultural education has largely been based on individual effort; masters, doctoral and staff studies supplemented periodically by larger federal initiatives. When we look to the profession to conduct research, we find great expectations and few resources. As Mannebach (1980) pointed out, five states conducted 57 percent of the research between 1974 and 1977. Nine states conducted three-fourths of the research reported over the three year period. If we expect the profession to identify and conduct research in areas of priority, we will have to make a serious examination of the resources and capacity of our institutions.

So much for process. When we look at "product", or potential priorities, we find many valid areas for research and scientific inquiry in agricultural education. There are also many areas of development which should be considered. Farming and agribusiness have expanded into highly sophisticated operations requiring a wide variety of technical and managerial skills. The population of youngsters which we are mandated to

serve has changed dramatically. New hardware, software, ideas, procedures and techniques designed to help teach our students are available. It is a constant struggle to keep abreast of the new developments.

Some would say that the research and development needed has been completed. They maintain that answers are on the shelf, we need only to review past results to solve our problems. Perhaps they are right in the short run. With fewer federal dollars to conduct major research projects in the immediate future, more emphasis should be placed on synthesizing and applying past research findings. But past research is not enough. As time progresses, conditions and situations change, new problems arise, and new answers are needed. So research and development are important continuous activities.

I've been asked to respond to the question, "What are the priorities for research in agricultural education?" I'm not a prophet, but I will attempt to ask some questions which pertain to some of my felt needs and educational ignorance in agricultural education. I don't know that all the questions raised can be answered through scientific inquiry, but here's a smorgasboard of research and development questions to consider, not in priority order:

- What are the annual manpower needs in farming, in agribusiness, in teaching in the state?
- What proportion of annual manpower needs is the program meeting by supplying qualified graduates?
- What is the newest and the fastest growing agricultural industry in the state?
- What curricula do we have to prepare people to obtain entry into the fastest growing agricultural occupations?
- What new courses have been added to the curriculum during the past five years?
- What new courses, or content, is likely to be needed in the next five years?
- What proportion of our students are special needs students? females? non-farm youth? farm youth? etc.
- What are the likely agricultural job and career possibilities for them?
- Where are the graduates of vocational agriculture programs one, three, five and ten years out of school?
- How has the Vo-Ag - FFA program had an impact on their lives?
- What is the relationship between achievement, continuing education, and job placement and other individual and demographic

variables? Which variables are the best predictors of success of graduates?

- What variables are the best predictors of success in teaching vocational agriculture? How can we recruit and select potential teachers based upon the information?
- What aspects of the program should be eliminated, maintained, expanded or further developed?
- How can we keep teachers abreast of new agricultural technology and pedagogy?
- How can we further develop the adult and post-secondary offerings in agriculture?

These are broad questions, many of which have been studied periodically. Do we have the current answers? What other questions should be added to the list? Which of the questions identified are most important to you as a professional? To your state leadership? To the profession as a whole? To our various publics?

I'm sure we don't have all the answers to the broad questions. When we narrow the questions down to one aspect of a more specific topic that we claim is the heart of the vocational agriculture program, namely supervised occupational experience programs, we have even fewer answers. For example, let's inventory some questions which we may ask about students placed for experience on farms or in agricultural firms. The categories identified were taken from the findings of the final report of Greenberger and Steinberg, (1981) entitled, "Part-time Employment of In-School Youth: An Assessment of Costs and Benefits." The categories and questions are identified here as examples of how much more there is to know about the influence and results of the placement component of the supervised occupational experience program.

Responsibility

1. How much responsibility are students given on the job?
2. Do students show the initiative to do more than is expected of them on the job?
3. How much time does the student operate independently on the job?
4. How much time does the student spend cooperating with others on job tasks?
5. Do students feel that the work they perform makes an important contribution to the functioning of the enterprise or organization?
6. Do students feel that their work benefits others?

Contact with Adults

1. How much time on the job do students spend talking and interacting with adults?

2. How much instruction do they get from supervisors or co-workers?

3. What job settings in agriculture provide students the most opportunity to interact with other people?

Learning

1. How much learning takes place on the job? What kind of learning takes place?

2. Who benefits most from a placement situation, talented or less-talented students?

3. How much opportunity exists for students to use cognitive knowledge taught in school?

4. What new skills are learned on the job?

5. What percentage of time do students spend "cleaning" and "carrying"?

Work Related Attitudes, Values and Plans

1. Does work experience alter the students' long range occupational or educational plans?

2. Does the work experience lead to changes in job values, attitudes toward work, etc.?

Costs to Schooling

1. How does work affect students' involvement in extracurricular activities, FFA activities, study time, etc.?

2. What is the relationship between time worked per week and academic performance, absenteeism, peer acceptance, family relationships, etc.?

Costs to Health

1. What is the relationship between time spent working and effects on self-reported physical or psychological well being such as stress, use of tobacco, alcohol, drugs, etc.?

2. To what extent do poor environmental conditons, autocratic supervision, impersonal work environment, low wage structure, perceived meaninglessness of job and conflict of work with

other roles contribute to well being?

Occupational Deviance and Related Attitudes

1. What percentage of working students become involved in common forms of deviance such as theft, giving away goods or services, calling in sick when not sick, etc.?

2. To what extent do students who work learn and display cynical attitudes about the intrinsic value of work?

3. Why do vocational agriculture students work? What benefits do vocational agriculture students derive from their work?

4. How do vocational agriculture students spend the money they make at work? What proportion is saved? Invested? Spent on peer related items such as cars, records, extra clothes, etc.?

Costs to Family and Peer Activities

1. How does the time spent working affect students' relationships with family, peers, work associates, etc.?

2. Is the workplace a source of significant new peer friendships?

3. How do family members, peers, and school officials view those who work?

Reinforcement of Occupational Sex Stereotypes

1. Are student workers employed in sex stereotyped jobs?

2. Do students perform the same occupational tasks regardless of sex?

3. Is there a pay differential between girls and boys placed in supervised occupational experience programs? If so, what is the difference?

4. Do boys and girls work the same number of hours per week?

5. What are vocational agriculture teachers doing to diminish sex stereotyping?

The above categories and questions are not presented to imply that the issues identified happen extensively to students placed for agricultural experience in a supervised occupational experience program. Greenberger and Steinberg did find that issues implied by the questions raised did happen in various degrees in school youth who obtained part-time employment on their own without school supervision. It is not to be implied that the identified categories and questions are characteristic of

vocational agriculture students; what is being implied is that we don't know the answers to the questions. Perhaps some of the questions will emerge as priorities and merit study.

CONSIDERATIONS AND CAUTIONS

One can see from the preceding discussion that I don't have the answers to the questions raised. As we probe the issue as a profession, I hope that we give some thought to how we go about determining priorities (process) and what the priorities might be for us individually and as a profession (product).

Given that the profession could come to some consensus regarding research priorities, some questions still remain. Will the research conducted meet the needs of the profession only, or will it have the broader impact of meeting the needs of legislators, state and federal planners, the farming-agribusiness sector, parents, students, etc.? Where will the resources be obtained to conduct the research in priority areas? Does the profession have the interest, the expertise, the time, and the resources to conduct the research? Will the focus of the research be at the international, national, regional, state or local level? What kind of cooperative and collaborative efforts should be established? What kinds of research should be conducted? How can we increase the proportion of experimental and phenomenological research conducted and decrease the proportion of survey research conducted? How can we be sure that the research conducted will have impact on and implications for students enrolled in our programs?

Thinking about these questions has proven to be a rewarding professional experience for me. I hope that important issues and questions have been raised, that the debate will continue, and relevant action will be forthcoming from the profession.

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