

FOLLOW-UP OF INTERNATIONAL GRADUATE STUDENTS IN AGRICULTURAL EDUCATION AT THE OHIO STATE UNIVERSITY

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The primary goal of international students who attend U.S. colleges and universities for graduate study is to receive the best education available (Kaplan, 1983). These international students do not differ from domestic students in their desire to acquire the necessary knowledge and skills that will adequately equip them for a professional role in society, however, unlike domestic students, 85% of the international students do not remain in the United States upon completion of their degrees (Altbach, Kelly & Lulat, 1985).

The 1986/87 annual census of foreign students conducted by the Institute of International Education (Open Doom, 1987) reported over 349,000 foreign students in U.S. colleges and universities, of which 42% were at the graduate level. The 1988 enrollment at The Ohio State University, Columbus, indicated that international students at the graduate level represented 22% of the total graduate enrollment. In the College of Agriculture at The Ohio State University, international students comprised 48% of those enrolled at the graduate level in 1988. The international students assume they will apply their U.S. education and training upon returning to their home country.

Studies that investigate the relevance of academic programs offered by U.S. institutions indicate that when returning to their country, international students may not make effective use of their U.S. education, and their graduate program of study does not always correspond to their job responsibilities (Lee, Abd-Ella, & Burks, 1981). Altbach, Kelly, & Lulat (1985) summarized the research on the curricular relevance of academic programs offered by U.S. institutions:

. . .in general, U.S. curricula are not particularly suited to the needs of international students coming from Third World countries--especially with respect to technical disciplines (engineering, agriculture, etc.) at the advanced levels... also, international students find technical knowledge (gained from practical training experience obtained following completion of studies) more useful than theoretical knowledge. (p. 32)

The relevancy of U.S. education is a critical issue in planning graduate programs for international students.

Purpose and Objectives

At the present time, reliable data do not exist that provide an accurate record of the current positions and job responsibilities of international students who graduated from The Ohio State University with advanced degrees in agricultural education. To effectively plan and deliver quality graduate education for international students, information is needed on the relationship between the graduate program of studies for international students and their current job responsibilities. The purposes of this study were to describe the employment status of international agricultural education graduates and to determine the usefulness of their graduate education program. The specific objectives were:

1. To identify the types of positions currently held by international students with advanced degrees in agricultural education.
2. To assess the usefulness of courses in the agricultural education graduate program as perceived by the international students in relation to their current job responsibilities.
3. To provide anecdotal data regarding perceptions of graduate study.

Procedures

The design was a descriptive survey. The target population was the international students who graduated from the Department of Agricultural Education at The Ohio State University during the years 1980-1988. Thirty-five international students were identified who had received graduate degrees between the years 1980 and 1988. Fifty-five percent of the students had obtained Ph.D. degrees and

45% had received Masters degrees. Seventy-one percent of the students had an extension education focus and 29% had a teacher education focus. A follow-up study of these 3.5 graduates was conducted.

A questionnaire was developed specifically for use in the study. Part I collected background information and a description of current job responsibilities. Part II asked the graduates to evaluate the usefulness of specific university courses in relation to current job responsibilities using a four-point Likert-type scale with a 4 = very useful to 1 = not useful. Part III consisted of four open-ended questions that documented student perceptions of graduate study. Content validity was established by a panel of teacher educators and international graduate students. A reliability coefficient (Cronbach's alpha) of .87 was calculated for the scale used in Part II of the questionnaire.

The questionnaire, a cover letter, and a self-addressed envelope were mailed to the 35 international graduates. Two months after the initial mailing, a second questionnaire, a cover Letter, and a self-addressed envelope were sent to non-respondents. Twenty-nine of the international graduates returned usable questionnaires for an 83% rate of return. Two questionnaires were returned due to inaccurate addresses; attempts to locate accurate mailing addresses were unsuccessful. Two former students declined to return the questionnaire and two questionnaires were undeliverable due to political unrest in the particular country.

Findings

The findings are presented regarding (a) background information on the responding graduates; (b) a description of current job responsibilities; (c) an evaluation of the usefulness of specific university courses; and, (d) perceptions of graduate study.

Background Information: The 29 graduates represented 14 different countries. Forty-three percent ($n = 13$) of the responding graduates are from southeast Asia, 31% ($n = 9$) are from Africa, and 14% ($n = 4$) are from the Middle East. Six of the former students are female and 23 are male. Sixty-five percent of the graduates had received funding from their home government to attend graduate school and 14% used personal funds. The remaining 21% received funding from U.S. and international agencies (e.g., World Bank, USAID). Two former students had graduate associateships to help fund their schooling.

Current Employment Status: As illustrated in Table 1, 25 of the 29 responding graduates are employed. Three **are full-time** doctoral students, and one former student is fulfilling mandatory military obligations. Of the 25 graduates who are employed, 21 responded that they are working in a position for which they were educated. During their graduate study, 17 of the graduates indicated that they had been on a leave of absence from a position in their home country and 13 had returned to this same position.

Sixty-eight percent ($n = 17$) of the employed graduates are working in a university. Nine graduates are lecturers, four are assistant/associate professors, three are department heads, and one former student is the dean of a college of agriculture. Six graduates are agricultural extension training officers for their home governments. One former student was unable to obtain a university position and is working in private industry, and one graduate is teaching agriculture at the secondary level. Over two-thirds (72%) of the graduates indicated that a portion of their job is administrative in nature. Administrative responsibilities ranged from 5% to 60% for the respondents, and included the following types of activities: supervising office staff or technicians, serving as a liaison between the university and the ministry of education, directing a regional research center, serving as secretary of an academic unit, and serving on university, college, and departmental committees.

Usefulness of University Courses: The graduates were asked to rate the usefulness of specific categories of courses in **relation to** their current job responsibilities. As illustrated in Table 2, the courses rated the most useful were those dealing with a) teacher educator preparation, b) data collection/instrumentation, c) research methodology, design, and analysis, and d) program planning. Eighty-three percent of the graduates who had taken coursework in teacher education rated these courses as very useful in relation to their current job responsibilities. As illustrated by the mean rankings, extension program planning had the highest mean score for usefulness of course, followed by data analysis, instrumentation, and research methods. Coursework in technical agriculture and computers received the lowest mean scores.

Tabk 1
Current Positions of International Graduate Students: N = 29

Position	<u>N</u>
University Lecturer	9
Assistant Professor	3
Associate Professor	1
Department Head	3
College Dean	1
Ministry of Agriculture/Education (Extension Training Officer)	6
Private Industry	1
Secondary Agriculture Instructor	1
Full-time Graduate Student	3
Military Service	1

Table 2
Usefulness Rating of Courses in Relation to Current Job Responsibilities N = 29

Category	# Students Taking Class	Very Useful	% Response			Mean
			Useful	Somewhat Useful	Not Useful	
Teacher Educator Preparation	11	83	0	0	17	3.45
Instrument/Data Collection	18	78	11	11	0	3.67
Data Analysis	21	76	14	10	0	3.68
Research Methods	28	72	21	7	0	3.64
Ext. Program Planning	25	72	28	0	0	3.72
Research Design	11	64	23	13	0	3.50
Program Evaluation	24	58	38	4	0	3.54
Curriculum Development	11	55	27	9	9	3.27
Beginning Statistics	23	52	31	13	4	3.36
Adult Education	12	50	33	17	0	3.33
Computers	12	50	40	42	8	2.92
Administration/Supervision	22	41	36	18	5	3.14
Secondary School Program	13	39	39	15	7	3.08
Technical Agriculture	13	23	39	31	7	2.77

Note. Mean is based on a 4-point scale with 4 = **Very** useful, 3 = Useful, 2 = Somewhat useful, and 1 = Not useful.

Perceptions of Graduate Study. When asked why they had chosen The Ohio State University for graduate **education the respondents** identified three main reasons: a) the outstanding reputation of the Department of Agricultural Education, b) the courses offered at the university matched their personal educational goals, and c) the availability of excellent computer and library facilities.

The most frequently mentioned courses that the students wished they had taken during their graduate program included, in rank order: statistics, extension administration, computer education, research design, and program planning.

The graduates recommended that international students get involved in a variety of activities during graduate study. Attending professional conferences **and** visiting secondary schools and extension offices were the most frequent responses. Several of the graduates stressed the importance of internship programs at local schools and county extension offices. Participation in social/cultural events, sponsored by the department, university, or community was also recommended as an essential component of graduate education. The graduates warned international students not to isolate themselves from other students in the department.

The graduates were asked what general advice they would give to international students considering graduate study in the United States. Learning about U.S. culture, customs, and traditions was the most frequently mentioned response. The graduates advised prospective students to choose carefully their area of graduate study and not to make major program decisions hurriedly. Practicing oral and written English skills was mentioned by several former students. The graduates told potential students to be prepared to study long hours and to carry a heavy course load.

Conclusions and Recommendations

The majority of the international graduate students are working in a position for which they were educated. The international students perceived that most of their graduate courses were useful or very useful in relation to their current job responsibilities. Courses involving teacher educator preparation, research methodology, instrumentation, data collection, and analysis techniques, and program planning/evaluation were perceived to be the most useful. Technical agriculture and computer courses were the least useful in relation to current job responsibilities.

Providing a quality graduate program of study is a primary objective of the Department of Agricultural Education at The Ohio State University. Both domestic and international students need to be involved in meaningful learning experiences during their graduate program. Information from international graduates may help to develop relevant programs of studies for future international students.

Advisors in the department should share the findings from the study with their new international graduate students. Advisors need to discuss the expected job responsibilities of the advisee upon completion of graduate study. Future job duties may not be clearly articulated by the student's home government or university. A programmed course of graduate study will not necessarily be appropriate for all international students. With over two-thirds of the graduates in this study involved in some level of administrative work, administration/supervision courses may need to be emphasized. Internships and/or informal meetings with local extension agents and agriculture teachers appear to be important considerations when planning international graduate programs. Departments may need to develop a systematic, structured approach for ensuring that international students obtain first-hand experience. International and domestic students usually are involved in an informal network system. Advisors should be aware of their international advisee's involvement in a variety of departmental, university and community activities. International students may be reluctant to participate in certain meetings or activities; advisors should take the initiative in inviting students to specific activities.

Additional questions remain that could be investigated by teacher educators in agricultural education. Are international students being "overeducated" in some areas and "undereducated" in others? Students may be taking a disproportionate number of courses in one field at the expense of gaining knowledge and skills in other fields of study. Documenting daily job activities upon return home with actual coursework taken may reveal a different dimension of usefulness of courses as perceived by international students. What forms of communication linkages have been established to maintain contact with international graduates upon graduation? Former students need to receive periodic updates on professional improvements and activities. Investigating type and number of communications would portray departmental contact with international graduate students.

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