

An Analysis of Job Satisfaction and Job Satisfier Factors Among Six Taxonomies of Agricultural Education Teachers

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Job satisfaction can be described as "the condition of contentment with one's work and environment, denoting a positive attitude" (Wood, 1973, p. 8). According to Lawler (1977), the extent to which people are satisfied with their jobs should be a societal concern, as work experiences have profound effects on both the individual and on society as a whole. Similarly, 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).

Several researchers (Davis & Newstrom, 1989; Lawler, 1977; Porter & Steers, 1977; Newcomb, Betts, & Cano, 1987) have attributed job turnover, absenteeism and job burnout to a lack of job satisfaction. Relatedly, Grady (1988) conducted a study which found support for a possible causal chain leading to job turnover/retention. The chain proceeded from individual expectation through commitment propensity, along with meaningfulness of the job to increased commitment, through intention, and finally to turnover/retention.

The impact of job dissatisfaction goes far beyond the previously mentioned consequences. For instance, Mowday (1984) suggested that the negative effects of job turnover on organizations may include: increased costs to recruit, select, and train new employees; demoralization of remaining employees; negative public relations; disruption of day-to-day activities; and decreased organizational opportunities to pursue growth strategies. In order to curb the negative consequences associated with job dissatisfaction, a thorough understanding is required as to which factors lead to job satisfaction and which create job dissatisfaction (Davis & Newstrom, 1989; Mowday, 1984; Berns, 1989).

Many theoretical models have been posited for studying job satisfaction, however the Motivator-Hygiene Theory developed by Herzberg, Mausner, and Snyderman (1959) will provide the theoretical framework for this study. Motivator-Hygiene theory states that one distinct set of factors is associated with job satisfaction and another separate set of factors is associated with job dissatisfaction (Herzberg et al., 1959). Motivator-Hygiene theory varies greatly from traditional views of job satisfaction, which assumes that satisfaction and dissatisfaction are simply opposite states on a single continuum (Bowen, 1980; Davis & Newstrom, 1989; Lawler, 1977; Sergiovanni, 1984; Whitesett & Winslow, 1967). The factors associated with job satisfaction were labeled "motivators" by Herzberg et al. (1959) and included achievement, advancement, recognition, responsibility, and the work itself. The "motivator" factors were specifically measured in this study and referred to as job satisfier factors.

Purpose and Objectives

The purpose of this study was to investigate the overall job satisfaction of six taxonomies of secondary agriculture teachers and the specific factors associated with job satisfaction. To guide this study the following research objectives were formulated:

Describe and compare selected demographic characteristics of secondary agriculture teachers across taxonomies.

Describe relationships between selected demographic characteristics of agricultural education teachers.

Describe relationships between secondary agriculture teachers' level of job satisfaction and selected demographic variables by taxonomy.

Describe relationships between selected job satisfier factors (achievement, advancement, recognition, responsibility, and the work itself) and the overall job satisfaction of secondary agriculture teachers by taxonomy.

Procedures

Population and Sample

The population for this descriptive-correlational study was all secondary teachers of agricultural education in Ohio (N=558). The sample consisted of a census of female secondary agriculture teachers (N=45) and male secondary agriculture teachers in the taxonomies of Agricultural Business (N=29), Farm Business Planning and Analysis (FBPA) (N=27), and Natural Resources (N=13). A random sample of male secondary teachers of agriculture was drawn from Agricultural Mechanics (N=81, n=70), Horticulture (N=71, n=60), and Production Agriculture (N=292, n=170). Cochran's (1977) formula for a five percent chance of error was used to determine the sample sizes. The total sample consisted of 414 secondary agricultural education teachers.

Instrumentation

Wood's (1973) instrument constituted Part I of the questionnaire and provided the basis for describing teacher perceptions regarding the following job satisfier factors: achievement, advancement, recognition, responsibility, and work itself. The instrument was a Likert type scale with responses ranging from 1 (very dissatisfied) to 6 (very satisfied). Teachers were asked to select responses that best represented their level of satisfaction.

The Grayfield-Rothe "Job Satisfaction Index", as modified by Warner (1973), was used to measure job satisfaction when all facets of the job were considered. The instrument was a Likert type scale with responses ranging from 1 (strongly disagree) to 5 (strongly agree). Teachers were asked to select responses that best represented how they felt about their job. The "Job Satisfaction Index" constituted Part II of the questionnaire. Part III of the questionnaire consisted of demographic variables.

Content and fact validity were established by a panel of experts consisting of teacher educators, teachers of agriculture, and graduate students. The instrument was pilot tested with a group of agricultural education teachers not included in the sample. Cronbach's alpha for the questionnaire was .89.

Data Collection

Five days prior to mailing the complete questionnaire package which contained a cover letter, questionnaire, and stamped return envelope, a post card was sent to those in the sample to announce the forthcoming package. Appropriate follow-up procedures were employed following the mailing of the original package and an 81 percent response was realized. Nonresponse error was controlled by comparing early to late respondents (Miller & Smith, 1983). No significant differences were found between the early and late respondents.

Analysis of Data

All data were analyzed using the Statistical Package for the Social Sciences, Personal Computer version (SPSS/PC+). The statistical procedures used were descriptive (frequencies, percentages, means, standard deviations, and correlations) and inferential (F-ratios, and Chi-square). The alpha level was set a priori at .05. All correlation coefficients were interpreted utilizing Davis' (1971) descriptors.

Results

Of those teachers included in the analysis, most were Production Agriculture teachers followed by teachers of Horticulture, Agricultural Mechanics, Agricultural Business, FBPA, and Natural Resources. (Table 1). Table 1 further shows that the mean age for the agriculture teachers ranged from 37.37 years to 44.85 years. One way analysis of variance and the Tukey Post-hoc procedure revealed that Agricultural Mechanics teachers were significantly older than teachers of Production Agriculture and Horticulture.

Table 1. Means, Standard Deviations, and F-Ratios for Selected Demographic Variables of Agricultural Education Teachers

Teachers	Demographic variable					
	Age		Years of teaching		Years in current position	
	Mean	S.D.	Mean	S.D.	Mean	S.D.
Agricultural Business (n=27)	42.04	8.13	15.89	7.03	10.52	6.67
Agricultural Mechanics (n=55)	44.85	11.01	10.76	6.17	8.85	5.95
FBPA (n=16)	44.06	15.31	15.81	11.11	6.88	4.54
Horticulture (n=64)	38.02	7.62	12.63	6.71	10.64	6.59
Natural Resources (n=15)	38.33	7.76	12.00	6.00	9.93	6.56
Production Agric. (n=146)	37.37	7.91	13.23	7.57	10.22	7.18
F-value	7.26		2.48		1.19	
Probability	.001 ^a		.032 ^b		.313	

^aAgricultural Mechanics teachers were significantly older than Production Agriculture and Horticulture teachers.

^bAgricultural Business teachers had significantly more years of teaching experience than Agricultural Mechanics teachers.

The mean number of years teaching experience for the six taxonomies of agriculture teachers ranged from 10.76 years to 15.89 years. Using one way analysis of variance and the Tukey post-hoc procedure, it was found that Agricultural Business teachers had significantly more years of teaching experience than Agricultural Mechanics teachers (Table 1).

The mean number of years teachers in the six taxonomies had been in their current positions ranged from 6.88 years to 10.64 years. No statistically significant differences were found among the six taxonomies of agriculture teachers in regard to the number of years teachers had been in their current positions.

Table 2 presents frequencies and percentages for the highest level of education attained by teachers in each of the six taxonomies. It was found that Natural Resources teachers tended to have Master's degrees, Production Agriculture teachers were most likely to hold Bachelor's degrees, and Agricultural Mechanics teachers were more likely to have only a high school diploma. A statistically significant moderate relationship (Cramer's V = .45) was found to exist between taxonomy and degree status (Table 2).

Table 2. Relationship Between Taxonomy and Degree Status for Agricultural Education Teachers (n=313).

Teachers	Degree status					
	High school diploma		Bachelor's		Master's	
	f	%	f	%	f	%
Agricultural Business	3	11.1	8	29.6	16	59.3
Agricultural Mechanics	32	64.0	13	26.0	5	10.0
FBPA	2	13.3	6	40.0	7	46.7
Horticulture	8	12.9	25	40.3	29	46.8
Natural Resources	0	0.0	6	40.0	9	60.0
Production Agriculture	2	1.4	82	56.9	60	41.7
All Cases	47	15.0	140	44.7	126	40.3

Cramer's V = .45

Chi-square (10 df) = 127.09 p<.05..

Table 3 presents the frequencies and percentages of teachers with and without tenure for each of the six taxonomies. It was found that Agricultural Business teachers were more likely to be tenured than teachers in other taxonomies while FBPA teachers were least likely to have tenure. A low association (Cramer's V - .18) was found to exist between taxonomy and tenure status.

Table 3. Relationship Between Taxonomy and Tenure Status for Agricultural Education Teachers (n=313).

Teachers	Tenure status			
	Yes		No	
	f	%	f	%
Agricultural Business	16	59.3	11	40.7
Agricultural Mechanics	20	40.0	30	60.0
FBPA	3	20.0	12	80.0
Horticulture	34	58.8	28	45.2
Natural Resources	7	46.7	8	53.3
Production Agriculture	60	41.7	84	58.3
All Cases	140	44.7	173	55.3

Cramer's V = .18.

In regards to overall job satisfaction, FBPA teachers had the highest mean score followed by teachers of Natural Resources (2.83), Production Agriculture (2.82), Horticulture (2.78), Agricultural Business (2.78), and Agricultural Mechanics (2.75) based on a five point scale where 1 = strongly disagree, 2= strongly disagree, 3 = undecided, 4 = agree, and 5 = strongly agree. Mean scores on the overall job satisfaction scale did not differ significantly across the six taxonomies of agriculture teachers (F = 1.45, Prob. = .206).

Teachers in the taxonomies of Agricultural Mechanics, FBPA, Horticulture, Natural Resources, and Production Agriculture on average indicated that advancement was the least satisfying of the job satisfier factors. Agricultural Business teachers, however, considered recognition to be the least satisfying factor. Teachers in the taxonomies of Agricultural Business, FBPA, and Horticulture perceived the work itself as being the most satisfying factor. Agricultural Mechanics and Production Agriculture teachers were most satisfied with responsibility, but Production Agriculture teachers were equally satisfied with recognition. (Table 4).

One way analysis of variance indicated that teachers in at least two of the six taxonomies differed significantly on two of the job satisfier factors (achievement and the work itself). The Tukey post-hoc procedure revealed that FBPA teachers provided significantly higher scores than Horticulture and Agricultural Mechanics teachers on achievement. Also, FBPA teachers provided significantly higher scores than Horticulture and Production Agriculture teachers on the work itself (Table 4).

Pearson correlations were calculated to describe the relationship between job satisfaction and age, years in current position, and total years in teaching. Point biserial correlations were calculated to describe the relationship between job satisfaction and tenure status, while dummy coding was utilized to assess the relationship between job satisfaction and degree status. The coefficients ranged in magnitude from negligible to moderate. Overall job satisfaction was not significantly related to any of the selected demographic variables (Table 5).

Table 5. Relationship Between Overall Job Satisfaction and Selected Demographic Variables of Agricultural Education Teachers (n=313).

Teachers	Job Satisfaction and Selected Demographic Variables				
	Age ^a	Current	Years in	Total	Tenure
		position ^a	teaching ^a	Degree status ^b	
Agricultural Business (n=24)	.05	.24	.02	.21	.01
Agricultural Mechanics (n=40)	-.19	-.22	-.23	.15	.19
FBPA (n=12)	-.08	.07	-.27	.38	-.36
Horticulture (n=50)	.16	-.11	-.05	.23	.11
Natural Resources (n=13)	.22	.36	.25	.18	-.12
Production Agriculture (n=99)	.15	-.03	-.04	.08	.01

^aPearson correlations

^bPoint biserial correlations

^cCoefficients obtained through dummy coding and multiple regression.

Pearson correlations were calculated to describe the relationships between agriculture teachers' overall level of job satisfaction and the job satisfier factors. The coefficients ranged in magnitude from negligible to substantial. The relationship between overall job satisfaction and the work itself was statistically significant for Agricultural Business teachers. Furthermore, the relationship between overall job satisfaction and recognition was significant for Natural Resources teachers (Table 6).

Conclusions and/or Recommendations

It was concluded that agriculture teachers in the six taxonomies were slightly to somewhat satisfied with each of the five job satisfier factors. However, teachers were undecided about their job satisfaction when all facets of their jobs were considered. It is recommended that agriculture teachers use the questionnaire utilized in this study to assess their own level of job satisfaction and compare their level of satisfaction to that of other teachers in their own taxonomy. Evaluations and comparisons of this sort will allow agriculture teachers to plan professional growth activities which are best suited to their needs.

Significant differences on the job satisfier factors were found among the six taxonomies of agricultural education teachers. It is recommended that further research be conducted to identify the specific qualitative factors that contribute to these significant

Table 4. Means, Standard Deviations, and F-Ratios for Job Satisfier Factors of Agricultural Education Teachers (n=313)

Teachers	Job Satisfier Factor									
	Achievement		Advancement		Recognition		Responsibility		The work itself	
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.
Agricultural Business	4.58	.74	4.19	1.01	4.17	1.11	4.53	.78	4.59	.71
Agricultural Mechanics	4.38	.81	4.14	.84	4.37	.94	4.65	.93	4.61	.97
FBPA	5.06	.38	4.70	.95	4.73	.94	5.19	.64	5.29	.83
Horticulture	4.30	.73	4.02	.92	4.21	1.06	4.60	.82	4.59	1.00
Natural Resources	4.44	.87	4.00	1.10	4.78	1.44	4.78	1.11	4.98	.88
Production Agriculture	4.53	.66	4.27	.82	4.71	.97	4.71	.80	4.58	.78
F-value	3.18		1.90		1.04		1.55		2.52	
Probability	.008 ^a		.094		.394		.173		.029 ^b	

^aFBPA teachers scored significantly greater than Horticulture teachers and Agricultural Mechanics teachers on achievement.

^bFBPA teachers scored significantly greater than Horticulture teachers and Production Agriculture teachers on the work itself.

Note. Based on scale: 1=very dissatisfied; 2=somewhat dissatisfied; 3=slightly dissatisfied; 4=slightly satisfied; 5=somewhat satisfied; 6=very satisfied.

Table 6. Relationship Between Overall Job Satisfaction and Job Satisfier Factors of Agricultural Education Teachers (n=313)

Teacher	Job satisfaction and job satisfier factors				
	Achievement	Advancement	Recognition	Responsibility	The work itself
Agricultural Business (n=24)	.26	.27	.08	.27	.40*
Agricultural Mechanics (n=40)	-.03	-.03	.04	-.14	-.16
FBPA (n=12)	.02	.40	.19	.22	.32
Horticulture (n=50)	.06	.04	.25	.18	.18
Natural Resources (n=13)	-.01	.05	-.62*	-.17	-.15
Production Agriculture (n=99)	.05	-.01	.02	.04	.07

*p<.05

differences. Identification of these factors could lead to development of programs aimed at helping teachers become more satisfied with specific facets of their jobs.

Of the thirty correlations calculated to describe the relationship between overall job satisfaction and the job satisfier factors, only one was consistent with the Motivator Hygiene theory proposed by Herzberg et. al. (1959). It was concluded that the job satisfier factors measured by Wood's (1973) instrument are not useful predictors of the overall job satisfaction of agricultural education teachers. Wood's instrument provides an excellent assessment of how satisfied teachers are with specific aspects of their jobs. An instrument such as the Brayfield-Rothe "Job Satisfaction Index", however, is recommended for measuring job satisfaction when all facets of the job are considered.

None of the correlations between overall job satisfaction and the selected demographic characteristics were significant. It was concluded that the demographic characteristics investigated in this study were not related to the overall job satisfaction of agriculture teachers in each of the six taxonomies.

Agricultural Mechanics teachers were significantly older than Horticulture teachers and Production Agriculture teachers, had significantly fewer years of teaching experience than Agricultural Business teachers, and were more likely to possess only a high school diploma. Agricultural Mechanics teachers had the lowest mean score on the overall job satisfaction scale and scored significantly lower on achievement than FBPA teachers. A possible explanation for these differences may be that many Agricultural Mechanics teachers were recruited from industry and did not receive traditional teacher training. Further research is needed to determine if the way in which agriculture teachers are recruited and trained contributes to their overall job satisfaction.

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