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THE "AG COLLEGE" CURRICULA: ACCOMODATING DIVERSE NEEDS, INTEREST AND GOALS

William H. Kelly

I have divided this presentation into two parts, the first is a brief discussion of some of the major factors impacting on the curricula and the second part attempts to relate these factors to a new curricula and the possible future educational roles for Colleges of Agriculture.

You are undoubtedly aware of most of the first group of factors so I will not spend a lot of time on each one, but it should be helpful in our discussion to lay them out before us.

Perhaps the most noticeable impact during the last few years has been the dramatic increase in enrollment. This has been true for students majoring in our various programs and also for course enrollment by non-majors. Reviewing the number of graduates from Northeastern Colleges of Agriculture from 1966 to 1978 we find an increase in baccalaureate degrees awarded ranging from 171 percent to 1,635 percent! The aggregate figures from the Northeastern Region are as follows:¹

	1966	1977	% Increase
Baccalaureate Degrees	1092	5222	402
All Degrees	2211	7174	282

The national figures reveal a similar trend with 38,000 undergraduates enrolled in Colleges of Agriculture in 1966 and 92,000 in 1975.

Another factor impacting dramatically on Colleges of Agriculture is the increase in the number of women in all programs. This increase seemed to hit the Northeast first and then spread to the South and Midwest. Some colleges are now 50% women and this does not include programs such as Home Economics which are pre-dominately female. In 1976, of the 19,000 bachelor degrees awarded nationally in agriculture and natural resources, 18 percent were awarded to women, five years earlier they received only 4 percent of the degrees.²

Another characteristic I'm sure you have all been confronted with is the changing background and work experience of today's students. We no longer can assume that most of them have had farm experience and are conversant with common agricultural terms. Most colleges are wrestling with the best way to address this problem.

Now I know, as I said before, that you're all aware of these factors, but I wanted to review them before I move on to some other factors that are perhaps less obvious or at least not discussed as often.

One of these other areas I would label awareness, values and concerns. While these factors will exist to varying degrees in any given student, I believe they are important factors and deserve specific attention. We have many students on our campuses today, many of them might also be enrolled in other parts

of the university, who are seriously concerned about world food supplies, food as a political weapon, the proper role of the United States in world affairs, etc. They have been exposed to, and in some instances have read quite widely about, environmental problems in general and specifically such topics as the use of chemicals in food production, land-use policies, and economic needs *versus* ecological concerns. I would rate this increased level of awareness and concern with values as a significant factor that must be considered when evaluating any given curriculum.

A discussion on the affective area leads quite naturally to a third significant area and that is the renewed interest on the part of professional educators and others in the general education, or basic education, component of any college degree. This is a perennial question that has always been around, but interest in it intensifies from time to time and we're in one of those intensified periods at the present time. One reason this is a "hot-issue" now is the recent action taken by Harvard University to implement a new core curriculum. The Harvard report defines the essentials of an undergraduate education as follows:

1. An educated person must be able to think and write clearly and effectively.
2. An educated person should have a critical appreciation of the ways in which we gain knowledge and understanding of the universe, of society, and of ourselves. Specifically, he or she should have an informed acquaintance with the aesthetic and intellectual experience of literature and the arts; with history as a mode of understanding present problems and the processes of human affairs; with the concepts and analytic techniques of modern social science; with philosophical analysis, especially as it relates to the moral dilemmas of modern men and women; and with the mathematical and experimental methods of the physical and biological sciences.
3. An educated American, in the last third of the century, cannot be provincial in the sense of being ignorant of other cultures and other times. It is no longer possible to conduct our lives without reference to the wider world within which we live. A crucial difference between the educated and the uneducated is the extent to which one's life experience is viewed in wider contexts.
4. An educated person is expected to have some understanding of and experience in thinking about, moral and ethical problems. It may well be that the most significant quality in educated persons is the informed judgment which enables them to make discriminating moral choices.
5. Finally, an educated individual should have achieved depth in some field of knowledge. Cumulative learning is an effective way to develop a student's powers of reasoning and analysis, and for our undergraduates this is the principal role of concentrations.

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¹ From enrollment reports presented at the Resident Instruction Section meetings at the National Association of State Land-Grant Colleges and Universities annual meetings. 1975-1977.

² New York Times, June 3, 1978.

Ernest Boyer and Martin Kaplan in their essay, *Educating for Survival*, also make a plea for a new core curriculum. One aspect of their core curriculum would be a study of our common heritage, but with significant differences from previous approaches. They suggest that this component should be concerned with change, with shifts of historical paradigms and with sets of events viewed from different vantage points. Another basic part of their core curriculum would ask students to look at the contemporary world and to understand the processes in which, as social creatures, they are engaged. Again, they elaborate on their concept and present some fresh ideas for its implementation.

A third component of the Boyer-Kaplan core curriculum is the making of the future. They introduced this idea with the following statement:

That human beings inherit a common past and inhabit a common present will seem controversial to very few, but to advance the truism that they have a common future as well is to startle the curriculum from a millennial slumber. Yet, there is no sharp distinction between the future and the past and the present, and educators have failed in helping students grasp this fact. Nothing raises the question of inter-dependence and community existence more crucially than the tomorrow which, willfully and willy-nilly, is being made today.

Therefore, the past, present and future — humankind's rootedness in time — have suggested the components of this new core. They have gone one step further and added a capstone to their core curriculum which is a very strong and forward look at the moral and ethical considerations that guide the lives of each person, a kind of forum in which personal beliefs could be discussed. I will return to this question of values and beliefs.

It is almost impossible to separate any discussion of the core curriculum or general education component from the even more fundamental issue — "What is the purpose of the college degree?" This usually evolves into a discussion of professionalism, or vocationalism, vs. liberal arts. Other individuals might divide the issue into a discussion of the value of lifelong learning vs. economic payoff. I don't want to shake this hornet's nest too hard at this time, but I mention it because I believe our responses in this area are often too stereotyped and too superficial. It is also often an issue that tends to polarize the various parts of the campus rather than bring them closer together.

I have very quickly reviewed some factors that I believe are important considerations in any discussion of curricula. I now want to take a few minutes to suggest how Colleges of Agriculture might proceed to examine and evaluate their curricula.

We can adopt the reactive role and change only in response to external pressures. If we focus only on the first factors, increasing enrollments, more women, different work experiences, etc. without taking the large view, then I believe our response might be that things are going very well and thus encourage us to become complacent. This would be a short-sighted view and perhaps, in the long run, even disastrous. Sometimes the only "adjustment" we make in our procedures is to vary the requirements, both for admission and graduation.

My plea is that we take a very active role in all curriculum matters, starting at the departmental level and extending to campus wide discussions. But, before we enter this large curriculum arena we better have our house in order and be very certain about what specific competencies or learning experiences we want our students to obtain from other parts of the campus such as the College of Liberal Arts. Once we really come to grips

with this problem, we might discover that certain elements should be added to the "in-home" curriculum of the Ag College. An example of this would be the environmental values program taught at Cornell University by Dr. Richard A. Baer, Jr. (some of you are perhaps familiar with this program and can expand upon these comments during the discussion session.) "The main purpose of this program," according to Dr. Baer, "was to foster understanding among students and faculty of man's relation to his natural environment in light of value considerations growing out of a study of the humanities — particularly religion, philosophy, and ethics." In a paper that Dr. Baer prepared for NACTA he summarized very nicely the place of values in the professional school curriculum when he said:

"The choice for the professional school thus becomes relatively straightforward — either education seriously wrestles with value questions or it hardly deserves to be called education at all. The refusal to deal explicitly with values certainly does not mean that students will receive a value-neutral education. It rather means that they will uncritically absorb the dominant, mostly unarticulated, values of society, mediated largely by television and other mass media. Fortunately, some students will engage in fairly rigorous value discussions outside of the classroom, for instance through their participation in a variety of voluntary public action groups. At best, that means that some will become reasonably sophisticated in their understanding of values, not because of, but in spite of the university.

If values education is to become a respected part of the university curriculum, help will be needed from those professionally trained in ethics, philosophy, religion, and the social sciences. Philosophers, indeed humanists from every field, will need to focus not only on the specialized concerns of their own discipline, but should also engage in active dialogue with scientists and technicians. Universities should give a far more prominent role to "philosophy of" courses: philosophy of science, of art, of politics, of natural resource management — the list is as comprehensive as culture itself."

I found Dr. Baer's description of his program and its objectives very exciting. I wish we had the same type of offering at our institution.

I have not mentioned the specific competencies required in our various disciplines because this has traditionally been the strongest part of our curricula. This is not to imply that we can't do an even better job, but it's just not the area about which I'm most concerned. I am concerned about those areas referred to in this brief review such as more direct interaction with values and associated issues, an exposure to a future orientation, and true interdisciplinary courses and programs. I believe that most of our programs lack consistent depth and breadth in these areas and only in isolated instances have we really "gone to the mat" on these issues.

Perhaps the late 1960's, with all the problems and tragedies of that time, still came closest to creating the kind of dynamic educational tension required to get educators to address the real issues. During those times we were treated to some elegant rhetoric, which unfortunately got lost in the not so eloquent rhetoric. Harold Taylor in his book *How to Change Colleges* stated:

"What is at stake is not merely the solution of the immediate problems of student unrest as they keep flaring

up from year to year. It is the solution to the problem of how American social institutions, including the colleges and universities, can respond imaginatively to the reality of the changes that have already taken place in the society. At its deepest level, the issue is a conflict in philosophy between those who see the faces of change as threats to the stability of the social order and those who see every society as a mixture of stability and change, with the most stable society defined as one in which change is accepted as a natural way of maintaining stability and creating a viable future. In such a society, the university is the nerve center of moral and social intelligence within the entire social organism. Its function is to anticipate the needs of the changing environment, and to educate the generations to meet those needs. If it does not take that as its function, it will be swept aside by the changes themselves."

It also sounds to me that I am hearing some of Postman and Weingartner's thoughts echoed in these proposals for a new core curriculum. In their book, *Teaching as a Subversive Activity*, they made the following statement:

"Survival in a stable environment depends almost entirely on remembering the strategies for survival that have been developed in the past, and so the conservation and transmission of these becomes the primary mission of education. But, a paradoxical situation develops when change becomes the primary characteristic of the environment. Then the task turns inside out — survival in a rapidly changing environment depends almost entirely upon being able to identify which of the old concepts are relevant to the demands imposed by the new threats to survival and which are not."

The shock waves that swept many campuses in the 60's could reverberate into another time, but hopefully it won't require anything that drastic to get us to breathe some new life into our learning environments. I believe we can do a much better job and it doesn't always require more money. It might be mainly a new orientation.

In summary then, I believe that all of the ideas and concepts presented in this paper should be incorporated into any overhaul of agricultural college curricula. We can follow the tradition outlined in the 1968 Hazen Foundation report and I quote:

One of the great indoor sports of American faculties is fiddling with the curriculum. The faculty can engage in interminable arguments during years of committee meetings about depth versus breadth. They can fight almost without end about whether education should be providing useful or liberal knowledge. They can write learned books and articles about the difficulties of integrating human knowledge at the time of a knowledge explosion. And of course the battle between general and special education is likely to go on until the end of time. Curricula are constantly being changed. New courses are introduced, new programs offered, new departments are created . . .

The harsh truth is that all this activity is generally a waste of time . . .

Or we can take another approach and instead of fiddling with little pieces of the curricula, we can capitalize on this recent surge in enrollment, the desirable increase in the enrollment of women, and the diversity in student backgrounds. We should follow the lead of Dr. Baer and others and consciously incorporate the teaching of values and ethics into each curriculum.

The lack of a farm background or experience does not have to be put on the debit side of the ledger. It can be turned into an opportunity to enrich our programs with more cooperative arrangements with business and industry. We might even have to provide more simulated experiences within the on-campus programs.

We can, and I believe should, do much more in an interdisciplinary way. As students progress through their various major programs they should be given ample opportunity to experience the team approach to problem solving. The agricultural economist, the anthropologist and sociologist and the political scientist should be working in concert on such problems as rural development and land utilization. This is just one example and I know some of this is being done already, but I am convinced we should do more of it. We should no longer assume that the individual student will automatically assimilate fragmented pieces of various disciplines into a synergistic whole.

If we adopt a future-oriented approach — and the future should go a bit beyond the day after graduation — then many of the other objectives tend to fall into place.

I realize that this presentation has not given you very many specific "how-to-do-it" answers, but there is no satisfactory, all-purpose cookbook approach to education. The details will follow if the faculty, students and administration can agree on goals and objectives. Before we arrive at the "right answer" we must ask the "right question."

We have to be constantly alert to keep our curriculums vital and vibrant and avoid the possibility of having our students say what George Bernard Shaw said, "The only time my education was interrupted was when I was in school."

Thank you for this opportunity and your attention.

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