

students perceive the instructor to be the key to providing an effective learning environment. This study is by no means an end in itself. A great deal of further study needs to be conducted in evaluating the college classroom learning environment. However, this study has provided some useful information for College of Agriculture instructors regarding their apparent role in the classroom learning environment.

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COMPARISON

Attitudes of Students Entering the Colleges of Agriculture, Science and Humanities

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Purposes

The primary purposes of this study were: (1) to examine factors influencing College students' curriculum decisions, and (2) to compare students entering the College of Agriculture with those entering the College of Sciences and Humanities.

The hypotheses tested were:

- H₀1: There will be no difference in factors influencing choice of majors between students entering the College of Agriculture and those entering the College of Sciences and Humanities.
- H₀2: There will be no difference in factors influencing career choice of farm-reared students entering the College of Agriculture as compared with students entering the College of Sciences and Humanities.
- H₀3: There will be no difference in attitude towards agriculture of farm-reared students entering the College of Agriculture as compared with students entering the College of Sciences and Humanities.

Procedures

The participants in this study consisted of entering students in the colleges of Agriculture and Sciences and Humanities at Iowa State University during the Fall semester of 1985. The sample was taken from new students in the College of Agriculture who were enrolled in an agriculture orientation class during the Fall semester and who attended their orientation class the day the survey was administered. New freshmen and transfer students are required to enroll in an orientation class unless extenuating circumstances of conflicts prevent their enrollment. Useable results were obtained from 417 students in the agriculture orientation classes, which represented 84 percent of the new students entering the College of Agriculture during Fall semester.

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The sample also included new students in the Sciences and Humanities College who were enrolled in the Open option or Pre-business option and attended the selected orientation classes the day the survey was administered. Useable results were obtained from 375 students (84%) who were surveyed and enrolled in the Sciences and Humanities Open option and 80 students (56%) who were surveyed and enrolled in Pre-business option.

The data for this study were collected by means of an instrument used to collect basic demographic information from new students in the College of Agriculture. The data collection instrument included a section which asked respondents to indicate, using a four-point scale, the level of influence certain factors had on their choice of majors and a section to assess students' attitude toward agriculture and their reaction to factors influencing career decisions. Items were selected based on the literature review and experiences of the researchers and college administrators. A six-point agreement scale was used by respondents to evaluate items in this section of the questionnaire.

Following approval by the Human Subjects Committee, the instrument was distributed to instructors of the departmental orientation classes during the second week of classes. An information sheet describing the administration procedures was provided. A telephone call was made to all instructors not returning the answer sheets after two weeks. All instructors returned the answer sheets within a three week period.

All answer sheets were submitted to the University Test and Evaluation Center for transfer of data to disk. An initial frequency run was made used to check the data for possible errors. After error checks were made, the data were uploaded to the mainframe computer at the University Computation Center.

Analysis of Data

The Statistical Package for the Social Sciences (SPSSX) (Nie, 1983) served as the basis for selection and computation of statistical procedures. Subprogram T-TEST was used to compare factors which influenced choice of majors by students entering the College of

TABLE 1. Influence of Selected Factors on Curriculum Choice by College

Factor	College	Number	Mean	SD	T-value
Parents	Agr.	415	2.32	1.062	3.70**
	S & H	437	2.06	1.033	
Vo-Ag Instructor	Agr.	190	2.18	1.131	7.92**
	S & H	29	1.21	0.491	
University Literature	Agr.	411	1.96	1.032	6.92**
	S & H	437	1.51	0.828	
Other Family	Agr.	414	1.84	0.958	2.09*
	S & H	437	1.71	0.942	
University Staff	Agr.	412	1.80	1.037	4.77**
	S & H	437	1.49	0.848	
University Student	Agr.	412	1.76	0.991	4.28**
	S & H	437	1.49	0.834	
High School Teachers	Agr.	413	1.47	0.814	-2.06*
	S & H	437	1.59	0.955	
High School Classmates	Agr.	414	1.50	0.820	-0.32
	S & H	438	1.52	0.825	
School Counselor	Agr.	415	1.41	0.730	-2.03*
	S & H	437	1.2	0.817	
Scholarships	Agr.	413	1.46	0.871	4.78**
	S & H	438	1.21	0.609	
Extension Personnel	Agr.	412	1.35	0.748	3.84**
	S & H	434	1.18	0.32	

- a Means based on a r-point scale with 1 = great, 2 = some, 3 = little, and 4 = none
- b Students who took V-Ag
- * Significant at the 0.05 level
- ** Significant at the 0.01 level

Agriculture with students in Sciences and Humanities. All farm-reared students surveyed in the College of Sciences and Humanities were grouped together for comparison of their attitudes toward agriculture with entering agricultural students with similar backgrounds.

Table 2. Comparison of Factors Influencing Career Choice Between Farm-reared Students by College

Factors	Agriculture			Sciences & Humanities			T-value
	N	M _s	S.D.	N	M _s	S.D.	
Prestige of an occupation is important	209	3.60	1.401	76	3.87	1.389	-1.42
Family income affected choice of curriculum	210	2.48	1.461	76	3.87	1.389	-1.95
Social status of occupation is important	210	3.38	1.379	74	3.39	1.373	-0.06
Parents look favorably upon different occupation	210	5.03	0.948	75	3.73	1.590	-1.98*
Job security is important	211	5.19	0.988	75	3.70	1.726	-2.28*
Farm situation affected occupational choice	210	3.20	1.413	74	3.70	1.726	-2.28*

- a Statements have been abbreviated
- b Means based on a 6-point scale with 1 (strongly disagree) through 6 (strongly agree)
- * Significant at the .05 level

Results

Several factors had an influence on the student's curriculum decision rather than a single factor. The mean influence of parents by students in both colleges was higher than similar means for any other factor (Table 1).

There were significant differences between college student means for all factors except the influence of high school classmates. College of Agriculture students indicated that parents, vo-ag instructors, university literature, other family members, university staff, university students, scholarships, and extension personnel had a significantly greater influence on their choices of majors than students enrolled in the College of Sciences and Humanities. Conversely, high school teachers and counselors were significantly more influential in helping the College of Sciences and Humanities' students select their majors than they were for students enrolled in agriculture. For students who took vocational agriculture in high school, the vo-ag instructor was second only to parents in their influence on College of Agriculture students selecting their majors.

The second phase of the study was a comparison of factors influencing career choices of the farm-reared students enrolled in the College of Agriculture with those enrolled in Sciences and Humanities. Comparisons of their attitudes toward agriculture were also made.

Of the original 417 students studied in the College of Agriculture, 218 (52 percent) students grew up on a farm. In contrast, approximately twenty percent of the students studied from the College of Sciences and Humanities grew up on a farm.

Significant differences ($p = 0.05$) were found between groups for the statements which dealt with parental encouragement to enter an occupation different than their own and the affects of the current farm situation (Table 2). The null hypothesis (H_2) was rejected for these two factors, and failed to be rejected for the other five factors. Students in the College of Sciences and Humanities indicated that their parents encouraged them to enter an occupation other than farming more so than did students in agriculture. Moreover, farm-reared students in Sciences and Humanities College occupational choice was affected more by the current farm situation.

Parents' views and job security were important to both groups in selecting their career choice. This supported literature findings that parents influence to a large extent their children's occupational choice.

Highly significant differences ($p = 0.01$) were found between students in the colleges for the statements dealing with agriculture as an expanding industry, job availability in agriculture, opportunities in agriculture, salaries for agricultural jobs, and advancement opportunities (Table 3). The null hypothesis (H_3) was rejected for these statements. It should be noted that both groups disagreed with the statement

that salaries in agriculture were generally higher than non-agriculture careers.

There were no significant differences in mean scores between students in the colleges for the items related to respect for people employed in agriculture, effects of the agricultural recession, and agriculture's importance to the economy. The null hypothesis failed to be rejected for these three statements. Both groups strongly agreed that agriculture is important to the economy. Moreover, the mean scores of both groups revealed that many of the students' families have been adversely affected by the agricultural recession.

Conclusions

Parents had the greatest influence on students' decision in selecting their major, although results support the theory that a number of factors affect students' decisions. Significant differences were found between students entering the two colleges for all factors except one. For College of Agriculture students who took vocational agriculture in high school, their vo-ag instructors were second only to parents in their influence on students selecting their majors.

When comparing factors influencing career choice of farm-reared students entering the College of Agriculture with farm-reared students entering the College of Sciences and Humanities, significant difference were found for two factors. The Sciences and Humanities students indicated that their parents had encouraged them to enter an occupation different from their own to a greater degree than did agriculture students. College of Sciences and Humanities students also indicated that the current farm situation had a greater effect on their occupational choice.

When attitudes towards agriculture of farm-reared students entering the two colleges were compared, highly significant differences were found for five of the eight factors. The farm-reared students from the College of Agriculture were basically more optimistic about agriculture than their counterparts in Sciences and Humanities. They viewed agriculture as an expanding industry which will have adequate jobs in five years. Agriculture students also felt that there are abundant opportunities for advancement in agriculture. The farm-reared students from the College of Sciences and Humanities felt that opportunities in agriculture were limited at this time. Both groups disagreed that the pay in agricultural related occupations is generally higher than in non-agricultural fields; however, agriculture students did not disagree as strongly as did the Sciences and Humanities students.

Recommendations

1. The College of Agriculture needs to inform parents of the opportunities available in agriculture beyond farming. Literature, student ambassadors, recruiters, and other means should be directed toward informing the prospective student and his/her parents. Students need to feel that their parents will look favorably upon their career choice.

Table 3. Comparison of Attitudes Toward Agriculture Between Farm-reared Students by College

Attitudes	Agriculture			Sciences & Humanities			T-value
	N	M	S.D.	N	M	S.D.	
Agr. is an expanding industry	210	4.30	1.283	76	3.17	1.636	5.44**
Adequate jobs in Agr. 5 years from now	210	4.23	1.193	74	2.96	1.308	7.70**
People employed in Agr. are well respected	211	3.64	1.223	74	3.31	1.461	1.92
Unlimited opportunities in Agr. at this time	211	3.10	1.400	73	2.32	1.413	4.14**
Family adversely affected by recession	210	4.82	1.231	74	4.92	1.236	-0.57
Agr. is vital to American economy	211	5.56	0.899	75	5.51	0.935	0.47
Pay is higher in Agr. occupations	208	2.12	1.040	74	1.70	0.789	3.58**
Abundant opportunities for advancement in Agr.	202	3.89	1.156	74	2.55	1.167	8.46**

^aStatements have been abbreviated

^bMeans based on a 6-point scale with 1 (strongly disagree) through 6 (strongly agree)

** Significant at the .01 level

2. The college faculty must continue to work with high school vocational agriculture instructors, guidance counselors, and teachers, and emphasize the opportunities available in agriculture. The college needs to make job projections and outlooks available and stress the agricultural fields where shortages are anticipated.

3. Efforts need to be made to inform students attending high schools which do not offer vocational agriculture of the opportunities in agriculture.

4. Job security should be stressed in promotional literature and materials describing agricultural opportunities.

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