

In the twelfth grade, students who want a diploma in agriculture or food technology will take technical studies that place special emphasis on plant and animal sciences.

Students enrolled in the agricultural high schools attend classes 32 hours a week for 30 weeks. Formal examinations account for approximately 10 weeks of the school year. School holidays are at Christmas and Easter (two weeks each) and the months of August and September. For students not involved in examinations, summer vacation is extended an extra two months.

Each of the agricultural high schools has a school farm. Crops grown and livestock raised on these farms are representative of local conditions. School farm products provide food for the cafeteria and a source of revenue for needed school supplies and equipment. Due to the scarcity and irregular distribution of these schools throughout the country, some have boarding facilities. Students living at a school pay a nominal fee for their board and room.

In the past, teacher training in agriculture consisted of at least two years of teaching experience. At the completion of on-the-job experience, the candidate completed an intensive exam. The exam consisted of lesson presentations before a jury of senior teachers and a written dissertation. Teacher candidates normally held a degree in Agronomic Engineering. In Portugal, Agronomic Engineering includes crops, horticulture, animal husbandry, and primary food processing. Degree preparation consisted of five years of course work that was followed by at least six months of training and a presentation of a thesis. Training was generally on extension or research stations.

At the present time in Portugal, the examination (teaching before a jury and dissertation) has been abolished. The two years of on-the-job experience are now spent under the supervision of a school in-service coordinator. Each agricultural school has two coordinators — one for teachers of crops and horticulture and the other for animal husbandry and food processing teachers. Teachers in each group elect their own coordinator. These representatives are responsible for the coordination of in-service teacher training in pedagogy. Training in scientific and technical areas is provided by the university during the initial degree program. High school in-service coordinators are in turn supervised by a district supervisor. Following the two year in-service training and successful review of their work, teachers receive professional certification. There is some indication that the present system of in-service coordinator scheme will be replaced by a concentrated teacher training program in a College of Education. This training would follow completion of a Bachelor's degree in Agronomic Engineering.

Some of the traditional ways of training teachers of agriculture and their students are beginning to yield to contemporary necessities in Portugal. The most evi-

dent of these changes involves high school curriculum adjustments and improvements in pre- and in-service teacher training. With these modifications, the cause of agriculture throughout the country can be advanced. Even though these changes represent important advancements, much remains to be done in improving the status of agriculture and farmers in Portugal.

Agricultural educators from the United States have made important contributions to the advancement of agriculture around the world. If this assistance is to continue on an expanding scale, teachers of agriculture must develop an even greater awareness of education and agriculture in other countries. The exploration of agricultural education in Portugal can provide the profession with one facet of this awareness.

References

- Berkey, Arthur L., ed. 1982. *Teacher Education in Agriculture*. Danville, Ill. The Interstate.
- Graves, William. December, 1980. After an Empire...Portugal. *National Geographic*, pp. 804-830.
- U.S. Department of State. April, 1981. *Background Notes Portugal*. Washington, D.C.: Department of State Publication 8074.
- Welton, Richard F. *Secondary Vocational Agricultural Education in Portugal, A Final Report*. PSI Associates, Washington, D.C.

Roles of Women in Rural Development

Attitudes by American and International Students

Victoria Arku and Barbara A. Holt

The role of women in the rural development process has become of special interest and importance in the world. Since the start of the United Nations' International Decade for Women in 1975, policy makers have become increasingly aware of the impact of development on women and men and the need to give attention to the women in the planning process.

The needs of rural women were considered to be very critical by participants of both the World Conference of Agrarian Reform and Rural Development, held in Rome 1979, and the World Conference of the Decade for Women which was held in Copenhagen, 1980. Tau (1981) observed that several factors have militated against the development process having a positive impact on rural women. People involved in development efforts have had the tendency to plan for

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instead of with women. Programs often are designed from an urban viewpoint rather than from an understanding of the dynamics of rural life. Boserup and Liljencrantz (1975) observed that integration of women in the development process is of vital importance for the chances of economic success for a country. They concluded that full integration of women in development will take place only "when the resources that women present are no longer wasted, when health and other social services are applied to the integration question, and education, training and employment of women take place" (p. 25).

International students who study in countries other than their own return to their different countries and are faced with the responsibilities of taking leadership and innovative roles in the fields of politics, administration, management, education, science and technology. They, therefore, are expected to transfer needed knowledge and skills from the developed country in which they study to their home countries. One way of involving oneself in the development of a country is to help people understand their problems through education which may provide solutions to such problems. However, the degree of success in solving the problems identified may depend on the attitudes, values and social perceptions of the individual leader toward the problem.

Walton's (1967) review of foreign students' studies showed that far too much attention has been accorded to the study of foreign students' attitudes toward the United States. She recommended that more research should be done on attitudes toward the students' own countries, their roles in society, their perception of life and work, and attitudes toward innovation and change held by both foreign and American students.

One such study was undertaken by Allen and Arafat (1971) in which they investigated the procreative family attitudes of American and foreign students regarding family planning. Results showed that there were significant differences associated with nationality between the two groups.

A similar result was reported by El-Banyan (1975). The study measured the cross-cultural education and attitude change of Saudi Arabian students in the United States. The study explored the impact of the experience of studying in the United States and the attitudes of these students toward their traditional cultural values, toward the position of women, family relations, and occupations. Results showed that neither exposure nor adjustment to a different culture had much effect on students' attitudes toward family relations. However, change in attitude was most pronounced in the area of traditional attitude on the position of women.

Shana'a's study (1978) of foreign students' attitudes toward women in the professions did not show any significant difference, associated with country of origin

of foreign students. In this study sex was the most discriminant variable.

Attitude toward traditional female professions is changing. Naqui (1976) investigated Asian students' perceptions of home economics and found them positive. The students felt that boys in Asian countries should take home economics courses and that home economics training could play an important role in the respective countries. Bentivegna and Weis (1977) investigated attitudes of home economics administrators in the United States and Canada and found that males demonstrated a greater acceptance of males entering the field of home economics than did females.

Study Design

The purpose of the study reported here was to investigate attitudes of American and international students toward participation of women in rural development. Specific differences examined were students' agreement and disagreement with statements related to education and employment, economic equality, access to rural services, equality of legal status, leadership and participatory roles of men and women as described at the World Conferences on the Decade for Women and the United Nations' Conference on Agrarian Reform and Rural Development.

The objectives of the study were to

1) Measure and compare the attitudes of American students toward women's participation in rural development in relation to age, sex, marital status, religious affiliation, work experience, place of residence, and parents' education;

2) Compare the attitudes of American and international students toward home economics training for both sexes; and

3) Identify which aspects of the United Nations' resolutions for rural women were accepted by the students.

The population for the survey was graduate and undergraduate students studying agriculture and home economics at Louisiana State University, Baton Rouge. The sample was chosen from graduate and undergraduate students who were enrolled in the College of Agriculture and agriculture related curricula in the fall semester, 1981. The participants consisted of 33 American students, and 84 international students who represented six geographical areas of the world and 31 countries. This included 24 students from Malaysia, the largest group representing a single country.

The choice of students in the College of Agriculture, which includes the School of Home Economics at LSU, was based on the assumption that agriculture has more to offer in the area of rural development than do other disciplines, and the international students are likely to be familiar with rural problems and rural development programs. About 70 percent of the population in many developing countries live in rural areas, and the students probably will

become involved with those rural people upon returning to their home countries.

Development of the Questionnaire

No satisfactory already developed attitude measure scales were found which met the requirements of this study, so an instrument was devised by the researchers. The basic format of the questionnaire was adapted from Shana'a's study (1978), *Foreign Students' Attitudes Toward Females in the Professions*.

The questionnaire used in the current study consisted of two parts. The first part requested descriptive information about the students. The second part was designed to measure the students' attitudes toward rural women in five main areas. These were concerned with 1) education and employment opportunities, 2) equality of legal status, 3) women's access to rural services, 4) roles, and 5) leadership and participation in rural development.

The questionnaire items were based on five resolutions which evolved from the 1980 conference in Copenhagen that concerned women in rural development.

It was the consensus of the group that met at the World Conference of the Decade for Women that governments should ensure that rural women:

- 1) are provided with education, technology and training suitable to their needs as identified by them, in order to improve employment opportunities in rural areas.
- 2) have access to credit and financial mechanisms on the basis of equality with men and flexibility in institutions which deliver credit services to rural women.
- 3) are encouraged and assisted to attain key leadership roles in rural communities and organizations.
- 4) are encouraged and adequately trained to participate actively in cooperatives and other organizations concerned with marketing.
- 5) have access to participation in the rural industrialization programs.

The section on attitudes in the questionnaire consisted of 33 items designed so that each respondent would indicate his or her extent of agreement or disagreement with each. A five-point "attitude scale" was used with (5) being "strongly agree" and (1) being "strongly disagree" for all positive statements. For negative statements the scoring was reversed. Statements were validated by a panel, and the questionnaire was pilot tested. Questionnaires were administered over a period of two weeks to the participants personally and individually. Data were analyzed using factorial analyses of variance and factor analysis.

Demographic Characteristics of the Sample

Males predominated in the study. Of the 117 respondents, 66 were male and 51 female. The in-

ternational students were older than their American counterparts. About three-quarters of the American students were between the ages of 20 and 24 years while three-quarters of the international students were 25 years old or older.

Marital status seemed to relate to age among the two groups. Fifty-two (62%) of the international students were married, compared to 13 (39%) of the American students.

The American students were predominantly Christian (97%). Religious affiliation indicated by the international students conformed to the dominant religious patterns in their home countries. Over half (62%) were Christians and 27 percent were Islamic. Others were Buddhists or professed no religion.

A majority of the students had had some work experience. Fifty-four percent of the American and 67 percent of the international students had worked for two years or more. Thirty-four percent of the international students and twelve percent of the American students had worked for six years or more.

About half of both groups were graduate students. Slightly more of the students had lived in urban areas than in rural environments during the early years of their lives. This was true of Americans as well as international students.

Parents of the American students had received more formal education than had those of the international students. Twenty-five percent of the mothers and 10% of the fathers of the international students had never been to school. This was not unexpected, since in many developing countries the illiteracy rate is higher among women than it is among men. None of the parents of the American students was reported in this group. Eight percent of the American students' mothers and 39% of the international students' mothers had had ten years or more of schooling. Ninety percent of the fathers of the American students and 50% of the fathers of international students had had ten or more years of school.

Most of the mothers of the two groups were housewives. None of the mothers of the American students was engaged in farming, while 7% of the mothers of the international students were farmers. There were very few mothers in the professions, 9% of the American students and 12% of the international students. However, there were more fathers in the professions than in other occupations. This was more true of the fathers of the Americans (61%) than of those of the international students (40%).

Findings of the Study

Seven factors resulted from the factor analysis of the attitude scale. These were categorized and ranked as follows: educational training; decision making; working relationships, economic status; role diversification; role sharing; and educational content. The factor analysis helped to ascertain the extent of in-

tercorrelations among items within the index. Also, it lent support to the sub-grouping used to categorize the items of the attitude questionnaire.

There were no significant¹ differences due to nationality, age, marital status, place of residence, mothers' and fathers' education, mothers' and fathers' occupations, in attitudes toward the participation of women in rural development. However, there were significant differences due to sex and religion. The significant differences between males and females were expected. This was in agreement with Shana'a's study (1978) which indicated that female foreign students have more favorable attitudes toward females in the professions than do males. There were significant differences due to sex in three of the five sub-groups. These were with respect to equality of legal status, sex roles, and leadership and participation. American females scored higher than international females on all the three sub-group variables. There were no significant differences due to sex with respect to education and employment nor for access to rural services.

Table 1. Least-Squares Means by Sex

Sex	N	EDEM	EQLS*	ACRS	ROLE*	LSPN**
Male	65	23.8	19.7	17.9	24.8	22.9
Female	50	24.7	21.2	18.0	27.6	27.8

*p < .05

**p < .01

Sub-Group Code/Scale:

EDEM - Education and Employment (8-40)

EQLS - Equality of Legal Status (7-35)

ACRS - Access to Rural Services (6-30)

ROLE - Sex Roles (9-45)

LSPN - Leadership and Participation (6-30)

Higher values indicate more favorable attitudes toward women in rural development.

Among the international students, religion had a highly significant effect on four of the five sub-group variables: education and employment, sex roles, equality of legal status, and leadership and participatory roles. Mean scores for Christianity were higher than for Islam and Buddhism. There was very little difference between the mean scores of Islam and Buddhism. Mean scores for Islam were the lowest for sex roles and for leadership and participation. However, attitude toward legal status was found to be affected by work experience and mother's occupation.

Table 2. Least-Squares Means by Religion (International Students Only)

Religion	N	EDEM*	EQLS**	ACRS	ROLE**	LSPN**
Christianity	52	24.3	20.4	18.2	26.1	24.4
Islam	23	22.2	18.3	17.4	23.3	18.9
Buddhism	7	23.1	18.4	16.9	25.5	19.9

*p < .05 (See Sub-Group Code/Scale in Table 1.)

**p < .01

Sex was found to be a significant effect on the students' attitudes toward home economics training for both sexes, but nationality was not. Differences were observed in the mean scores of the sexes, with males scoring higher than females.

Table 3. Least-Squares Means by Sex With Respect to Attitudes Toward Home Economics For Both Sexes by Nationality and Sex

Sex	American		International	
	N	LSM	N	LSM
Male	10	2.4*	55	2.5*
Female	23	1.5	27	1.8

*p < .05 Scale 1-5

Higher scores indicate more favorable attitudes toward home economics for both sexes.

Discussion and Conclusion

Findings of the study indicated that both American and international students seem to agree on the need for education and employment opportunities for rural women. The research, however, did not identify the specific types of education that the respondents would recommend for women.

It is clear in the study that females, particularly American females, are more in favor of role sharing than were males of both groups. American males however, accepted role sharing to a greater extent than did their international counterparts. While both males and females agreed on equal pay for equal work done, the males were uncertain as to whether or not women should do the same type of work. Males were more in favor of home economics training for both sexes than were females. This was consistent with findings of Bentivegna and Weis (1977).

Though the students from both groups agreed on the need for female involvement in the planning of rural programs, the extent of involvement was not determined by the study. Attitudes toward women's leadership roles were lower for males than for females, particularly among international males. Also, males in both groups were not in favor of economic independence for rural women. Another research study could investigate how much control a woman should have over property.

Beck (1980) stated that "in all religions an ideological basis underlies, supports, and perpetuates the codes, roles, and customs that relate to women's lives." This was supported in the present study since Muslim and Buddhist males were less in favor of changes in traditional female roles than were the Christians.

It appears that deep rooted attitudes toward the roles of women which are influenced by traditional cultural and religious values may face more resistance to change than attitudes toward education and provision of services for rural women.

¹ Significant, as used in text statements, implies .01 < P < .05, and highly significant implies p < .01.

References

Allen, D., and Arafat, I.S. 1971. Procreative family attitudes of American and foreign students. *International Journal of Comparative Sociology*, 12: 134-139.

Beck, L. 1980. The religious lives of Muslim women. In Jane I. Smith (Ed.), *Women in Contemporary Society*. Lewisburg, PA, Bucknell University Press.

Bentivegna, A., and Weis, S. 1977. Attitudes of acceptance toward males entering the home economics profession. *Illinois Teacher of Home Economics*, XX (5): 230-236.

Boserup, E., and Liljencrantz, C. 1975. *Integration of Women in Development: Why, When, How*. United Nations Development Programme.

El-Banyan, A.S. 1975. Cross-cultural education and attitude change: A study of Saudi Arabian students in the United States. Unpublished doctoral dissertation, North Carolina State University.

Naqui, B.A. 1976. Asian students' perceptions of home economics. Unpublished master's thesis, University of Wisconsin-Madison.

Shana'a, Z.A. 1978. A study of foreign student attitudes toward females in the professions. Unpublished doctoral dissertation, University of Missouri, Columbia.

Tau, M.M. 1981. Women: critical to African development. *Africa Report*. 21 (2): 4-6.

United Nations. 1975. *Decade for Women, World Plan of Action*. Washington, D.C.

United Nations. 1980. *Summary Report of the World Conference of the Decade for Women: Equity, Development and Peace, Copenhagen, 14 to 30 July, 1980*. New York.

Walton, B.J. 1967. *Foreign Student Exchange in Perspective: A Research on Foreign Students*. Washington, D.C.: Department of State Publication, International and Cultural Series.

MINUTES OF THE FALL NACTA EXECUTIVE COMMITTEE MEETING

September 29-30, 1983

Sheraton KCI Inn, Kansas City, Mo.

The meeting of the NACTA Executive Committee was called to order at 4:15 p.m., September 29, 1983, by President Craig.

Executive Committee members present were Craig, Doyen, McGuire, Brown, Everly, Stanly, Godke, Waananen, Sanford, and Weber. Standing committee chairmen in attendance were Seif, Irwin and Severance. Charter NACTA member Schowengerdt, also, was present.

The Agenda for the meeting, as prepared by President Craig, was adopted.

Minutes of the Executive Committee meetings held at the Annual NACTA Conference, Kansas State University, were approved as distributed.

President Craig reported on his activities since the Annual Conference. A copy of his report is attached. The report was approved as presented.

Vice President McGuire gave a brief report of his activities and goals. The green "Each One Reach One" brochure will be reprinted and distributed by the Secretary to aid an annual membership drive. The report, as presented, was approved.

The Secretary-Treasurer reported that the current NACTA membership is 1233 (all membership categories), an increase of 47 since the 1983 NACTA Annual Conference. The current NACTA cash balance is \$3,657.61, with all bills paid. Form 990 has been filed with the I.R.S. for fiscal 1982-1983. The Secretary-Treasurer's report was approved as presented.

NACTA Journal Editor Everly gave his report. A copy of the report, as presented and approved, is attached. The Executive Committee gave formal approval to a 1984 Journal budget of \$10,825.00.

NACTA Historian Stanly presented his report which was approved as given. A copy of the report is attached. The Secretary-Treasurer is to provide the Historian with a copy of Past President Frederick's "Guide to Planning a NACTA Annual Conference" for the association's permanent records.

Reports of NACTA Regional activities were presented by Directors. A copy of the Eastern Regional report, as presented by McGuire for Grossbeck, is attached. No report was received from the Canadian Regional Director.

The meeting recessed for supper at 5:30 p.m. and re-convened at 7:15 p.m.

Copies of the Central, Southern, and Western Region reports as presented by Sanford, Godke, and Waananen, respectively, are attached. All regional reports were approved as presented.

The report of the NACTA Publications Board was given by Everly. He moved that NACTA become a member of the Educational Press Association of America for one year on a trial basis, at a cost of \$50.00. The motion passed. His report was approved as presented. A copy of the approved report is attached.

The report of the E.B. Knight NACTA Journal Award committee was presented by Severance. A copy of his report, as presented and approved, is attached. Suggestions were made to the committee by members of the Executive Committee to consider re-evaluating criteria for judging papers being considered for the award, and for studying the possibilities of establishing two annual awards: one for papers judged as "How to" teaching papers and the other for papers presenting results of educational research.

The report of the Teacher Recognition and Evaluation committee was given by Seif. A copy of his report, as presented and approved, is attached.

A copy of the report of the Improvement of Teaching committee as presented by Godke for Kirst, and approved, is attached. The committee was authorized by the Executive committee to proceed with a new NACTA Institutional member "Agriculture Teacher Award of Merit" program. The Improvement of Teaching committee is developing an appropriate certificate for the award. The NACTA president is to correspond with each NACTA Institutional member early in the Spring each year explaining the award. The first year (1984) a copy of the award certificate will be provided along with the letter. In succeeding years, Deans or Directors at Institutional member institutions will be asked to request certificates. The latter individuals at each institution shall determine their own criteria for selection, and shall select a faculty member to be honored each year.

The report of the Book Review Board was given by Everly for A.W. Burger. A copy of the report as presented and approved, is attached.

The Instructional Media Review Board report was presented by Everly. A copy of the report as given and approved, is attached.

No reports were received from the International Programs, Instructional Media Exchange or Governmental Affairs committees.

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