

Improving Agent Selection

The continuing agent, more than the agent who quits, is like an administrator with a touch of social service and salesmanship

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Agent selection for Extension has rested primarily on the judgment of supervisors. Turnover has been considerable. Extension administrators have searched for ways to more accurately identify applicants who can be expected to continue their employment for reasonable periods of service; employing and training new personnel is costly. Standard psychological tests have been administered to Indiana personnel in a search for ways to predict potential performance on the job (see E. R. Ryden, "Predicting Successful Performance," Journal of Cooperative Extension, Summer, 1965, pp. 103-109). The Strong Vocational Interest Blank was used to see if Extension personnel have unique interest patterns. This article reports the results of a study to determine the potentiality of this interest test as a means of predicting whether a person will continue in the Service or quit after a short period of employment.

EVERY profession has problems in selecting personnel. Large amounts of time and money are invested in the training of new people. It is the responsibility of Extension Service supervisors to select carefully among applicants to secure properly qualified persons for the adult education field. Guesswork has no place in good selection procedures. Psychological tests, if properly used, can be of considerable value as an aid in the process of selection. These tests are no substitute for a supervisor's judgment in the personal interview, but they can help him achieve a higher "batting average" in selecting qualified personnel.

It has been shown that persons successfully employed in a given

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profession tend to have similar interests. These interests form a pattern that is characteristic of that profession. It has also been found that a person entering a profession is likely to be effective and happy if his own interest pattern is similar to that of persons already employed in the profession. There is a great deal of truth in the old saying that "birds of a feather flock together." A wise career choice enables a person to experience a sense of worth and personal satisfaction.

THE STUDY

Table 1 summarizes the personnel situation of assistant county agricultural agents in Indiana during a 16-year period.

In 1961 Director L. E. Hoffman of the Indiana Extension Service initiated research in which several psychological tests were used on groups of employed county and assistant county agricultural agents.¹ The aim of this research was to find out whether test scores had any value in predicting performance on the job. Later the scope of the research was broadened to include a well-known interest test, the Strong Vocational Interest Blank.² Analysis of the interest scores led us to believe that Extension workers, like other professionals, showed a unique pattern of interests. When the scores of agents were compared with those of agricultural students, a number of differences showed up. It appeared to us that having an education in agriculture would not necessarily ensure a person's success in Extension.

From the facts already established, we asked: Do the interests of the person who stays in Extension work differ from those of the person who leaves after a comparatively short time? So we designed a study to provide an answer.

Table 1. Proportion of assistant county agricultural agents employed by the Indiana Extension Service who quit the Service, 1945-1961.

Period	Number hired	Number leaving	Per cent leaving
1945-50	135	85	63
1951-55	98	56	57
1956-61	93	29	31
Totals:*	326	170	

* Of the 326 agents hired 1945-61, 170 left (52 per cent) and 156 stayed (48 per cent).

¹ P. E. Moon, "The Development of a Battery of Tests for the Selection of Agricultural Extension Personnel" (unpublished Master's thesis, Purdue University, Lafayette, Indiana, 1962).

² C. A. Gosney, "Vocational Interest Patterns of Indiana County Agricultural Agents" (unpublished Master's thesis, Purdue University, Lafayette, Indiana, 1963).

A copy of the Strong test and a letter explaining the purpose of the research were sent to each of 94 former agents. Fifty-five completed tests were returned. From this group we randomly selected 30 for the first phase of our analysis. We already had the test results of 67 county agents with a minimum of 10 years of service. We randomly chose 50 tests from this group of continuing agents for the first phase of analysis.

RESULTS

The average for each of these two groups (continuing agents and "quitters") was calculated on each of the 45 Strong scales. Comparing these averages, we found differences on six occupational scales. Continuing agents scored higher than "quits" on these scales: YMCA Secretary, City School Superintendent, Public Administrator, and Life Insurance Salesman. "Quits" were higher on the Musician scale; agents were only slightly higher on the Farmer scale.

Statistical methods are available which can be usefully applied to the problem of discriminating between different groups and classifying them. The statistic for the solution to our problem is known as the *discriminant function*.³ We carried out such a statistical analysis as a means of determining test-score results that might distinguish between agents who continue and those who quit. Assuming that we did determine such a score we should be able to predict from the test score of any particular person whether or not he was a continuing agent or a "quitter." We had test scores on the 42 persons that had not been included in the first phase of our analysis. Seventeen of these scores were for continuing agents and 25 were for "quitters." If in the first phase of our analysis we had really determined a test score that would distinguish between a person who would continue as an agent and one who would quit, we should be able to identify, by using only the test scores for the 42, the 17 agents who did continue and the 25 who quit.

The results of our success in predicting which of the 42 were continuing agents and which were "quitters" are shown in Table 2. We were able to identify correctly 13 of the 17 continuing agents (we predicted from their test scores that 13 would continue in Extension) and 18 of the 25 "quits" or former agents (we predicted from test scores that 18 would quit). Our analysis led us to predict that 20 of the 42 would continue and 22 would quit. (Actually 17 continued and 25 quit.)

³ For an explanation of this type of analysis see C. R. Rao, *Advanced Statistical Methods in Biometric Research* (New York: John Wiley & Sons, Inc., 1952), pp. 273-378.

Thus, using results of our analysis, we correctly predicted what 31 of the 42 agents would do—stay or quit. We were correct on 73.8 per cent of the 42 agents. Compare this with the fact that only 48 per cent of all those employed during 1945-1961 remained in the Service (shown in Table 1). If one of the objectives in selecting personnel for employment in Extension is to identify prospects who will likely continue in the Service, our testing procedures were 25 per cent better than the system used in making selections from 1945 to 1961. Such an improvement could represent quite a saving in time and money. Our typical agricultural agent appears to be more of an administrator with a touch of social service and salesmanship than does the person who quits. He is less like the farmer than we might originally have thought.

Table 2. Predicted classification by use of test scores of agricultural agents employed in Indiana as to whether they would stay or quit.

Classification	Actual number	As predicted from test results	
		Right	Wrong
Stay	17	13	4
Quit	25	18	7
	42	31*	11

* Thirty-one of the 42 agents were correctly classified, or 73.8 per cent.

CONCLUSION

The above results encourage us to believe that it may be possible to reduce turnover from the profession by properly utilizing test results in place of using trial and error selection methods. Furthermore, we feel that test results could be of value in guiding persons contemplating Extension as a career, in recruiting likely candidates, and in screening out persons who represent poor training risks.