

**CORRELATION OF SELECTED VARIABLES
WITH THE MORALE OF
VIRGINIA TEACHERS OF AGRICULTURAL EDUCATION**

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Morale is a factor that has been identified by other researchers as contributing to the success of the teacher (Bentley and Rempel, 1970). Industrial researchers have found high correlations between worker morale and job longevity. If these two tested hypotheses can be integrated, then the morale of teachers may have an affect upon how long they remain in teaching. Morale can become a concern during a period of teacher shortage as professionals step-up recruitment and retention efforts. The identification of the level of the morale of the teacher might allow the prediction of teacher longevity, or allow one to identify features with low morale and initiate remedial measures.

Miller (1974) noted, after studying the morale of first-year teachers in Virginia, that the respondents were tending to score below the norms for both representative junior and senior high school teachers and all teachers on the Purdue Teacher Opinionaire (PTO). He wrote further that since these characteristics were exhibited by first-year teachers further research should be conducted to determine if this condition existed with other, more experienced, teachers of Agricultural Education; and that further research be conducted to determine what factors inherent in the job might affect morale (Miller, 1975). These unanswered questions led the researcher to develop the research question that provided the basis for this study (Miller, 1975).

Research Question

What relationships exist between selected demographic variables and the morale of Virginia teachers of Agricultural Education?

Methodology

The following describes the procedures used in the conduct of this study.

Design. This study was descriptive research of the survey type. Because of this, the reader is cautioned to be aware of the "slice-of-time" and other limitations of survey research. Being survey research; no treatment, per se, was administered.

Population and Sample. The population for this study was comprised of all teachers of Agricultural Education in Virginia. Three groups comprised the samples studied, and they were:

1. First-year teachers enrolled in a graduate course designed for them. Eighteen teachers comprised the invited sample and the data sample was made up of fifteen (N = 15) respondents.
2. First-year teachers who were not enrolled in the aforementioned course. Thirty-five teachers comprised the invited sample and the data sample was twenty-four (N = 24).
3. A random sample of experienced teachers by State Department of Education supervisory area. Experienced teachers were those not included in either of the previous groups. Data were gathered from twenty-six (N = 26) of the thirty invited to complete the questionnaires.

Instrumentations. The Purdue Teacher Opinionaire (PTO) was used to assess teacher morale. The PTO is a self-report instrument of one hundred items and yields ten factor scores and a total score. Reliability of the instrument, using Kuder-Richardson internal consistency coefficients, has been established to range from .79 to .98 with an overall coefficient of .96. Test-retest correlations are .87 for the total score. Validity of the PTO is primarily in terms of face validity and its wide acceptance by the educational community. It has been found to discriminate sharply among different schools, and among individual teachers in a particular school by Bentley and Rempel (1970:8).

A researcher developed questionnaire was used to accumulate the necessary demographic data.

The ten factor scores on the PTO are:

1. Teacher rapport with principal
2. Satisfaction with teaching
3. Rapport among teachers
4. Teacher salary
5. Teacher load

6. Curriculum issues
7. Teacher status
8. Community support of education
9. School facilities and services
10. Community pressures

A Total Score on the PTO is also obtained.

The demographic data collected included:

1. Class size
2. Number of class periods taught per day
3. Type of teaching certificate held
4. Total years of teaching experience
5. Total years of Agricultural Education teaching experience
6. Adult education supplement pay
7. Length of contract
8. FFA Chapter responsibilities
9. Young Farmer Chapter responsibilities
10. Completion of student teaching
11. Community cannery responsibilities
12. Supervision of adult lay instructors
13. Student home visitation
14. Hours reported worked per week

Conditions of Testing. The conditions under which the data were gathered varied by group. For the first-year teachers enrolled in the graduate course, data were gathered during class time. The other two groups were surveyed by mail and completed the instruments in a place and time of their own choosing.

Data Analysis. Data were first analyzed by calculating the mean and standard deviation for each group on the PTO. Further analysis of the PTO was made using analysis of variance for within and between group comparisons. Means and frequency counts were used to summarize the demographic data.

A correlational matrix was then generated between the quantified demographic factors and the factors of the PTO. Significant correlations, using the alpha level of .01, were then calculated.

Results

This study addressed the question, "What relationships exist between selected demographic variables and the morale of Virginia teachers of Agricultural Education?"

Table 1

MEANS AND STANDARD DEVIATIONS ON THE PTO

Group	N	Mean	SD
First-year teachers in the graduate course	15	297.93	42.99
First-year teachers not in the graduate course	24	303.75	32.97
Experienced teachers	26	286.77	35.92

The data, by virtue of mean score difference and standard deviation, seem to indicate that the course had some effect on the teachers who were enrolled in the graduate course. A test of significance was then made.

Table 2

ANALYSIS OF VARIANCE BY GROUPS ON PTO

	SS	DF	MS	F
Between groups	3704.43	2	1851.71	1.38
Within groups	8311.94	62	1340.51	

The analysis of variance by groups on the PTO revealed no significant difference at the .01 level between the scores obtained by the three groups on the PTO.

Data pertaining to the correlation of the selected variables with the PTO factor are represented in Table 3. Only one significant ($p > .01$) correlation was found, -0.378 , which was between average class size and teacher salary.

Summary

The major purpose of this study was to determine what relationships exist between selected demographic variables and the morale of Virginia teachers of Agricultural Education. The data collected led to the conclusion that, with one exception, no statistically significant correlation existed.

The one exception was between average class size and teacher salary, with a correlation of -0.378 . Using a rule-of-thumb, this correlation would be said to be moderate, at best. It is negative in slope. This would tend to indicate, with moderation, that teachers with larger classes are more concerned about salary matters. This may reflect the possibility that the newer teachers, usually the ones paid the least, get the larger classes.

These findings would indicate, as expected, that the demographic variables do not vary with the factors of the PTO and that one cannot be predicted by knowing the other.

While the analysis shows no significant differences between the groups of teachers studied, a comparison of the PTO findings with norm group data and other studies proves interesting. This study, in part, replicates the study by Miller (1974) that also supplied PTO data on first-year teachers.

Figure 1 illustrates the first-year teachers, a composite of both studies, and the experienced teachers as compared with representative junior and senior high school teachers across all disciplines.

Figure 2 illustrates the relative position of the two Agricultural Education groups as compared with the tenth and fiftieth percentiles of the total norm group of all teachers who have taken the PTO.

In studying Figures 1 and 2, in terms of the factors of the PTO, one finds that several facts are noteworthy.

Table 3

CORRELATION MATRIX
(Sample Size of 65)

Demographic Variables (Refer to previous list for description, page)														
PTO Factors	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	-0.190	-0.148	-0.146	0.028	0.031	-0.108	-0.046	0.025	0.188	0.103	0.084	0.005	-0.143	-0.047
2	-0.080	-0.074	0.062	0.090	0.083	-0.234	0.100	-0.028	-0.198	-0.213	-0.003	0.030	-0.230	0.266
3	-0.081	0.079	-0.116	-0.098	-0.076	-0.051	-0.100	0.062	0.181	0.193	0.184	0.012	-0.067	-0.141
4	-0.378*	-0.168	-0.188	-0.109	-0.133	-0.116	-0.095	0.024	0.050	0.195	0.177	-0.012	-0.116	0.001
5	-0.207	0.173	-0.307	-0.187	-0.237	0.164	-0.144	0.082	0.121	0.158	0.204	-0.035	-0.029	-0.143
6	-0.148	-0.219	-0.098	-0.244	-0.172	-0.157	-0.123	-0.039	0.317	0.125	0.176	-0.056	-0.071	-0.232
7	-0.315	-0.241	-0.103	-0.243	-0.206	-0.147	-0.035	-0.004	-0.027	0.112	0.085	-0.012	0.002	0.028
8	-0.104	-0.066	-0.070	-0.158	-0.081	0.013	0.215	-0.161	0.062	0.243	-0.124	-0.101	-0.308	-0.105
9	0.033	0.021	-0.277	-0.155	-0.115	0.059	0.024	0.021	0.076	0.127	0.047	-0.127	0.027	0.052
10	-0.009	0.114	-0.049	0.019	-0.009	0.157	0.179	0.110	0.108	0.134	0.057	0.133	-0.026	0.088
11**	-0.240	-0.046	-0.180	-0.104	-0.091	-0.086	-0.026	0.018	0.116	0.131	0.137	-0.014	-0.172	-0.011

$r \geq 0.32$ needed for $p \leq 0.01$

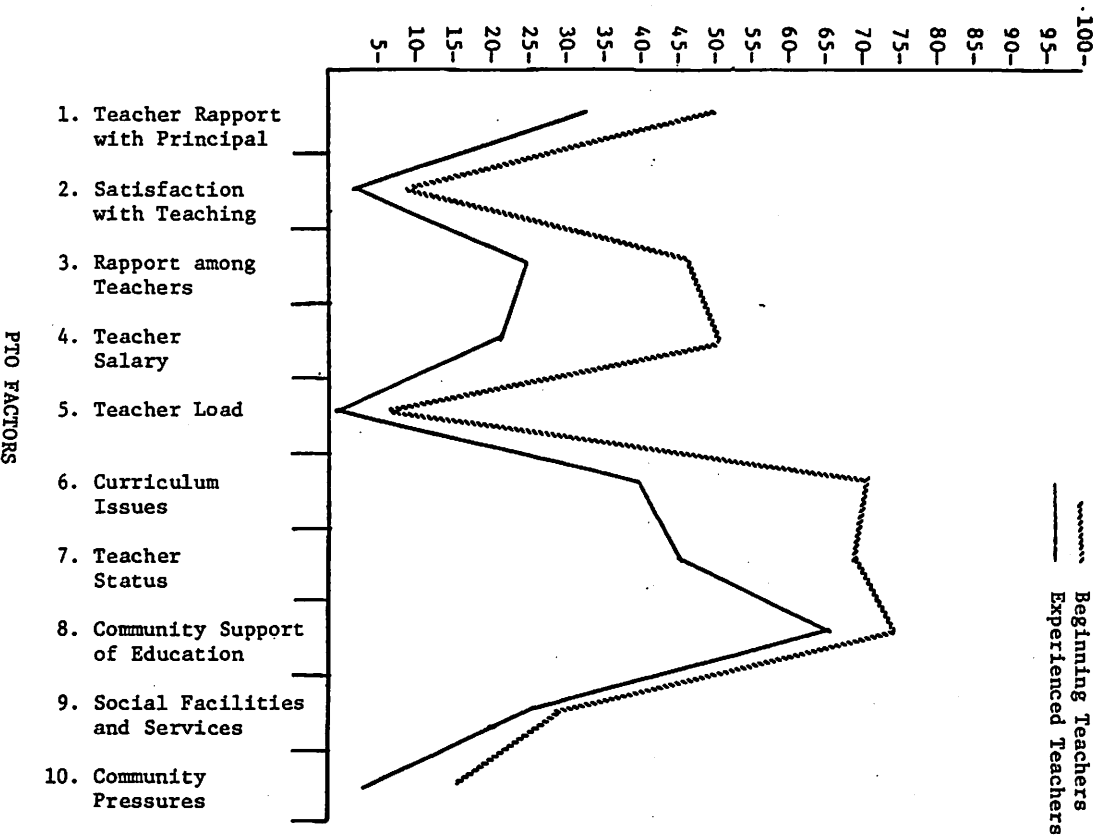
(Using Rohlf, F. James and Sohal, Robert *Statistical Tables* as source)

*Significant at .01 level

**PTO Total

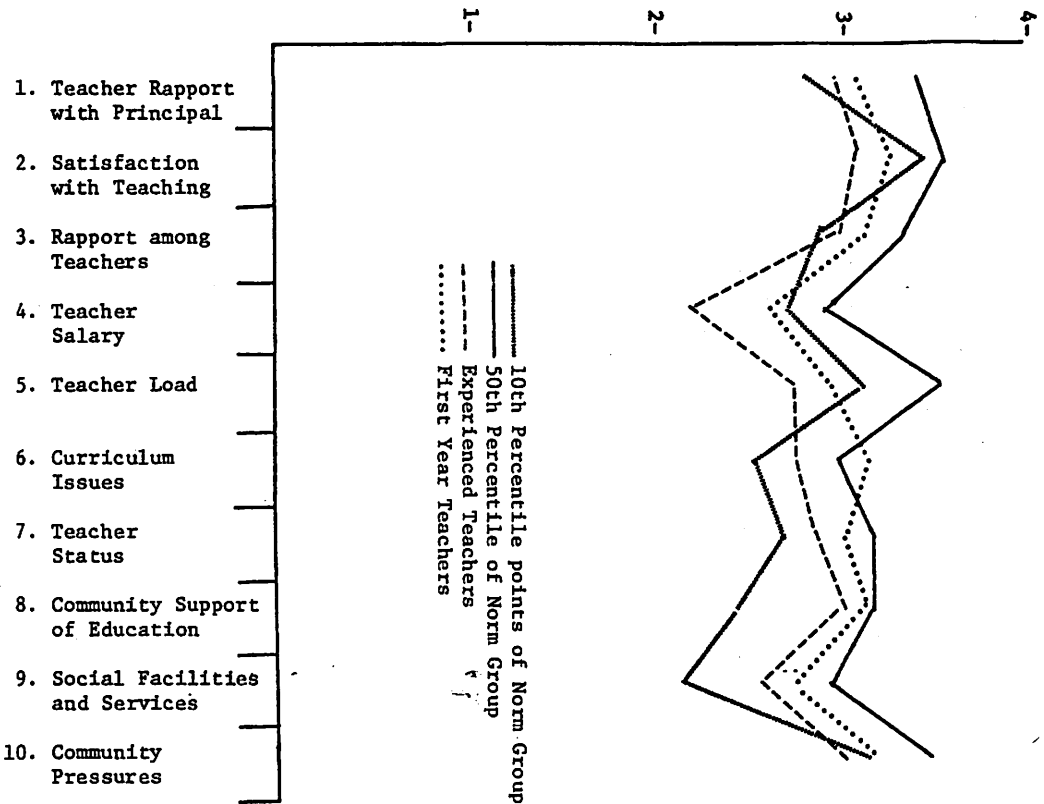
FIRST YEAR AND EXPERIENCED VIRGINIA
 AGRICULTURAL EDUCATION TEACHERS' MORALE COMPARED
 WITH REPRESENTATIVE JUNIOR AND SENIOR HIGH SCHOOL TEACHERS

Figure 1



FIRST YEAR AND EXPERIENCED VIRGINIA
 AGRICULTURAL EDUCATION TEACHERS' MORALE COMPARED
 WITH TENTH AND FIFTEETH PERCENTILES OF PTO NORM GROUP

Figure 2



PTO FACTORS

Table 4
 MEAN PTO FACTOR SCORE BY LEVEL OF EXPERIENCE
 AND YEAR OF STUDY

Factors	1974	1975	
	First-year Teachers	First-year Teachers	Experienced Teachers
Rapport with principal	3.43	3.2	3.01
Satisfaction with teaching	3.36	3.3	3.25
Rapport among teachers	3.34	3.2	3.06
Teacher salary	2.61	2.7	3.06
Teacher load	2.73	3.0	2.68
Curriculum issues	2.75	3.1	2.82
Teacher status	3.10	3.0	2.88
Community support	3.08	3.1	2.82
School facilities	2.49	2.6	2.57
Community pressures	3.42	3.2	3.06

Perusal of these results indicate some congruence between the groups and studies.

In Figure 1, if the percentile factor is 35, then this would indicate that 65 percent of the representative junior and senior high school respondents rated that factor higher. Note that beginning teachers rated all factors higher than did experienced teachers. Figure 2 shows how the Virginia Agricultural Education teachers compared with the norm group of all teachers irregardless of type of school. Only the tenth and fiftieth percentiles are shown, since the Agricultural Education teachers in Virginia tended to be in that proximity.

Teacher rapport with the principal showed the experienced teachers' ratings to be at the thirty-fifth percentile when compared to representative junior and senior high school teachers (Fig. 1) and between the tenth and fiftieth percentile of all norm group teachers (Fig. 2). The remainder of the factors may be read and interpreted from the figures in a similar manner.

In summarizing Figure 1, it is found that beginning Virginia teachers of Agricultural Education were above the fiftieth percentile, as compared with representative junior and senior high school teachers, on the factors of teacher rapport with principal, rapport among teachers, curriculum issues, teacher status, and community support of education.

Experienced teachers, Figure 1, were above the fiftieth percentile on only the community support of education factor.

In summarizing Figure 2, it was found that curriculum issues was the only factor that placed any group of Agricultural Education teachers above the fiftieth percentile, and that was for beginning teachers. All Virginia teachers of Agricultural Education sampled were below the tenth percentile on factor two, satisfaction with teaching; factor four, teacher salary; and factor five, teacher load. Experienced teachers were below the tenth percentile on factor ten, community pressures.

This study poses some questions that should be studied as revealed by data gathered to address the original research question. When Virginia teachers are compared with the norm groups, why do they rate so low? Are teachers of Agricultural Education in Virginia similar in morale to other teachers in other states? Are the teachers of Agricultural Education in Virginia typical of other Vocational Education teachers? All of these questions should receive further attention as ways of recruiting and retaining teachers are studied.

References Cited

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