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ABSTRACT

Several studies have found that a realistic job preview reduces the rate of voluntary turnover. This study was conducted to determine whether the addition of a video-based test to a traditional selection process would improve selection decisions, increase the accuracy of job expectations, and reduce turnover. Bank tellers (N=180) who had been selected using a traditional selection procedure (application, telephone screening interview, unstructured interview, and reference check) were compared with tellers (N=250) who had been selected using the same procedure plus a video-based selection test containing a realistic job preview. Applicants who did not pass any one of the selection instruments were not hired. Supervisors completed subjective ratings and collected objective performance measures using computer-generated reports for subjects at 30-day intervals up to 180 days after hiring. Tellers hired after passing the video test exhibited significantly better performance than did tellers selected using the traditional process alone on the objective performance measures, but the two groups did not differ significantly on the subjective performance ratings. Tellers in the video group made fewer and less costly mistakes, took fewer sick days, and had less turnover than tellers in the traditional group. The results suggest that the job preview offered in the video test did not increase accuracy of expectations. (NB)

Improving Performance and Retention Through Video Assessment: A Longitudinal Study

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Improving Performance and Retention Through Video Assessment: A Longitudinal Study

Abstract

Group A (n=180) tellers were selected using a traditional selection procedure, and Group B (n=250) tellers were selected using the same procedure plus a video-based selection test containing a realistic job preview. Group B exhibited significantly better performance on objective performance measures, but did not differ from Group A on subjective performance ratings. Turnover was significantly reduced in Group B. The accuracy of the job preview did not differ significantly between the two groups. All performance measures correlated significantly with length of tenure. Turnover reduction was attributed to improved selection decisions rather than to more accurate job expectations.

Introduction

Several studies have summarized the research on the validity of alternative selection methods, and methods which simulate the job (e.g., assessment centers, work samples) have high validity coefficients (Hunter & Hunter, 1984; Schmitt, Gooding, Zoe & Kirsh, 1984; Reilly & Chao, 1982; Muchinsky, 1986). Simulations replicate job situations and elicit applicant behaviors that may be exhibited if similar situations occur on the job, but are often quite costly to develop and administer. Video-based assessment is a relatively new selection technique which uses video to simulate job situations. Validity estimates obtained for video tests are comparable to those found for assessment centers (McIntire & Thomas, 1990) and the tests are relatively inexpensive.

The recruiting and selection process usually includes selling the applicant on the positive aspects of the job. This may give applicants inflated job expectations and may lead to increased turnover rates. Several studies have found that a realistic job preview reduces the rate of voluntary turnover (Ilgen & Seely, 1974; Meglino, DeNisi, Youngblood, & Williams, 1988; Reilly, Brown, Blood, & Malatesa, 1981). The video test selected for this study includes a realistic job preview.

Hypothesis 1: Tellers selected with the video test in addition to the traditional selection procedure (Group B) will perform better on the job (higher mean scores on subjective performance

measures and lower mean scores on objective performance measures) than will tellers selected using only the traditional selection procedure (Group A).

Hypothesis 2: Tellers who were administered the video test (Group B) will have more accurate job expectations than will those in Group A.

Hypothesis 3: Group B will have significantly less turnover than Group A.

Method

Subjects

Data were collected for 430 tellers hired in 1989 by a bank in the Northeast. Group A consisted of 180 tellers hired using the traditional selection procedure. Group B consisted of 250 tellers hired using the traditional selection process plus the video test. Of the 430 tellers, 78 percent were female, 42 percent were white, and 41 percent were black. The highest educational degree obtained by 81 percent of the total sample was a high school diploma. Eighty-three percent of the sample had no prior teller experience.

Measures

Teller Assessment Program (TAP): TAP was developed in 1986 by Wilson Learning Corporation. Based on a traditional job analysis, TAP is an hour-long video simulation containing 37 multiple-choice questions. A five-minute introduction to the job of teller serves as part of the realistic job preview. TAP was originally validated using a predictive paradigm and found significant correlations ($R=.47$, $p<.05$, after correction for criterion unreliability) between video test scores and supervisory ratings (Assessment Designs, Intl., 1989).

Preview Accuracy: The preview acccuracy questionnaire contained nine items. Respondents rate how strongly they agree or disagree with statements indicating that they were given an accurate description of various aspects of the job (e.g., customer interactions, money handling) during the hiring process. Items were rated on a five-point Likert scale, with 5 indicating "strongly agree," and 1 indicating "strongly disagree." The score was derived by summing the ratings and dividing by the number of valid responses.

Subjective Performance Ratings: Using a five-point scale, supervisors were asked to rate how frequently the employee performed each of 48 behaviors on a checklist. Scores were derived by summing the ratings and dividing by the number of items rated. Supervisors also rated tellers' overall performance on a five-point scale as follows: Outstanding = 5, Above Expected = 4, Expected = 3, Below Expected = 2, Unacceptable=1.

Objective Measures: These measures were each based on a one-month period and included the number of times the teller was out of balance, total dollar amount over balance, total dollar amount under balance, and number of sick days.

Procedure

Group A (n=180) tellers were selected from January through April of 1989 using the traditional selection procedure, which involved an application, telephone screening interview, unstructured interview, and a reference check. Group A served as the closest approximation of a control group possible. Group B (n=250) tellers were selected from May through December of 1989 and were administered the same procedure. Group B was also administered the video test at a regional office prior to or following the employment interview. Applicants who did not pass any one of the selection instruments were not hired. Tellers completed the preview accuracy questionnaire between two and eight months after hire.

Supervisors completed subjective ratings and collected objective performance measures using computer-generated reports for subjects at 30 day intervals up to 180 days after hire. Supervisors did not know teller's video test results.

Results

Chi-square analyses on gender, race, highest educational degree obtained, and previous experience revealed that the composition of Groups A and B did not differ significantly.

Descriptive statistics of the video test scores were computed for Group B (M=80.10, SD=7.00, range = 70-99). Only those scoring at or above the cutoff (70) were hired. The number of tellers not hired based on their TAP score could not be determined because non-tellers were also tested.

A composite score was computed for each teller on each performance measure by averaging the individual's scores taken at each interval. The absolute values of the composite scores on "total dollar amount over balance" and "total dollar amount under balance" were summed to achieve a composite "total dollar error variance" score. Leaving the position for any reason (e.g., fired, resigned) was defined as turnover.

Hypothesis 1: T-tests revealed no significant differences between the two groups on subjective performance measures. Mann-Whitney U-Wilcoxon Rank Sum W tests (used since objective measures scores were not normally distributed) revealed that Groups A and B did differ significantly on all objective performance measures: times out of balance (Z=-6.30, p<.0001), total dollar-error variance (Z=-5.39, p<.0001), and sick days (Z=-3.36, p<.001). See Table 1 for descriptive statistics.

Hypothesis 2: A t-test revealed that the groups did not differ significantly on mean preview accuracy scores nor on the variance. An additional t-test determined that the mean preview accuracy scores of tellers without experience in each of the groups did not differ significantly.

Hypothesis 3: Figure 1 shows the retention percentages for Groups A and B in the 14 months following hire. Chi-square tests comparing turnover percentages at each month after hire revealed that turnover rates for the groups were significantly different at 10 months (χ^2=3.86, df=1, p<.05), 11 months (χ^2=4.15, df=1, p<.05), and 14 months (χ^2=4.03, df=1, p<.05).

Since these results did not support the hypothesis regarding expectations but did show a turnover reduction, it was further hypothesized that more accurate selection decisions may have influenced turnover rates. The number of months on the job correlated positively with both supervisory performance ratings (r = .26 and .22, p < .01) and negatively with all objective measures of performance: out of balance, r = -.14, p < .05; dollar error variance, r = -.22, p < .01; and sick days taken, r = .19, p < .01). Months on the job did not correlate significantly with job experience.

Discussion

This study was conducted to determine whether the addition of a video-based test to a traditional selection process would improve selection decisions, increase the accuracy of job expectations, and reduce turnover. Tellers hired after passing the video test exhibited significantly

better performance than did tellers selected using the traditional process alone on the objective performance measures, but the two groups did not differ significantly on the subjective performance ratings. Therefore, Group B tellers made fewer and less costly mistakes, and took fewer sick days which is a highly desirable and practically significant outcome. One possible explanation for the lack of significant differences between groups on the subjective measures is that rating errors and biases may have influenced supervisory ratings.

The group selected using the video test did have less turnover; however, the results suggest that the job preview offered in the video test did not increase accuracy of expectations. One explanation of these results is that the instrument used to measure job expectations did not adequately assess expectations. It is also possible that applicants in Group A received an adequate and accurate job preview without viewing the video.

The turnover rate did not differ for those with and those without prior teller experience. Since those with previous teller experience should have accurate job expectations, this finding supports the conclusion that the accuracy of job expectations did not affect turnover. A study by Dean and Wanous (1984) supports the notion that realistic job previews alone do not produce turnover reductions.

An alternative hypothesis is that the improved accuracy of the selection method for Group B impacted turnover rates. Evidence to support this hypothesis is the significant correlation of months on the job with all subjective and objective performance measures. Given these results, the reduction of turnover seen in this study was more likely to have been the result of the selection of better performers than of more accurate job expectations. These results support previous research indicating that poor performers are more likely to leave the organization than are high performers (Dreher, 1982; Wells & Muchinsky, 1985; Kanfer, Crosby, & Brandt, 1988).

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Table 1. Descriptive Statistics of Composite Scores on Performance Measures

	Mean	SD	Range	Skew.	Kurt.
Total Supervisory Rating					
Group A	3.84	.54	1.87 - 5.00	-.76	1.13
Group B	3.90	.51	2.45 - 4.96	-.38	-.07
Overall Supervisory Rating					
Group A	3.29	.77	1.00 - 5.00	-.39	.34
Group B	3.36	.76	1.00 - 5.00	-.42	.26
Times Out of Balance					
Group A	4.83	5.41	0 - 26	1.71	2.46
Group B	1.66*	2.03	0 - 15	2.88	12.13
Total Dollar-Error Variance					
Group A	$ 164.80	275.64	0 - 2429	5.46	41.66
Group B	$ 54.89*	99.51	0 - 1000	5.40	44.18
Sick Days Taken					
Group A	1.98	3.14	0 - 18	2.80	8.94
Group B	.86*	1.39	0 - 9	2.67	9.07

* This Group B mean was significantly lower than the Group A mean.

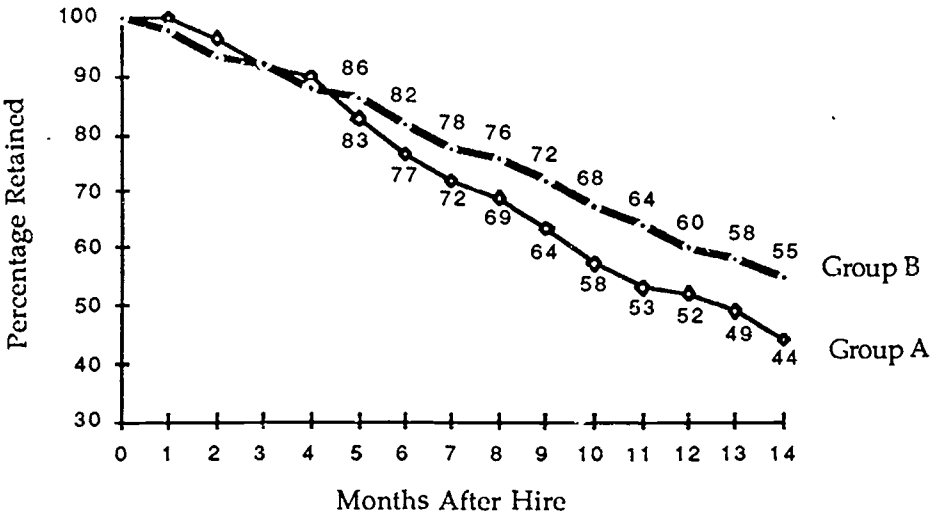

Figure 1. Retention Percentages of Groups A and B