would set the norm and counteract the behavior of the foreign students who should exhibit more yielding responses to the more dominant American influence.

The other alternative — that of enhancing the status or attractiveness of teachers — presumes an active institutional commitment to international training. Through the purposeful selection and development of faculty who can recognize and relate to students with different values and patterns of social interaction, an institution would be able to provide credible models with whom foreign students, in turn, can better relate and respond.

The above two courses of action — establishing limits on foreign student enrollment and developing a faculty with cross-cultural awareness and skills — can be pursued together in order to strike a balanced approach to international training. The first line of action would aim at preserving the integrity of the local program while the second would aim toward expanding program capacity to absorb foreign students. This study suggests that neither course of action should be ignored.

Summary

Although the institutional characteristics and educational purposes of a community college may differ somewhat from those of a four-year institution, this study illustrates certain constraints in training foreign students in agricultural programs at either type of U.S. institution. If the number of foreign students becomes a sizeable segment of a program or classroom population, one may expect teachers to be confronted with students able to sustain different social behaviors from those expected of American students. Furthermore, it is likely that teachers will have to make certain adjustments in managing the school and classroom environment. In order to minimize these difficulties, faculty should be prepared with some understanding of the anticipated behaviors of the students and, as a protective measure, should be exposed to a limited number of foreign students until a cross-cultural awareness and experience base is established in the agricultural program.

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The International Dimension As A Valid University Function

Jerry B. Eckert and Kenneth C. Nobe

Several recent developments highlight the importance of international development to the agricultural economics profession. Among the more significant are 1) the award of the 1979 Nobel Peace Prize to Theodore Schultz and Sir Arthur Lewis for their efforts in development; 2) emphasis given to the field by the American Agricultural Economics Association (AAEA) meetings in 1980 and 1982; 3) the recently completed global study of the International Committee of the AAEA (Feinup and Riley) demonstrating the priority accorded internationally to education and training in our profession; 4) the rapidly growing respect for, and professional contribution of the International Association of Agricultural Economists (IAAE), especially as a result of the Nairobi and Banff meetings and the one scheduled for Jakarta this year; and finally 5) continued increases in the number and size of multidisciplinary development programs abroad which mandate a partnership between agricultural scientists and agricultural economists.

These events and others have led the profession, its members and their departments into an increasing involvement in world development. To some this is only logical and necessary. Others view the trend as competitive and unbalancing to traditional activities in research, teaching, and extension. Very real faculty concerns exist with respect to the uncertainty of long-term funding from non-state sources and the presumed immiscibility of an international focus with conven-

Eckert is associate professor and Nobe is chairman and professor of Economics Dept., Colorado State University, Fort Collins, CO 80523.

tional procedures for evaluation, promotion, and tenure. Finally, state legislatures and governing bodies continue to question the involvement of faculty and university administrators in out-of-state programs. While the question is not new, its recent heightened sensitivity reflects a nationwide budget tightening and an isolationist retrenchment in current public sentiment.

These are appropriate concerns and widely enough held to warrant discussion. We attempt below to develop a context within which international development can be accepted as a legitimate activity for university departments and their member faculty.

The Continuing Case for an International Dimension at Major Universities

University involvement in international programs began in earnest with President Truman's Point IV Program. "The federal government, having drawn heavily on the country's academic resources during the war, now discovered that American colleges and universities, especially those supported by public funds and moved by the desire to serve society, represented a reservoir of human resources available for assistance in implementing national policy in international affairs. Contracts were made with American universities to work with institutions abroad to help solve the development programs of the emerging nations" (Education and World Affairs, p. 49). Involvement grew and with it experience. By the mid-1960s many universities had formally addressed the question of the appropriate role for international programs within the university. And in significant cases this institutional soul searching "led to an acceptance of the international dimension as a central focus of their efforts" (Michigan State University, p. 15).

Throughout the post-war period, a great deal of thought was devoted to legitimizing the international university dimension. Most of the rationale for internationalization is still valid today. And some of the same concerns of doubters are still heard. Yet the recent crescendo of public debate suggests that the international dimension might, in some sense, be on the threatened margin in today's conservative climate. In counterpoint, we contend that it is more essential today than ever that the university express a global perspective and that without it we risk failure in our social responsibilities. To reinforce this view the following collection of justifications is offered, expressing concerns at three general levels.

National Concerns

Altruistic concerns with service to society remain a central justification. The co-existence of the university's exceptional capacity to serve plus the critical needs of much of the world's population for assistance are explicitly recognized in the Title XII legislation which attempts to create mechanisms to more effectively bring the two together. Title XII identifies land grant insitutions as particularly suited to the task of famine prevention and relief from hunger. Given the interdependency of today's world, international programs represent not an extension of the land grant concept but merely a legitimate arena of its contemporary application.

Bureau for International Food and Agriculture Development (BIFAD) Board Member Peter Magrath makes a foreign policy case, asserting that the challenges and responsibilities facing the United States are no longer domestic, but global. Continued leadership within the community of nations requires public officials and an electorate who see support to higher education and its international programs as sound domestic policy.

The self interest perspective becomes explicit in the often made economic and commercial argument. In this view, an internationally flavored education, including foreign languages, is seen as necessary for continued American competitiveness in world markets. This case was articulated persuasively by lobbyists seeking repeal of the overseas taxation provisions of the 1976 Tax Reform Act (P.L. 94-455). Similar logic has been used by university administrators in attempting to convey to critical legislators the depth of their states' international economic ties.

Finally, we are recently seeing blunt statements making direct linkages between internationalized education and national security. The case is variously made, but generally questions our ability to deal coherently with other nations and cultures in the absence of well developed global understanding and sensitivities. Emphasis is added through the assumption that America's capacities in this regard are significant determinants of world stability and peace. Magrath (p. 2) even proposes a direct tie between budget support for international education and that for national defense.

National security concerns suggest international education not only for foreign affairs professionals but also for the population at large, whose will forms the basis of a representative government (Magrath, pp. 2-3). Beneke (p. 2) focuses on the foreign student who returns home and emerges in a position of leadership within his country. The attitudes, commitments, and understanding of the United States acquired through a period in an American university may in the long run be one of our most effective single contributions to world stability. This latter point is significant. The United States, Britain, and West Germany are no longer the only large sources of graduate education for Less Developed Countries (LDC) nationals. The Soviet Union and eastern Europe now provide technically adequate advanced degrees to large numbers of young people from developing countries. Enough of them have returned home, especially in Africa, to constitute a definite subset of the policy formation process.

University Level Concerns

The case for the positive contribution of an international dimension to domestic teaching and research has not been well and vigorously made. It must be admitted, however, that perhaps not enough attention has been devoted to maximizing these positive linkages and thus creating such a case.

The students we teach will be professionally active to about 2020, live to the year 2030 on average and will pass on their values and perspectives to their children, the leaders of the middle of the next century. Barring a cataclysm, world interdependence will increase inestimably during that period. The global perspective and an understanding of conditions in the rest of the world are absolutely essential prerequisites for responsible future citizenship. It is, therefore, imperative that these be central to the content of a university education.

Furthermore, universities cheat the student if they do not expose them to contemporary normative or ethical issues. Specifically, today's student deserves an understanding of the legitimacy of alternative value systems and with it an appropriate comparative context for his own culture. A classic definition of education is disillusionment, in the sense of stripping away illusions. One of the university's greater potential social services is to disillusion the student with respect to the primacy of American values.

An internationalized curriculum founded on research and foreign assignments is the best, and perhaps only, means of effectively teaching the perspectives listed above. There is little substitute for the instructor who has been sensitized through field experience in a cross-cultural setting.

In addition to ethical perspectives, international exposure contributes in several other ways to quality teaching or research. First is the wealth of diverse case studies and illustrative material which, with skill, can be integrated into many otherwise conventional courses. We find that courses infused with foreign examples will receive considerably more positive student response than negative. Second is the poignancy of the case materials. For example, a food marketing problem is received and examined at different levels of student interest when the outcome is measured in profits for the domestic case vs. early childhood mortality in the development context. Third, the international dimension broadens our conceptual framework in either teaching or research. By being forced to re-examine one's assumptions, stretch one's imagination and extend one's logic, a better product results. The scientific method requires a continuous questioning of theories and concepts. Foreign settings serve as an excellent Carborundum for this purpose. Fourth, theory and methods developed abroad are finding domestic applications.' Residents of rural Colorado, for example, are now benefiting from water management technology developed in Pakistan and Egypt, rural development concepts from Asia and Central America, crop varieties from research in Mexico and Peru. Finally, there is a considerable demand within state and local communities for the global perspective. Involved, knowledgeable faculty can thus enhance the university's community service function.

Individual Growth

A final, but important, justification is personal growth — the new ideas and expanded horizons that an international involvement offers. Beneke (p. 4) challenges younger staff with the following: "To you with superior talent and training searching for direction, I say what answer to the meaning of existence should you require beyond the opportunity to exercise your talents on behalf of the poor, the deprived and the uneducated masses who populate much of the world." We would add that capacity for personal growth is not limited to the young. We have frequently seen foreign exposure result in an awakened human being. And, we have seen the results in the classroom in the form of new vitality and enthusiasm which are possible from a teacher who, himself, has reentered a learning and exploration mode.

Thus, there are many sound and seemingly unquestionable reasons supporting the internationalization of universities, even during periods of stringency and budget contraction. It will be more difficult today than it was for universities in the 1960s to put forth an international dimension as a "central focus" of university programs. However, institutions of higher learning cannot isolate themselves from the world. The thought processes of instruction and research cannot retain their relevance to the future if constrained by national or regional boundaries.

General Principles for Implementation

Institutionally a program that grows as an appendage without integration with central objectives will indeed become diversionary and competitive. It is important that agricultural economists identify those international dimensions which are complimentary to principal objectives of the institutions in which they work. The following points suggest an integrative context:

1. Instruction remains the leading function of universities and should carry a higher priority than research and service functions. Given the complexities and global interdependencies characterizing the modern world, such instruction is inadequate unless it includes relevant material on international development and its impact on U.S. societies. Thus, the curriculum structure and content are the principal means for internationalizing a university.

A popular view is that international instruction is needed primarily for foreign nationals and U.S. students wishing to work abroad. Conversely, we feel strongly that the most important clientele consists of students planning to live and work primarily in the United States. Thoughtful exposure to international development problems and issues is as vital an educational component for U.S. economics students as was a strong theoretical base, say, 50 years ago or quantitative methods only 20 years ago. This dimension seems especially important for students of agricultural economics. Providing an international exposure for students can be most cost effective through limiting the number of courses devoted entirely to development economics while expanding the number of theoretical and applied courses in which some content deals with relevant development issues.

- 2. A competent, informed and internationally involved faculty is the university's key resource for achieving a true internationalization. Maintaining such a faculty is impossible without a continuous flow of international activities including exchange scholars, sabbaticals taken abroad, international symposia attendance, short-term consultancies and long-term foreign assignments. Despite being criticized as diversionary or unbalancing, the foreign assistance project, managed and staffed by university personnel, remains one of the most effective tools for updating and sharpening of skills which are then applied to domestic teaching or research. Periodic absences from campus are simply one of the costs of accepting a global responsibility. The experiential "laboratory" which supports an internationalized curriculum is the flow of world events. Participation abroad in that flow, in whatever capacity, is a necessary condition for effective teaching of the subject. In sum, faculty exposure to researchable problems and service opportunities in developing countries will usually enhance departmental research and teaching programs rather than diminish them. One of the missing ingredients at present is recognizing these activities as legitimate and giving them full measure in evaluation and rewards systems.
- 3. In order to broaden faculty involvement, funding agencies and university administrations must recognize a need to move further toward diversity in oncampus programs, building on international programs, but counter-balancing them with a wider set of opportunities for professional involvement. Closely related is the need for much more frequent inclusion of graduate students in funded international activities. In recent years there has been some recognition of this potential at AID and elsewhere. It is our contention that the on-campus dimension to foreign assistance could still be greatly expanded, tapping a large reserve of unutilized professional talent for development assistance efforts.

4. In the long run the most effective way a department can build international competence is by encouraging a broader involvement of faculty whose principal expertise lies in non-development areas, rather than by adding full time development specialists. There will always be room for a few of the latter. However, without some experience on the part of perhaps a majority of the faculty, the international dimension risks being assigned to a tangential and occasionally resented position. It is instructive to note that Michigan State University claimed 60 percent of their faculty had foreign professional experience in the mid-1960s and they have since gone on to sustained excellence in the field.

Fortunately, for agricultural economists the international arena is presently the largest source of sabbatical leaves, summer employment, inter-agency assignments, consulting opportunities and the like. Judicious use of these options can form a fundamental mechanism for creating the breadth of faculty experience felt to be necessary.

Comparative Advantage and the Separation of Roles

Implementing the concepts of Title XII has not been without difficulty. Both sides of the partnership defined in that legislation have been struggling to design mechanisms by which university professionals might expand their international contributions. Workable arrangements are still emerging, largely because there remain incompatibilities between the institutional and operational settings of AID missions and U.S. universities. The continued usefulness of BIFAD depends in part on their resolution.

Viewed from the perspective of field missions, universities are faulted for their difficulties in assigning faculty abroad for more than two years, their inability to respond immediately on short-term policy issues and for a penchant to remain "academic" rather than policy or program oriented in their approach. Viewed from the university, service on overseas projects often involves a lapse in continuity with domestic funding sources, a mandate to produce outputs of maximum use to host governments and therefore of impaired potential for refereed publication, an "out of sight-out of mind" problem with departmental colleagues and some threat to advancement toward tenure and promotion.

Much of this perceptual dichotomy can be traced to a general tendency for both parties to view the universities' role as one of technical assistance or technical assistance backstopping. This impression is reinforced by the various consortia, which, as institutional extensions of the land grant universities, focus almost exclusively on technical assistance projects.

We would offer the following thoughts concerning comparative advantage in the economic sense of that term. Universities and their departments have a comparative advantage in the creation of knowledge and generating human capital through education and training. This advantage derives, inter alia, from the structure of the institution, from the convention of tenure, from the critical mass of research facilities including libraries and from an operationalized concept of academic freedom. The university is without peer as a teaching institution. In the case of research, excellence can be found in a much broader range of agencies. In research and scientific discovery the comparative advantage of universities is their ability to mount multidisciplinary research teams and to support their efforts with usually very large research facilities of all disciplinary orientations. This capacity fits well with the complex challenges of the Third World's problems.

This is not to say that university agricultural economists are not very good, frequently excellent, at applying knowledge and skills in a field setting. There are, however, other institutional forms that also do this well. Private corporations and consulting firms would appear to have a comparative advantage in the pure technical assistance role. This is so because of an internal incentive structure designed to maximize productivity in the field without regard to domestic applications affecting alternate clienteles such as students. Because professional development and career progress are defined by this sole criterion, consulting firms can maintain personnel abroad longer with a more intensive focus on the contracted assignment.

Foreign assistance agencies such as AID have a comparative advantage in giving birth to new program and project activities. This capacity stems from their presence and close working relationships with host country governments, the continuity of these relationships, the integration of assistance agencies into a larger foreign policy framework, and finally, an internal incentive structure that stimulates a constant search for new and better program ideas. Cumbersome as AID's programming process may seem, we must acknowledge that it works, usually very well, in an enormously wide range of host countries, with diverse types of projects and with a relatively low failure rate. As presently staffed the U.S. Agency for International Development (USAID) does not have a comparative advantage in implementation management. For highly complex efforts, especially those involving construction, private sector firms undoubtedly have the edge. Where a project's success or failure depends on effective integration of several disciplines, a university may be preferred.

Agricultural economists who operate from a university base and maintain active departmental roles, choose an institutional environment with comparative advantage in education and research. Two derived responsibilities need recognition. First, it is incumbent upon the faculty so involved to actively seek out the

means of converting their foriegn experiences into positive contributions within their home base university. Emphasis in this effort must be on enhancing the education process. Second, funding agencies such as USAID need to recognize that university strength in our areas of comparative advantage is a function of how well the international dimension is fully integrated into all major campus functions. To nurture the strongest possible partners in foreign assistance, funding agencies should be contributing to the on-campus integration process. Viewing universities only as the source of professionally expert bodies will ultimately erode their capacity to contribute, simply because this narrow focus will prove unacceptable as a sustained university core activity. Priorities for the university community and for USAID thus converge on the need to strengthen the universities' international commitments and to insure their fullest possible integration across all appropriate campus activities. The fundamental mission of both agencies can only be enhanced. And Wharton's question about the supply of future development professionals will solve itself.

The comparative advantage view offers the possibility for significant improvement in relations between universities and foreign assistance efforts. Three perspectives need to be accepted. First, long-run development is constrained ultimately by the rate at which human capital is accumulated in the LDCs. Professor Schultz has made this argument persuasively for many years. Technical assistance is but a means to the end of human growth and its impact will be minimal without a concommitant growth in human capital in the form of education and skills. Second, responsible education to prepare young men and women for the world in which they will live must include sufficient exposure to global perspectives, trends and problems to permit them to function much more effectively as world citizens than have their parents. The long-run future of foreign assistance and foreign policy depends directly on the perceptions of these future electorates. Third, progress abroad in development planning and policy formulation is often severely hampered by an absence of systematic knowledge concerning the issue considered. The university professional, operating from his multi-disciplinary institutional base, is in a unique position to provide these three functions.

Conclusion

Thus, there seem to be several roles in which university professionals can contribute actively and more broadly to world development. If cast in terms of our comparative advantage, the activities involved should reinforce and strengthen the vitality of our departments. We see an international dimension as described in this paper as fully synergistic, not competitive, with present functions. Given the magnitude of the development problem and its likely growth relative to that

of the skills needed to solve it, an international dimension cannot but be an additional area of departmental growth which, with thought and nurture, can reach broadly throughout the profession.

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Resources for Teaching and Learning

Wesley J. F. Grabow

Trained or Educated

There is a misconception that training and education are one and the same. Many times the words are used interchangeably. This is not the case, for a person can be highly trained without being educated, and in fact some people, unfortunately, are neither trained nor educated.

A person on the road to an education is one who is searching for the relationships among his or her learning experiences. The key to being educated is the assumption that everything is related. It's hard to define an "educated person", but it is possible to indicate the characteristics of a person who is in charge of his life, and who is educating himself. The difference between training and education is a real one. An educated person tries to "connect up" his or her life ex-

Wesley J.F. Grabow is Director of the Instructional Development Laboratory, College of Agriculture, University of Minnesota, St. Paul, Minnesota, 55108. periences and relate them to each other. These individuals are working to find out where they have been, where they are now, and where they are going. They understand that in order to be educated they must tie together what happened yesterday with what is happening today and with what might happen tomorrow.

The trained person with a good memory tends to retain many disconnected events and facts and develops a disorderly, disconnected frame of mind. A trained undergraduate or graduate student meekly memorizes the facts served up in lectures and text books. He remembers but does not think.

Some people that are neither trained nor educated find their life is a jumble of disconnected events and troubles, all of which they cannot analyze or correct.

An Obligation

Schools and colleges have the obligation to help students structure their lives, develop a web of relationships which is strengthened day-by-day and year-by-year. Schools and colleges need to encourage students to think in terms of cause and effect, to read not chiefly to remember but to reflect. If they read and reflect, they establish new connections which make their previous experiences more easily retrievable and available for varied uses. To become educated is to develop a form for the formless experience and to establish connections for the unorganized or disorganized experiences. The process of connecting things, of structuring our experiences into concepts has a simple but honorable name—the process of thinking and valuing. Both processes are concerned with asking why!

Schools should place more responsibility on individuals for educating themselves. We tend to hover over the students and do their work for them. We value the cooperative process; why not let the students help each other. Edgar Dale, educational psychologist at Ohio State University, said, "One reason why we don't let young people have more responsibility in schools and colleges is that we don't know how to do it. Furthermore, we may not want to discover the devastating fact that the students can learn well by methods other than the lecture. Even when we turn to the seminar as a method of teaching, students may find that the only change is that the professor now gives his lecture sitting down. When a student asks a good question and gets a good answer he is connecting up his knowledge, and making it functional."

To educate is to connect experiences, for everything is related. The thinking and reflective connection is the understanding and meaningful process called education. Clearly the difference between training and education is a real one!