

Impact of Interpersonal Skills Instruction On the Likelihood of Increased Student Participation In Community and University Activities

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Colleges of Agriculture across the country find themselves in a dilemma when educating students to meet future employment needs in the agriculture and agribusiness profession. How do we prepare students with the technical aspects of the applied biological sciences, while at the same time provide them with the increased interpersonal skills and leadership experiences needed to interact with an expanded agricultural clientele group? Many would suggest that both are essential if future agriculturists are to be effective.

Why leadership and interpersonal skill development? The lack of student experience in leadership development activities and community involvement during the college years has created a post-secondary education agricultural and food sciences graduate who may be naive of the problems facing society and who may be unable to direct change through individual leadership (Astin, 1985; Garland, 1985).

A study conducted by Selection Research, Inc. of Lincoln, Nebraska (SRI, 1988) stated that the people of Nebraska recognized the need for interpersonal and communication skill development as a prerequisite for sustained employment in agricultural fields. Dodge and Foster (1990) indicated that the primary reasons for termination of employment in most fields are related to a lack of interpersonal communication skills rather than technical or occupational specific skills.

Astin (1985) warned that if we do not increase our interest in leadership and interpersonal skill development, our ability to play an effective role in world affairs will be solely dependent on our scientific and technical skills. Quality education needs to be redefined to include greater personal and intellectual competence, a higher level of tolerance for ethnic and cultural differences, increased leadership capabilities, and greater appreciation for the home and community (Feldman and Newcomb, 1969; Chickering, 1977; Astin, 1985; Bowen, 1977; Stodt and Klepper, 1987).

Exposing agricultural students to experiences both within and outside of the university setting may be important in preparing agricultural students for professional interaction after graduation. Fitzpatrick (1988) indicated that activities outside the college classroom should address areas of leadership training, communication, values education and multi-cultural awareness that can prove beneficial in preparing students for the world beyond college.

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Delve, et al. (1987) agreed and stated, "with the notion that tomorrow's leadership will reflect the values of today's college student, it is important that universities provide learning opportunities which prepare and encourage students to take responsibility for the society of which they are a part".

Over the next five years, the U.S. Department of Agriculture predicts a 20 percent shortfall in agricultural graduates needed to meet the employment opportunities in agribusiness. McClintic (1990) reported that career opportunities are abundant for today's agricultural and food sciences graduates. Regardless of the demand of the "employment market", post-secondary institutions will continue to have a responsibility to business, industry and society in general, to prepare the best graduates possible for future employment and societal contribution.

Into the Curriculum

An old educational cliché stated, "If you want to be sure it happens, put it in the curriculum." The University of Nebraska-Lincoln did just that in developing Agricultural Education 102--Interpersonal Skills for Agricultural Leaders (Ag Ed 102). The intent of the course was to develop the interpersonal/leadership skills needed by College of Agricultural Sciences and Natural Resources students needed to interact with the "real world".

"The goal of Ag Ed 102 is to enable students to adopt a more positive and accepting attitude about themselves and others, and to develop leadership qualities which will be manifested in both an improved society as well as improved performance in their chosen career after graduation" (Dodge and Foster, 1990). The course has a strong experiential base. Interpersonal skill development is reinforced through community involvement and volunteerism. Students are required to participate in a service learning project for a minimum of 10 visits, one hour per visit outside of class time. Students are matched with service opportunities within the Lincoln community. Service learning is structured so that students may develop a one-on-one relationship with people of differing backgrounds and cultures.

Dodge and Foster (1990) conducted a study during the 1987-88 academic year of the students enrolled in Ag Ed 102 to determine whether such a course in interpersonal skill development could significantly impact students' attitudes and values. They concluded enrollment significantly increased the positive attitudes students had toward themselves as well as others.

Study's Purpose and Objectives

This study was designed to analyze the impact of enrollment in and completion of the interpersonal skills course on the likelihood of increased student participation in university and community events and activities. Of special interest were increased participation in academic (classroom) settings, university organizations, social organizations, volunteerism, organizations related to their major, and community (non-university) activities. The specific objectives of this study were to:

1. Determine if enrollment in a course on interpersonal skills for leaders with a strong experiential and volunteerism component impacts the likelihood of increased student participation in selected university and community related activities.
2. Determine if differences exist in the likelihood of increased participation in selected university and community activities by college students' grade level.

Design of the Study

The research design used a pre-test/post-test response to a questionnaire for data collection. The survey was designed to measure changes in likelihood of participating in university and community activities as a result of student enrollment in and completion of an interpersonal skills development course.

Selection of the Population

The population of the study was identified as all students in the University of Nebraska-Lincoln who were enrolled in Ag Ed 102 during Spring Semester, 1991. Eleven sections were included for a total of 289 students represented in the pre-test, and 257 students in the post-test.

Development of the Survey

Twenty-seven activity statements addressed attitudes toward participation in six specific areas. Those six were academic (classroom) settings, university organizations, social organizations, volunteerism, organizations related to their major, and community activities (non-university). Students were asked to indicate the likelihood of participation in each activity both prior to and after completion of course activities. A Likert-type scale was used, with a "1" indicating "not likely" and a "5" indicating they were "very likely" to participate.

The survey was constructed so that responses could be grouped to allow for subscale development around the six primary participation areas. Related questions were randomly dispersed throughout the instrument.

The survey was reviewed by a jury of University of Nebraska faculty members to establish face validity. An SPSS-X Reliability Coefficient of $r=.9423$ was calculated for the entire survey, indicating a highly reliable data collection instrument.

Collection of the Data

The survey was completed by students during the first

week of classes of Spring semester, 1991. The post-test was identical to the pretest and was administered during the final week of classes, prior to final examinations.

Analysis of Data

The following analyses were performed:

1. Means and standard deviations were calculated on all demographic and survey items.
2. T-test comparisons were used to determine if significant differences existed between pre and post-test scores for all students.
3. Means and standard deviations were calculated for the six subscales of:
 - academic (classroom) settings
 - university organizations
 - volunteerism
 - organizations related to major
 - social organizations
 - community (non-university)
4. T-test comparisons were used to determine if significant differences existed between pre and post-test scores by grade level for all subscales.

Findings

When reviewing information regarding changes in the likelihood of participation for all students in 27 individual activities, it was observed that students expressed significantly higher post-test scores ($P<.05$) on 15 of the 27 items. The following are those activities in which students were more likely to participate as a result of enrollment in Ag Ed 102:

Academic (classroom) settings

take the lead in class discussions

University-wide organizations

seek information about a university-wide organization

become a member of a university-wide organization

seek office in a university-wide organization

speak out against an issue that is supported by a university-wide organization

Volunteerism

contribute time to a community volunteer program

contribute time to an individual client of a

community volunteer program

contribute money to an individual client of a

community volunteer program

contribute money to a community volunteer program

seek a leadership role (i.e. committee chair,

board member) in a community volunteer program

Organizations related to your major

seek office in a university organization related to your major

volunteer as a student representative of a committee related to your major

Community (non-University)

relate to elderly

relate to peers

When reviewing findings regarding the six subscale areas (Table 1), it was observed the total population of stu-

Table 1. Likelihood of Increased Participation in Selected University and Community Activities by All Students.

Participation In:		Pre-Test (N=289)	Post-Test (N=257)	T- Probability
Academic (classroom) settings	M	3.48	3.67	.01
	SD	.76	.81	
University-wide organizations	M	2.87	3.12	.00
	SD	.82	.87	
Volunteerism	M	3.02	3.27	.00
	SD	.76	.83	
Organizations related to major	M	3.41	3.57	.05
	SD	.86	.96	
Community (non-university)	M	3.98	4.12	.02
	SD	.61	.69	
Social organizations	M	3.30	3.37	.52
	SD	1.19	1.26	

Note. M = Mean calculated from a scale of 1 = Not Likely To Participate to 5 = Very Likely To Participate SD = Standard deviation.

dents indicated a significant likelihood ($P < .05$) of increased participation in academic (classroom) settings, university organizations, volunteerism, organizations related to their major, and community (non-university). Only the likelihood of participation in the area of social organizations failed to increase significantly.

Attitudinal Differences Related to Grade Level

When responses by grade level were analyzed, it was observed that freshman students were much more likely to change their participation habits as a result of completion of this course than students at other grade level (Table 2). Freshmen students showed a significant increase in their likelihood of participation in three of the six areas. Those areas were: university-wide organization, volunteerism, and organizations related to their major.

The likelihood of increased participation was not observed for sophomore students in any of the selected areas. The likelihood of increased participation was observed in the area of "Community (non-university)" activities for junior students, and in the area of "Volunteerism" for senior students.

Table 2. Significant Increases in Likelihood of Participation Observed by Grade Level.

Item		Pre-Test	Post-Test	T-Probability
Freshman Students	N	123	105	
Univ.-wide organizations	M	2.92	3.29	.00
	SD	.85	.90	
Volunteerism	M	2.97	3.28	.00
	SD	.75	.81	
Organizations related to major	M	3.39	3.66	.02
	SD	.85	.95	
Sophomore Students	N	70	65	
(No significant gains observed in attitudes on participation)				
Junior Students	N	47	42	
Community (non-university)	M	3.94	4.27	.02
	SD	.75	.52	
Senior Students	N	46	42	
Volunteerism	M	3.03	3.50	.01
	SD	.74	.81	

Note. M = Mean calculated from a scale of 1 = Not Likely To Participate to 5 = Very Likely To Participate SD = Standard deviation

Conclusions

The following conclusions were drawn from the findings of this study:

1. After completing the Ag Ed 102 Interpersonal Skills class with emphasis on community experiences and volunteer services, likelihood of students participation in 15 of 27 specific activities increased significantly. Among them were increased likelihood of volunteering (in a university or community setting), giving of personal time and resources, speaking out on major issues, seeking offices, serving on committees, contributing to class discussions and being more active in their college major.

2. Enrollment in an interpersonal skills course does significantly increased the likelihood of student participation in academic (classroom) settings, university-wide organizations, volunteerism, organizations related to the major, and in community settings (non-university).

3. Enrollment in an interpersonal skills course has a much greater impact on the likelihood of increased participation by freshmen students than for sophomores, juniors or seniors.

Recommendations

The following recommendations were made from the conclusions of this study:

1. Colleges of Agriculture should consider the integration of an interpersonal skills course to enhance the likelihood of increased participation in curricular, extracurricular and community activities for all students, with special emphasis on the incoming freshman student.

2. Such interpersonal skills courses should include specific emphasis on community service, volunteerism, and experiential learning that brings college students into close contact with other students, members of the community, and professional agriculturists. Such interactions can strengthen both the agricultural preparation as well as the interpersonal communications skills of the students.

3. Freshmen students should be given priority for enrollment in an interpersonal skills course over sophomore, junior, and senior students to increase the likelihood of their participation in a variety of university and community activities during the remainder of their college career.

4. Faculty implementing such course work should carefully consider which areas of increased participation should receive priority in the course and develop significant learning experiences to enhance those high priority areas with student interaction and involvement activities.

5. Further research should be conducted to identify the exit profile of the ideal graduate of Colleges of Agriculture across the country. Care should be taken to include the technical skill preparation as well as the interpersonal skills, leadership, and decision making abilities of prospective graduates.

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Laboratory Farm-Based Course Meets Content and Teaching Procedures

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Abstract

Ag 450, as an undergraduate course at Iowa State University, has been recognized for several decades as a capstone course whereby students can apply skills learned from other courses in a real farm laboratory setting.

A study was conducted to analyze the appropriateness of the course content and the importance of the teaching procedures used as perceived by the course graduates from 1969-1989.

The results indicated that the course is meeting its objectives and that the teaching procedures being used are highly effective. Students placed a high value on being able to manage and make group decisions on a real farm situation. The use of farm and financial management subject matter rated very high by the course graduates.

The results from this study have implications to community colleges, and other colleges and universities that utilize farms for demonstration or teaching laboratories.

With rapid social and cultural changes in society, it is necessary for higher education institutions to evaluate their

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programs in order to maintain high quality (Noel and Parsons, 1973). The College of Agriculture at Iowa State University, in accordance with the principles of a land-grant institution, has had a long tradition of providing high-quality instructional programs. Many of these programs have been historically guided by a commitment to learn agricultural knowledge from hands-on experience. A 1933 committee stated, "Training for farming should develop maximum efficiency in the production and marketing of agricultural products and skills in the actual management of the farming business (Committee on Agricultural Philosophy and Objectives of Iowa State College, 1933, p.66).

Recognizing the importance of teaching farm management from a hands-on approach, Dr. William G. Murray, in 1933, advanced "that before graduation a student expecting to operate a farm should have training in the farm practices of his area; the scientific principles of crops and animal production, including the use of power and equipment, the business principles of farming; and finally the making of management decisions" (Murray, 1945, p. 186). A course named Ag 450 was started in 1943 and was designed to incorporate Murray's ideas and concepts. A farm was purchased in 1943 as the laboratory for teaching the class.

A Capstone Course

Ag 450 is recognized as the capstone course where undergraduate students apply skills developed in other courses at Iowa State University. The Ag 450 farm serves as a laboratory and provides an applied farm management experience for the students. The teaching objectives of the course, as identified by Hall (1990), are as follows:

1. to manage an Iowa farm using approved farm management principles and practices;
2. to develop a pattern for decision-making;
3. to develop an understanding and respect for the opinions of others;
4. to improve group communication effectiveness; and
5. to participate in the ACTUAL challenges and satisfactions of a REAL farm operation.

Various farm activities including analyzing farm resources, studying the farm's history, setting goals, solving problems, and marketing farm production are used by the instructors as a means of providing the students with the experience of managing a typical midwestern farm (Hall, 1990).

Evaluation is a fundamental part in curriculum develop-