

Relationships Between Levels of Job Satisfaction Expressed by North Carolina Vocational Agriculture Teachers and Their Perceptions Toward the Agricultural Education Teaching Profession

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For a number of years, one of the concerns confronting vocational agriculture on the national level has been a shortage of qualified teachers. Mattox (1974) stated that effective programs of vocational agriculture are dependent upon an adequate supply of qualified teachers and that teacher educators for many years have been trying to solve the teacher shortage problem with little success. He also reported that a large percentage of prospective teachers, once trained, enter other professions or leave teaching after a short period of time.

According to Gruenberg (1976), there appeared to be a relationship between occupational change or turnover and job satisfaction. When vocational agriculture teachers leave the profession, some degree of job dissatisfaction is implied. One of the consequences of job turnover among teachers, as reported by Becker (1969), was the cost to society for the continual training of far more teachers than would appear to be required. Muncrief (1979) stated that since teacher education is a costly investment, if graduates do not remain in the profession, it would seem beneficial to take steps to increase the tenure of teachers who are both successful and satisfied with teaching.

Employee job satisfaction and factors such as productivity, performance, absenteeism, and job turnover have been investigated in several studies. Porter and Steers (1973), Baum and Youngblood (1975), and Bartol (1979) reported that there was a low, but consistently positive correlation between job dissatisfaction and several factors, one of which was job turnover. Carrell (1976) discussed several reasons for examining job satisfaction, including the determination of sources of, and the relationship between, satisfaction and dissatisfaction. He suggested that the relationships of satisfaction to training, absenteeism, and turnover were important.

In North Carolina during the years 1980 through 1985, 64% of the vocational agriculture teachers that left the profession did so for a change of occupations. There was a lack of precise information as to the existing degree of job satisfaction among the vocational agriculture teachers. Additionally, there was a lack of information concerning the various factors and/or variables that affected the job satisfaction of North Carolina vocational agriculture teachers and the corresponding relationships which existed between selected variables and vocational agriculture teacher job satisfaction. In view of the importance of qualified teachers as a prerequisite for the success of vocational agriculture programs and the apparent relationship between job dissatisfaction and teacher turnover, there appeared to be a need for investigating the factors which contribute to vocational agriculture teacher job satisfaction in North Carolina. It was anticipated that findings of this study would provide information concerning job satisfaction for vocational agriculture teachers in North Carolina and would prove helpful to the state leadership of agricultural education in planning occupational enrichment activities for vocational agriculture teachers.

Problem

The problem addressed was to determine the level of job satisfaction of the vocational agriculture teachers in North Carolina and to determine whether a relationship existed between their level of job satisfaction and their perceptions toward various portions of the teaching profession. Specifically, the study answered the following research questions:

1. What are the intrinsic, extrinsic, and general job satisfaction levels of North Carolina vocational agriculture teachers?
2. Is there a relationship between the general job satisfaction level of North Carolina vocational agriculture teachers, as measured by the Minnesota Satisfaction Questionnaire, and their perceptions toward their working environment?

3. Is there a relationship between the general job satisfaction level of North Carolina vocational agriculture teachers, as measured by the Minnesota Satisfaction Questionnaire, and their perceptions toward the financial support they receive?
4. Is there a relationship between the general job satisfaction level of North Carolina vocational agriculture teachers, as measured by the Minnesota Satisfaction Questionnaire, and the perceptions toward the degree of professional acceptance they receive?

Methodology

The study was conducted as a descriptive study which incorporated aspects of correlational research methodology. The population consisted of the vocational agriculture teachers employed in North Carolina during the 1985-1986 school year ($N = 375$) as identified in the 1985-1986 North Carolina Vocational Agriculture Teacher Directory. This information was verified for accuracy by the Chief Consultant for Vocational Agriculture Education in North Carolina. The 1985-1986 North Carolina Vocational Agriculture Teacher Directory served as the frame for the population.

The Minnesota Satisfaction Questionnaire (short form) was selected, based on recommendations reported by Vroom (1964) and Robinson, Athanasiou, and Head (1969) as Part I of the research questionnaire used for data collection because it facilitated the determination of a general job satisfaction score, an intrinsic job satisfaction score, and an extrinsic job satisfaction score. The Minnesota Satisfaction Questionnaire was developed by Weiss, Dawis, England and Lofquist (1967) and represented the result of research conducted on the Work Adjustment Project in studies conducted at the University of Minnesota. The theory underlying the basis for the Work Adjustment Project stated that "...work adjustment depends on how well an individual's abilities correspond to the reinforcers available in the work environment" (Weiss et al. 1967, p. v).

The Minnesota Satisfaction Questionnaire (short-form) included 20 items. Each item represented either an intrinsic facet or an extrinsic facet of the job situation. Each item presented the respondent with five response alternatives which ranged from not satisfied to extremely satisfied. The general satisfaction scale involved the use of all 20 items with a potential scores ranging from 20 to 100. The intrinsic scale involved 12 items with potential scores from 12 to 60. The extrinsic scale involved 6 items with potential score ranges from 6 to 30.

In scoring the Minnesota Satisfaction Questionnaire for general job satisfaction, when percentile scores were used, Weiss et al. (1967) reported that a score of 50 or better indicated satisfaction. A percentile score of 75 or higher indicated a high degree of satisfaction, and a percentile score of 25 represented a low level of satisfaction. It was reported that percentile scores which ranged from 26 to 74 indicated average satisfaction. For teachers, Weiss, et al. (1967) reported Hoyt reliability coefficients for individual items ranging from .74 to .91, with a general satisfaction Hoyt reliability coefficient of .87. For the intrinsic satisfaction scale, internal consistency coefficients ranged from .77 to .82; and for the items on the extrinsic satisfaction scale, coefficients ranged from .84 to .91. The authors also reported that the median Hoyt reliability coefficients were .86 for intrinsic satisfaction, .80 for extrinsic satisfaction, and .90 for general satisfaction. These internal consistency coefficients suggested that the instrument had good reliability. Regarding the stability of the instrument, the authors reported a test-retest correlation of general satisfaction scale scores which yielded coefficients of .89 over a one-week period and .70 for a one-year interval.

Part II of the questionnaire consisted of situational items utilizing a five point, Likert type scale, patterned after the Minnesota Satisfaction Questionnaire (short form). Part II of the instrument was used to gather data which concerned teacher perceptions of 18 factors related to job satisfaction which were identified in the literature. Part II of the instrument was field test using 10 randomly selected teachers who were not selected for the research sample. A Cronbach Alpha coefficient of .88 was calculated for this part of the instrument. Part III of the questionnaire used in the study, consisted of a personal questionnaire. Responses to eight items enabled the gathering of demographic information related to the sample.

Prior to the actual field test of the questionnaire, Parts II and III of the questionnaire were examined and critiqued by a panel of experts to determine the readability and suitability of the questionnaire and to establish content validity of the instrument. The suggestions obtained from the panel were incorporated into the final questionnaire design and wording.

A survey packet was mailed to each teacher in the research sample. The packet included a cover letter which explained the purpose of the study, provided assurance of anonymity, and requested the teacher's participation; the questionnaire to be completed; and a stamped, return addressed envelope. The teachers were requested to complete and return the questionnaire within three weeks. At the end of the three week period, 220 questionnaires had been received which constituted a 68.75% response rate. At the end of three week period, a second mailing was sent to individuals who had not responded to the initial mailing. As a result of the second mailing, 40 additional questionnaires were received which constituted a 40% response rate for the second mailing.

Miller and Smith (1983) reported that late respondents were often similar to nonrespondents and if no statistical differences were found, then it is permissible to generalize the findings to describe the sample. In order to determine if there were any differences between the early and late respondent groups for the variables in the study, t-tests were computed for the two respondent groups for the intrinsic, extrinsic and general job satisfaction scores. At the .05 level, there were no significant differences for general job satisfaction, intrinsic, or extrinsic scores for the two groups. Since there were no differences between the early and late respondents in the study, the data were assumed to be representative of the sample and they were combined for analysis. The total number of returned, usable questionnaires totaled 260, or 81.25% of the 320 teachers in the sample.

Analysis of data in this study utilized descriptive statistics, which included measures of central tendency, frequency distributions, percentages, and measures of variance (standard deviations). Pearson product-moment correlations were used to determine relationships between the independent variables and the dependent variable. An alpha level of .01 was established a priori. The dependent variable in the study was the job satisfaction of North Carolina vocational agriculture teachers who were employed during the 1985-86 school year. The independent variables examined in the study were the vocational agriculture teachers' perceptions of their: (a) working environment, (b) financial support, and (c) professional acceptance.

Because statistical significance for correlation coefficients do not always imply practical significance, analysis of the data also involved the use of practical descriptors for the interpretation of correlation coefficients. Hinkle et al. (1979) reported that the only commonly used set of descriptors for the interpretation of correlation coefficients was as follows: (a) .90 to 1.00 equals a very high correlation; (b) .70 to .90 equals a high correlation; (c) .50 to .70 equals a moderate correlation; (d) .30 to .50 equals a low correlation; and (e) .00 to .30 equals little if any correlation.

Results

For the purpose of describing the population, the vocational agriculture teachers responded to eight demographic items on the questionnaire. The average number of years of teaching experience for the teachers in the sample was 13.64 ($SD = 9.4$). Female vocational agriculture teachers made up 6.5% of the sample, while 93.5% of the teachers were male. The racial composition of the vocational agriculture teachers was 13.5% non-white and 86.5% white. Of the respondents, 81.1% were enrolled in vocational agriculture while in high school whereas 18.9% were not. Among the respondents, 81.9% reported that the majority of their vocational agriculture students came from rural backgrounds. The respondents reported that their school student enrollments ranged from a low of 125 students to a high of 2,500 students.

Job Satisfaction Levels: The initial research question involved the determination of the intrinsic, extrinsic, and general job satisfaction levels of North Carolina vocational agriculture teachers. The general job satisfaction scores for the vocational agriculture teachers in the sample ranged from 38 to 97. The general job satisfaction mean score was 75.86 ($SD = 9.78$), based on the raw data for the study sample. For comparative purposes, this mean score approximated the 45th percentile for the "Employed Non-Disabled" group in the Minnesota Satisfaction Questionnaire manual and represented a moderate level of satisfaction. For respondents, the minimum intrinsic job satisfaction score was 18 and the maximum intrinsic score was 60. The mean intrinsic score for these teachers was 49.08 with a standard deviation of 5.53 which represented an average level of satisfaction. For respondents, the minimum extrinsic job satisfaction score was 7 and the maximum extrinsic score was 30. The mean extrinsic score was 19.23 ($SD = 4.31$) and represented an average level of satisfaction.

Table 1 presents the mean satisfaction scores for the factors as expressed by the North Carolina vocational agriculture teachers. The four factors examined under the independent variable, professional acceptance, had the highest levels of satisfaction by the North Carolina vocational agriculture teachers. With the exceptions of having to perform noninstructional duties and academic

ability of enrolled students, financially related factors had the lowest mean scores of the factors examined in the study.

Table 1
Satisfaction Levels of Research Factors as Expressed by North Carolina Vocational Agriculture Teachers and Correlation Values with Minnesota Satisfaction Questionnaire Scores

Independent variable/factor	Perceived satisfaction level		
	<u>M^a</u>	<u>SD</u>	<u>r^b</u>
Working environment:			
Type of department (single vs. multiple teachers)	3.96	0.79	.44
Level of community support	3.71	0.86	.48
Number of different class prep. required daily	3.66	0.94	.35
Administrative support	3.65	1.09	.64
Adequacy of vocational agriculture facilities	3.45	1.16	.39
Discipline of enrolled students	3.31	1.07	.43
Long hours and evening responsibilities	3.26	.94	.43
Noninstructional duties	2.76	1.23	.44
Academic ability of enrolled students	2.69	1.03	.43
Financial support:			
For instructional materials	3.00	1.06	.35
For consumable instructional materials	2.94	1.16	.28
For travel reimbursement	2.92	1.22	.22
Salary	2.89	1.13	.46
Salary supplement	2.34	1.19	.27
Professional acceptance:			
By other vo - ag teachers	4.06	0.59	.31
By members of NC Voc. Agr. Teachers Assoc.	4.05	0.63	.31
By school faculty	3.99	0.66	.44
By school principal	3.89	0.86	.63

Note. Means established with a scale where 1 = very dissatisfied, 2 = dissatisfied, 3 = undecided, 4 = satisfied, 5 = very satisfied. $p < .01$. ^aN = 260. ^bPearson product-moment correlations calculated between general satisfaction scores as determined by the Minnesota Satisfaction Questionnaire and perceived levels of satisfaction expressed by teachers for the factors supporting the independent variables.

Job satisfaction scores below 2.75 were interpreted as representing dissatisfaction among the vocational agriculture teachers. Items with mean scores above 3.25 were interpreted as representing satisfaction for those items. Scores between 2.75 and 3.25 indicated neither satisfaction nor dissatisfaction.

North Carolina vocational agriculture teachers appeared to be satisfied with the following 11 factors: (a) professional acceptance by other vocational agriculture teachers in the State, (b) professional acceptance by members of the North Carolina Vocational Agriculture Teachers Association, (c) professional acceptance by school faculty, (d) type of teaching department, (e) professional acceptance by school principal (f) community support, (g) number of different class preparations required daily, (h) administrative support by the principal, (i) vocational agriculture facilities, (j) discipline of the enrolled students, and (k) having to work long hours and having evening responsibilities. The mean scores shown in Table 1 indicated that North Carolina vocational agriculture teachers were neither satisfied nor dissatisfied with the following factors: (a) adequacy of financial support for instructional materials, (b) adequacy of financial support for consumable instructional materials, (c) adequacy of financial support for travel reimbursement for the teacher, (d) salary, and (e) having to perform noninstructional duties. North Carolina vocational agriculture teachers appeared to be dissatisfied with (a) academic ability of the enrolled students, and (b) adequacy of financial support for local salary supplement for the teacher.

The relationship between overall job satisfaction and the teachers' perception of their working environment was examined using nine factors related to the working environment of teachers identified in the literature (See Table 1). Statistically significant relationships ($p < .01$) were found

to exist between the overall job satisfaction level, as measured by the Minnesota Satisfaction Questionnaire, of the vocational agricultural teachers and their perceived level of satisfaction toward their working environment. An interpretation of the correlation coefficients using the Hinkle and Oliver conventions indicated that for eight of the factors in this category, only a low correlation existed. Only one of the nine factors examined, administrative support, exhibited a moderate correlation.

The relationship between the overall job satisfaction level of North Carolina vocational agriculture teachers, as measured by the Minnesota Satisfaction Questionnaire, and the perceptions of the teachers toward all five factors were found to have positive significant relationships ($p < .01$) with the levels of overall job satisfaction determined by the Minnesota Satisfaction Questionnaire. However, the practical significance of the relationships indicated that little, if any, correlation existed between the level of overall job satisfaction and the teachers' perceived level of satisfaction with the following three factors: (a) financial support for consumable instructional materials, (b) financial support for travel reimbursement, and (c) salary supplement. The teachers' perceived levels of satisfaction with the remaining two factors, financial support for instructional materials and salary were found to be have a low correlation with the job satisfaction scores.

The relationship between the overall job satisfaction level of North Carolina vocational agriculture teachers, as measured by the Minnesota Satisfaction Questionnaire, and their perceptions toward the professional acceptance they received was determined by examining four factors related to professional acceptance (See Table 1). The relationships between the teachers' perceptions of their level of satisfaction with these factors and their Minnesota Satisfaction Questionnaire scores were statistically significant ($p < .01$). However, practical interpretation of the data in Table 1 indicated that only a low correlation existed between the level of overall job satisfaction and the teachers' perceived levels of satisfaction with professional acceptance (a) by other vocational agriculture teachers, (b) by members of the professional organization North Carolina Vocational Agriculture Teachers Association, and (c) by the school faculty. A moderate correlation was found between the teachers' perceived level of satisfaction with professional acceptance by the school principal and their overall job satisfaction.

Conclusions and Recommendations

Vocational agriculture teachers in North Carolina have a moderate level of general job satisfaction, and average levels of intrinsic and extrinsic job satisfaction. However, it appeared that North Carolina vocational agriculture teachers were characterized as having higher intrinsic job satisfaction as opposed to extrinsic job satisfaction. Since only average to moderate levels of job satisfaction were determined, efforts need to be made to provide inservice training activities to increase the various levels of job satisfaction of North Carolina vocational agriculture teachers.

North Carolina vocational agriculture teachers are satisfied with a majority of the factors which comprise their working environment. However, since lower levels of satisfaction were reported for the factors involving noninstructional duties and the academic ability of students enrolled in vocational agriculture, attention should be focused in these areas. This might best be done by attempting to provide both preservice and inservice programs for vocational agriculture teachers to help them work better with the less academic and problem students, and by encouraging school administrators to reduce the quantity of noninstructional assignments and activities which require evening hours for the vocational agriculture teachers.

North Carolina vocational agriculture teachers tend to be more dissatisfied with the financial support they receive than with their working environment and professional acceptance. In order to improve the perceptions vocational agriculture teachers have toward the financial support they receive, effort should be made to increase both local and state dollars for instructional material, consumable instructional materials, travel reimbursements, and local salary supplements. Efforts should also continue to encourage the state legislature to take steps to raise salaries for teachers in the state.

Basically, vocational agriculture teachers in North Carolina are satisfied with the level of professional acceptance they receive from other vocational agriculture teachers, members of the North Carolina Vocational Agriculture Teachers Association, other school faculty members, and their principals. However, since there appears to be a moderate practical relationship between the level of job satisfaction of vocational agriculture teachers and their relationships with their principals, efforts should be made on the part of vocational agriculture teachers to improve the rapport with and support of their local principals.

References

- Bartol, K.M. (1979). Individual versus organizational predictors of job satisfaction and turnover among professionals. Journal of Vocational Behavior, 15, 55-76.
- Baum, J.F., & Youngblood, A.A. (1975). Impact of organizational control policy on absenteeism, performance, and satisfaction. Journal of Applied Psychology, 60, 688-694.
- Becker, G. (1969). Human capital. New York: Columbia University.
- Carrell, M. (1976). How to measure job satisfaction. Training, 13, 25-27.
- Hinkle, D.E., & Oliver, J.D. (1985). Determining the sample size: A recurring problem in agricultural education research. Educational and Psychological Measurement, 45, 99-105.
- Hinkle, D.E., Oliver, J.D., & Hinkle, C.A. (1985). How large should the sample be? Part II - The one-sample case for survey research. Educational and Psychological Measurement, 45, 271-280.
- Mattox, K.E. (1974). Why teachers quit. The Agricultural Education Magazine, 47 (6), 140-142.
- Miller, L.E., & Smith, K.L. (1983). Handling nonresponse issues. Journal of Extension, 45-50.
- Muncrief, M. (1979). Work adjustment of vocational education teachers. The Journal of Vocational Education Research, 4, 35-48.
- North Carolina Vocational Agriculture Directory. (1985). Raleigh, North Carolina. Department of Public Instruction, Division of Vocational Education, Agricultural Education Section.
- Porter, L.W., & Steers, R.M. (1973). Organizational, work, and personal factors in employee turnover and absenteeism. Psychological Bulletin, 80, 151-176.
- Robinson, J.P., Athanasiou, R., & Head, K.B. (1969). Measures of occupational attitudes and occupational characteristics. Ann Arbor: Survey Research Center, Institute for Social Research.
- Vroom, V.H. (1964). Work and motivation. New York: McGraw-Hill.
- Weiss, D.J., Dawis, R.V., England, G.W., & Lofquist, L.H. (1967). Manual for the Minnesota Satisfaction Questionnaire. Industrial Relations Center, University of Minnesota.