

JOB SATISFACTION AS AN OUTCOME MEASURE OF THE EFFECTIVENESS OF AN AGRICULTURAL COMMUNICATIONS ACADEMIC PROGRAM

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Abstract

Agricultural communications is an academic program area that has evolved from its early beginnings in print-based agricultural journalism. Due to the changing nature of technology and the need to communicate to diverse, increasingly urbanized audiences, agricultural communications has evolved to include public relations, marketing, broadcasting and Web-based communications, consequently impacting the role and responsibilities of many professional agricultural communicators. Although most of the research that has been conducted on agricultural communicators has focused on their perceptions as to how to improve educational programs and curricula, few studies have looked at the job satisfaction of graduates once they leave the programs that prepared them for their subsequent careers. A descriptive survey of a population of recent graduates of the University of Florida's agricultural communications program was conducted to assess how satisfied respondents were with their jobs, as well as explore the relationships between facets of job satisfaction and graduates' perceptions as to the effectiveness of their educational preparation. Results of the study indicated that the majority of respondents were generally satisfied with their positions. Respondents' perceptions of their opportunities for promotion, their co-workers and the work itself were also positively correlated with their evaluations of the effectiveness of the university's educational preparation.

Introduction

“Jobs in agricultural communications offer excitement, adventure and the opportunity to keep up-to-the minute on the latest in every field of agriculture” (National Project in Agricultural Communications, 1955, p. 19). Although this promotional statement was written almost 50 years ago, many would agree that it still pertains to the careers of modern-day agricultural communicators. In the early 1900s, a need to disseminate research results to agricultural media audiences caused universities to create print-based agricultural journalism programs designed to educate students not only about journalism, but also in regard to specific knowledge and skills unique to the agricultural industry (Duley, Jensen, & O'Brien, 1984). Over the years, however, academic programs have continued to evolve as both agriculture and new communication technologies have

developed (Terry & Bailey-Evans, 1995). Commenting on the need for agricultural communications curricula to stay current, Buck and Paulson (1995) wrote, "As the profession of agricultural communications continues to develop and refine its mission in society, we must relate this mission to our academic programs" (p. 1).

Today, there are approximately 30 programs in agricultural communications nationwide, offering diverse curricula including courses in journalism, broadcasting, public relations and Web-based communications. In addition, several academic programs now offer both undergraduate and graduate degrees in the field. Since a characteristic of most academic programs in agricultural communications is that they continue to evolve to meet changing local, regional and national needs, however, such programs often differ substantially as to course

elements and requirements (Reisner, 1990). To that end, most of the research that has been conducted on agricultural communicators has focused on their perceptions as to how to improve programs and curriculum for current and future students (Bailey-Evans, 1994; Duncan, 1957; Evans, 1969; Evans & Bolick, 1982; Sprecker, 1996; Terry, Vaughn, Vernon, Lockaby, Bailey-Evans, & Rehrman, 1994).

On the other hand, research conducted to assess the job satisfaction of agricultural communications graduates once they leave the programs that prepared them for their careers has been limited (Bowen & Cooper, 1989). How effective was these graduates' educational preparation in terms of being satisfied with the job they are currently doing? What aspects of course preparation were most useful? And, given the fact that academic programs offer both undergraduate and graduate degrees in agricultural communications, how likely are those who have graduated with either a bachelor's or master's degree to seek an advanced degree in agricultural communications?

Especially in a career field that is rapidly expanding and changing, job satisfaction may represent a measure of program effectiveness that can tell us much about how to continue to respond to the educational needs of students in this field, as well as suggest directions for future curriculum and program development. Researchers (Fraze, 1986) have concluded that the success of most educational programs, or of the college degree earned, can be measured in terms of career choice and job satisfaction. Thus, follow-up on graduates' career patterns may be an indicator of the effectiveness of an educational program (Cheek & McGhee, 1990) and perhaps may serve as an indirect indicator as to whether the curriculum is changing rapidly enough to meet the needs of past, current, and future graduates.

Purpose and Objectives

The purpose of this study was to describe and explore factors affecting the job satisfaction of a population of recent agricultural communications graduates drawn from the University of Florida. The

program at the university was chosen for the study due to the fact that it is a representative program with a relative large and growing number of students at both the undergraduate and graduate (including Ph.D.) levels. The program is also of fairly recent duration with a large base of undergraduates and a small but growing number of graduate students. The program was also the focus of a previous study (Rudd & Sprecker, 1997; Sprecker, 1996), which specifically recommended developing competencies designed to keep pace with changing technology and job requirements in the field. Since that time, these recommendations were implemented into the university's program, primarily through adding more advanced courses in writing and visual/computer communication. Furthermore, since the time of Sprecker's study, additional graduate courses in agricultural communications have been added and a new doctoral program initiated with a specialization in the field.

Based on the above, it was felt that there was a need to describe and explore the relationship between job satisfaction of the university's agricultural communication graduates and their perceptions of their educational preparation, as well as their specific views on what the focus of an agricultural communication program at the graduate level should be. As such, the objectives of the study were as follows:

1. Describe respondents in terms of demographic factors, current occupational status and job title;
2. Assess respondents' perceptions as to their level of job satisfaction in their current positions;
3. Explore the relationship between job satisfaction and respondents' perceptions of their educational experiences, including how adequately they felt their educational experiences had prepared them for their careers and the likelihood of their pursuing additional advanced coursework in agricultural communications.

Theoretical Framework

Job satisfaction is the degree to which people like their jobs (Spector, 1997). Job satisfaction can be regarded as one aspect of life satisfaction; experiences on the job influence perceptions off the job, and vice versa (Davis & Newstrom, 1989). Some researchers have suggested that a valid measure of overall level of job satisfaction is the most useful information to have about an employee (Rosnowski & Hulin, 1992). Managers, supervisors, human resource specialists, employees, and citizens in general are all concerned with ways of improving job satisfaction (Cranny, Smith, & Stone, 1992).

The assessment of employee attitudes such as job satisfaction has become a common activity in organizations in which management is concerned with the physical and psychological well being of people (Spector, 1997). Although many measures of job satisfaction exist, such as Hackman and Oldham's (1976) job characteristic model, one of the most relevant scale inventories with respect to the current population is the Job Description Index (JDI) (Smith, Kendall, & Hulin, 1969), a facet scale with five subscale index factors (work, pay, opportunities for promotion, supervision, and co-workers). The JDI is packaged and administered in conjunction with the Job in General (JIG) scale, an 18-item inventory that assesses overall job satisfaction (Ironson, Smith, Brannick, Gibson, & Paul, 1989). Spector favorably evaluated the psychometric properties of the JDI, indicating that the subscales have very good reliability and the extensive body of literature on studies conducted using the JDI provided good validation evidence (Spector, 1997).

Characteristics of Agricultural Communications as a Profession and an Academic Discipline

Agricultural communications students are taught to disseminate agricultural information to farm or non-farm audiences through various media (Terry, Vaughn, Vernon, Lockaby, Bailey-Evans, & Rehrman, 1994). Over time, however, competencies needed for professional

agricultural communications careers have changed with technology and job requirements (Rudd & Sprecker, 1997). In a study of graduate programs, Boone, Paulson, and Barrick (1993) found that graduate students in agricultural communications were educated in human relations, agricultural subject matter, communications skills, and communications systems. Reisner (1990) found that the most predominant characteristic of academic programs in agricultural communications was variety. She found that agricultural curricular requirements varied from highly prescribed to no specific required agricultural courses. However, all universities that she studied required a core communications curricula plus electives.

Based on their findings, Terry and Bailey-Evans (1995) acknowledged that modern agricultural communicators should have outstanding written communications skills and be proficient in operating microcomputers to accomplish a variety of tasks including desktop publishing, word processing, graphical design, networking, and management. They also recognized internship experiences as a valuable and important part of the educational training of agricultural communications professionals. Business, including marketing and agricultural economics, was an important area of knowledge as well (Terry & Bailey-Evans, 1995).

Bowen and Cooper (1989) found that business and marketing, public relations, and writing and editing were major areas of employment for agricultural communications graduates of The Ohio State University. On the other hand, O'Malley (1992) wrote that there was not a category or typical field where Michigan State University agricultural and natural resources communications alumni were employed.

Advanced Study in Agricultural Communications

In their study, Rudd and Sprecker (1997) recommended that University of Florida agricultural communications students should seek a master's degree if additional expertise was sought. O'Malley (1992) found that approximately 10% of female and 17% of

male Michigan State University agricultural and natural resources communications alumni earned master's degrees. Many more (62% of women and 67% of men) communicated a desire to earn master's or doctoral degrees. In a 1991 study, the majority of Agricultural Communicators in Education members indicated that a Master of Science degree in agricultural communications was needed and that the primary focus of the degree should be communications skill development (Wilson, Paulson, & Henderson, 1991).

Overall, research indicates that professional agricultural communicators tend to have an extensive background in agriculture and use a variety of communication skills in their work (Terry & Bailey-Evans, 1995). Rudd and Sprecker (1997) found that versatile communications skills are more important than agricultural knowledge. Students perceived this difference as well, believing that courses in journalism and communication were more important than were agriculture or general education courses (Bowen & Cooper, 1989).

Tucker and Paulson (1988) found that in a study of agricultural communication students, most wanted to remain in agriculture after graduation. Many students indicated a desire to promote agriculture and to work with people in agriculture. Rudd and Sprecker (1997), however, found that students with interests in certain segments of agricultural communications face limited job opportunities that do not exist in other segments and that more faculty help in making job contacts may be necessary.

Rudd and Sprecker also recommended that employment needs of agricultural communications graduates be compared with those of mass communications graduates to develop a greater understanding of the education needs of both.

Methods/Procedures

The research design for this study was a one-shot case study in which a two-part survey questionnaire was administered to a population ($N = 38$) of recent (1994-present) agricultural communications alumni from the University of Florida. Two scale instruments, The JDI (Smith et al., 1969) and the JIG (Ironson et al., 1989), were chosen to measure job satisfaction because of their perceived relevance to the employee group under investigation (University of Florida agricultural communication alumni). The JDI is a facet scale that contains 72 items with either 9 or 19 items per subscale (Spector, 1997). Each subscale includes a set of evaluative adjectives or short phrases that are designed to be descriptive of five job facets. The five facets of the scale are as follows: work on the present job, present pay, opportunities for promotion, supervision and co-workers (people). For each item, respondents can choose to answer "yes" if the adjective or phrase describes their work, "no" if it does not describe it or "?" if they cannot decide. Scoring is derived by assigning numerical weighted values to the yes, no and uncertain responses for each facet subscale. Table 1 shows an example of the "present pay" subscale:

Table 1
Example of Present Pay Subscale Facet Items

Think of the pay you get now. How well does each of the following words or phrases describe your present pay? (Yes = "Y", No = "N" or "?" = Uncertain.)

<input type="checkbox"/> Income adequate for normal expenses	<input type="checkbox"/> Less than I deserve
<input type="checkbox"/> Fair	<input type="checkbox"/> Well paid
<input type="checkbox"/> Barely live on income	<input type="checkbox"/> Underpaid
<input type="checkbox"/> Bad	<input type="checkbox"/> Insecure
<input type="checkbox"/> Income provides luxuries	

In addition to the JDI, the JIG is typically used to measure overall satisfaction with respondents' jobs. The JIG consists of 18 evaluative adjectives, answered and scored in the same manner as the JDI, in response to the initial question "Think of your job in general. All in all, what is it like most of the time?"

The second part of the survey was a demographic instrument designed to collect demographic information including employment history, educational experiences at the University of Florida, gender, age, and marital status. This part of the instrument also included a series of five statements that asked respondents to rate their perceptions of their educational experiences and the importance and likelihood of their pursuing advanced coursework in the future. Item responses for four of the items ranged from one to seven on a semantic differential scale where seven was the highest coded positive value, while the last item was an open ended question, asking respondents "if you could take additional coursework to improve professionally, what would you take?" In an effort to control for measurement error for the current study, the demographic instrument was submitted to a panel of experts comprised of agricultural communications and agricultural education faculty to establish its content and face validity. Based upon the recommendations of the panel, appropriate changes were made in order to make the instrument valid for data collection.

Using Dillman's (1989) techniques, a

mailed questionnaire, coded to identify non-respondents, was utilized to collect data. A reminder postcard was sent to all respondents and non-respondents 10 days after the first packet was sent. A second packet consisting of a modified cover letter and all other elements from the first packet was sent to the non-respondents one month after the first packet was sent. This technique yielded an overall survey response rate of 80 % (N = 31).

To control for non-response error, respondents were categorized into early and late groups, which were compared to check for any significant differences. No significant differences were found (Ary, Jacobs & Razavieh, 1996).

Results

To insure reliability of the JDI and JIG scales with the sample population under study, scale reliability analysis was conducted using cronbach's alpha. The resulting standardized item alpha for the JDI was .95; standardized item alpha for the combined JDI and JIG was .84.

Objective One: Describe Respondents' According to Demographic Factors, Current Occupational Status and Job Title.

Of the 31 respondents who returned the survey, the overwhelming majority (93.5%) were female and 41.9% were 25 to 29 years of age. More than half of the graduates (58.1%) were married, and 29% had or were pursuing a graduate degree (see Table 2).

Table 2
 Respondents' Age, Marital Status, and Degree

Age	N	%	Single %	Married %	B.S. %	M.S.%
20-24	11	35.5	19.4	16.1	35.5	0
25-29	13	41.9	12.9	29.0	29.0	12.9
30-34	5	16.1	3.2	12.9	6.5	9.7
35-39	1	3.2	3.2	0	0	3.2
40+	1	3.2	3.2	0	0	3.2
Total	31	100.0	41.9	58.1	71	2.0

Occupational Status

Most of the respondents (90.3%) indicated that they have held one to two primary jobs since graduating from the University of Florida. Of these, 67.7% of the respondents indicated that they had held positions that they considered to be in agricultural communications. Although 83.9% were employed full-time and 6.5% were employed part-time, approximately 10% (3 respondents) were unemployed. Approximately 80% of the respondents with jobs had been employed by their current organizations for less than two years. One-quarter of the graduates indicated that they worked for organizations that employed 11 to 25 people. Slightly less (21.4%)

indicated that their companies employed 26-100 people. When asked to choose the description that most closely described their organizations, 32% indicated their organizations were agricultural commodity associations. Approximately 40% of respondents indicated that they worked for industries not listed on the questionnaire. Two respondents worked for public relations agencies that did not have agriculture accounts and another two respondents worked for agribusiness companies. Other industries listed by respondents are as follows: agricultural publication, education association, travel, legal, chemical manufacturer, earthmover, and public/non-profit library (see Table 3).

Table 3
 Respondents' Employing Organizations

Industry Category	Total		Bachelor's		Master's	
	N	Percent	N	Percent	N	Percent
Other	11	39.3	9	45.0	2	25.0
Ag commodity association	9	32.1	7	35.0	2	25.0
Ag-related non-profit organization	2	7.1	1	5.0	1	12.5
Higher education	2	7.1	0	0	2	25.0
Agency with ag accounts*	1	3.6	1	5.0	0	0
Natural resources company or organization	1	3.6	0	0	1	12.5
Cooperative Extension Service	1	3.6	1	5.0	0	0
Self employed	1	3.6	1	5.0	0	0

Note. Advertising, public relations or marketing communications agency with agriculture accounts.

Job Tasks and Occupational Status

In response to the question, "Do the majority of your job tasks relate to working in food, agriculture and natural resources?" just over half of the graduates (55.6%) answered "yes." When asked to choose the most appropriate descriptor of their current occupational status, 44.4% of the total respondents chose education, communications or information specialists, while 62.5% of those with a graduate degree chose this option. Approximately one-quarter of the respondents indicated that they were marketing, merchandising, or sales representatives.

Objective Two: Assess Respondents' Perceptions as to Their Level of Job Satisfaction in Their Current Positions.

For the Job in General (JIG) scale, the average mean score for all respondents was

45.21 on a scale from 0 to 54. To conduct the analysis, mean distributions were calculated and broken down demographically by age, marital status, and degree earned. The average mean score for respondents with a master's degree was 49.11; the mean score for those who earned bachelor's degrees in agricultural communications was 43.45. The JIG average score for Bachelor of Science graduates in this study was close to the reported median score ($M = 43.00$) for a norm group of people with 2 to 5 years job tenure (Balzar, Kihm, Smith, Irwin, Bachiochi, Robie, Sinar, & Parra, 1997) but somewhat higher than reported norms for people in the same age range ($M = 37.00$). With respect to age, one respondent in the 35-39 age bracket scored 54, the highest possible score. Means were fairly close for the other age ranges, as well as for married and single respondents (see Table 4).

Table 4
 Mean Scores for Job in General Scale According to Demographic Breakdown

	N	M	SD
20-24	10	42.40	13.54
25-29	12	46.75	7.22
30-34	5	46.00	10.17
35-39	1	54.00	--
40+	1	42.00	--
B.S.	20	43.45	11.01
M.S.	9	49.11	6.31
Single	12	46.25	8.91
Married	17	44.47	11.00
Total	29	45.21	10.07

Note. Lowest possible score is 0; highest possible score is 54.

Job Descriptive Index

Comparison of the means for the JDI facets seemed to indicate that overall, respondents were most satisfied with the supervision ($M = 46.63$) they received in their primary jobs and were least satisfied with opportunities for promotion ($M=32.40$). Means for satisfaction with the work itself ($M=45.30$) and co-workers ($M=42.63$) were higher than the mean for pay ($M=33.13$).

Interestingly, for B.S. graduates, promotion ranked as the lowest subscale factor, while for M.S. graduates, pay was the lowest factor. Scale verification reports indicate that the average scores for the JDI subscales in this study are similar to the norm group that had high median scores for work, co-workers, and supervision. Pay and promotion were consistently lower for these groups as well (See Table 5).

Table 5
Mean Scores for Job Descriptive Index Subscales

Subscale	Total			Bachelor's			Master's		
	N	M	SD	N	M	SD	N	M	SD
Supervision	30	46.63	7.73	21	45.38	8.05	9	49.56	6.41
Work	30	45.30	9.97	21	43.43	10.82	9	49.67	6.04
Co-workers	30	42.63	10.88	21	40.71	11.49	9	47.11	8.21
Pay	30	33.13	16.23	21	36.38	14.91	9	25.56	17.52
Promotion	30	32.40	19.86	21	33.24	20.91	9	30.44	18.19

Note. Lowest possible score is 0; highest possible score is 54.

Objective 3: Explore The Relationship Between Job Satisfaction and Respondents' Perceptions of Their Educational Experiences.

Responses to the series of items asking respondents about their perceptions of their educational experience and likelihood of pursuing advanced coursework indicated that a majority of respondents felt that the agricultural communications coursework they received at the university was effective in preparing them for their current or most recent primary jobs ($M=5.97$). Most also thought that their educational experience had prepared them for their careers ($M=5.84$). Respondents who had earned a B.S. degree also felt that they gained skills during their undergraduate internships for their employment after graduation ($M=5.95$).

The majority of respondents were relatively neutral when asked if earning a graduate degree would be beneficial to their careers ($M=4.33$). The likelihood of most respondents earning a higher degree in agricultural communications was relatively low ($M=2.13$) as well.

To explore the relationships between job

satisfaction and each of the items designed to assess respondents' perceptions of their educational experiences and likelihood of obtaining another degree, correlations were calculated between each of the JDI facets and the JIG and the four educational experience/likelihood items. Although results indicated no significant correlational relationships between the JIG and the educational experience/likelihood items, there were significant positive correlations between three of the JDI facets: satisfaction with opportunities for promotion ($r= .40$); co-workers ($r= .36$); and the work itself ($r = .36$), and respondents' perceptions as to how adequately they felt their educational experience at the university had prepared them for their careers.

When asked the open-ended question, "If you could take additional coursework to develop professionally, what would you take?" all but four respondents indicated that they would take additional coursework. The top choice in additional coursework was marketing, followed by public relations, management, and Web design. Finally, respondents were also asked to choose what the focus of a graduate curriculum in agricultural communications should be.

Respondents could choose from one or more items, as well as write in additional items. The largest group of respondents (22.6%) chose strategy, followed by skills (12.9%), and professional development (6.5%).

When respondents were asked, "Are you pursuing or have you pursued additional academic degrees?" approximately 18% of bachelor's graduates and one-third of master's graduates answered "yes." Of these respondents, one had earned or was earning a second bachelor's degree, four had earned or were earning master's degrees and two had earned or were pursuing doctoral degrees.

Conclusions and Recommendations

The results of the study indicate that responding agricultural communications alumni in this study were employed and generally satisfied with their positions as measured by the JIG and JDI indexes. However, for the respondents in this study, overall job satisfaction level seemed to increase with age and M.S. graduates appeared to have a higher level of satisfaction than B.S. graduates. Although generalizability of the results is limited due to the focus on one institution's agricultural communications academic program, the results do suggest that there is some evidence to support a relationship between graduates' perceptions of the facets of their current job satisfaction and their evaluations of the effectiveness of their educational preparation. Further, the finding that a large percentage of graduates are currently employed in the field and, for the most part, satisfied with their jobs is an outcome measure that may serve as an indicator of overall program success.

On the other hand, the relatively lower ratings respondents gave to the extent to which they thought an advanced degree would be beneficial to their careers and to the likelihood of earning an advanced degree in agricultural communications may indicate a need to focus further attention at the graduate level curriculum. Sprecker (1996) said that administrators and faculty would be wise to heed advice from instructors, practitioners, and alumni to ensure that students are not only qualified to enter the

workplace upon graduation, but are equipped to excel throughout their careers. Based on the results of this study, former graduates were most interested in taking advanced courses that focused on a mix of communication strategy and skills coursework as well as more general professional development. This suggests that academic programs may want to ensure that agricultural communications graduate curricula include courses that focus on communication, strategy, and application. Developing a better understanding of the potential need and focus of graduate curricula in agricultural communication may represent an important and useful direction for further study in this area.

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