

## WHAT FACTORS AFFECT A PROMOTION SYSTEM'S LONG-TERM USE?

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### ABSTRACT

Views of constituents toward alternative promotion systems are examined. Using a survey with 11 bipolar adjective scales, subjects compared a performance-based system to a content-based exam for two positions in a state agency, one professional and one upper management. The performance-based system was rated as more effective, innovative, and comprehensive, but also less efficient ( $p \leq .05$ ) for both positions. A qualitative analysis of the agency over twenty-five years suggests that initial positive perceptions of the promotion system, along with support from top management and the corporate culture, are fruitful areas to research in explaining a promotion system's length of use.

Keywords: promotion system, performance-based, content-based, employee perceptions, bipolar adjective scale

## INTRODUCTION

Selection systems for promotion take many forms, including interviews, application blanks, resumes, oral examinations, written examinations, situational judgment tests, assessment centers, personality tests, evaluation of prior experience and biodata (Ash and Levine, 1985; Cole, Rubin, et. al., 2007; Eleftheriou and Roberson, 1999; Gatewood and Field, 1998; Hunter and Hunter, 1984; Lievens, Buyse, and Sackett, 2005; McDaniel, Bruhn-Finnegan, et. al., 2001; McDaniel, Whetzel, et al., 1994; Morgeson, Campion, et al., 2007; Rothstein, Schmidt, et. al., 1990; Sackett, 1998; Schmidt and Hunter, 1998; Stokes and Cooper, 2001). While the focus of literature on promotion systems is their validity in predicting performance, another factor to consider is the length of time that a system will continue to be used.

Over time, one would expect promotion and selection systems to be modified or replaced entirely. The cost of administering performance testing is considerable, and management periodically evaluates a system's validity and its ability to assess employee attitudes, qualifications and perception of business need (Smith and Lee, 2007). Add to those influences the changes in management personnel that inevitably occur, and it is easy to see why even proven systems will eventually be discarded and a new system tried.

In complex organizations driven by inertia as much as by change, managers seek more than validity when considering change in evaluation systems, and often rely on information that is more pragmatic than scientific. For example, research by Thibodeaux (2004) showed management's understanding of an existing system's purpose and relevance to be related to the decision to continue using it (Thibodeaux, 2004). It has also been found that managers favor unstructured interviews over structured interviews even though structured interviews provide greater validity (Dipboye, 1997; Kossek, 1989; van der Zee, Bakker & Bakker, 2002).

Organizational norms also affect decisions about selection techniques. Employee perceptions of what is just in a testing process and concomitant positive or negative judgments of that process reach top managers (Bell, Weichman, and Ryan, 2006), who are concerned about the attitude of applicants toward the exams they take. Meta-analysis by Hausknecht, Day, and Thomas (2004) confirms the justification of this concern in research across 86 independent samples with an n of close to 50,000. In their analysis, applicants who held positive perceptions about an organization's method for selecting employees were more likely to view the organization favorably and to report stronger intentions to accept job offers and recommend the employer to others.

This is of particular concern for managers who seek high-level employees but have limited resources. In a state agency such as the one studied here, where employee resources across agencies is limited, a positive perception of an agency can play an important role in attracting talented personnel.

There are other reasons for the emphasis on pragmatism in the evaluation of selection systems. While the longevity of a system should be related to its validity, it is not easy to demonstrate validity for positions involving a limited number of candidates and an even smaller number of promotions in a short period of time. This is a common situation in non-entry level professional positions and higher-level management positions. For this reason, it is not surprising to find research suggesting that candidate

views of selection fairness have a relationship to the popularity in usage of various selection methods (Anderson and Cunningham-Snell, 2000). Nor is it surprising to discover from recent research that stakeholder participation in the choice of evaluation systems increases the perceived compatibility of the systems with current merit pay and promotion practices. Management support of a specific system is also reported to play a role in the system's perceived advantages (Schaffer, 2002). Overall, research suggests that continued use of a given selection system is more about employee and management attitudes and organization culture than about the scientific or technical qualities of the system itself.

The present study uses data on constituent attitudes toward a newly implemented promotion system to establish that such views have a relationship to a system's longevity of use. The data were collected starting in 1983 to compare employee perceptions of a new performance-based promotion system that used prior experience and current job performance as predictors of future success to the standardized content-based exam used prior to that time. In those years, content-based oral examinations were prevalent in state agencies, and they continue to be used for a host of entry-level and higher positions within government (Consortium for State Court Interpreter Certification, 2000, 2005; Minnesota Department of Natural Resources, 2007; New York State Department of Civil Service, 2007; Pennsylvania State Police, Bureau of Human Resources, 2007; State Personnel Board of California, 2007; U.S. Department of State, 2007). Initial reaction to a performance-based system was more positive than reaction to a content-based oral exam.

Two and a half decades have passed since the original data were collected, providing a sufficiently long time frame within which to consider the relationship of original perceptions and other factors to the performance-based system's long-term use within the agency. We first present the original research comparing the attitudes of state agency employees toward the two promotion methodologies to demonstrate the perceived superiority of the performance-based system. We then consider additional factors that have affected the long-term use of the performance-based promotion system, with a focus on the constituent attitudes, top management support and organization culture.

## QUANTITATIVE HYPOTHESES

Oral exams had been in use by the state agency for many years by 1983. They consisted solely of content questions relevant to the promotion position. These questions varied from exam to exam, making it difficult for developmental efforts to have a predictable impact on future scores. Moreover, oral exams did not have a clear relationship to two factors thought by management to be critical to promotion decisions: prior job experience and current performance. In contrast, the new, performance-based system had a strong link to organizational needs and provided a clear path for development. Thus, it was expected that performance-based system would be viewed more positively than the oral content-based exam.

H1: For the professional position, perceptions of the performance-based system will be more positive than for the most recent content-based exam.

H2: For the upper-level management position, perceptions of the performance-based system will be more positive than for the most recent content-based exam.

## **QUALITATIVE RESEARCH QUESTION**

For every organizational system there are costs associated with implementation. Hence it is to the benefit of an organization when a chosen system proves satisfactory and remains tied to managerial goals for a substantial period of time, increasing cost effectiveness and maximizing organizational confidence in its results. Understanding what contributes to long-term use of a system is important. Thus, the second objective of this research was to consider the factors affecting the length of time that the state agency used the promotion system. There is no quantitative data on this question in this study. However, the availability of data on initial perceptions of the system, the continued availability of the content-based exam, and the twenty-five year period of observation by the researchers provided a window of opportunity for qualitative assessment that can serve as a starting point for future research.

Qualitative research question: What affects the long-term use of a promotion system?

## **THE AGENCY AND THE PROMOTION SYSTEM**

This study began twenty-six years ago with the implementation of a performance-based promotion system for a state agency. The goal was to develop a superior alternative to a content-based oral exam used for promotion decisions for two key positions. The agency was relatively small, with approximately 250 employees. Promotion was possible through a series of six line positions. Other positions existed within the agency but these were either very specialized, such as econometrician, or were clerical functions that supported the line positions.

Among the line jobs, the position just above entry-level was considered to be the key professional position within the agency and was occupied by about 60 employees. One performance-based promotion system was developed for this position. The next level involved supervision of the professionals in the two positions below it (the entry-level and key professional positions). The agency continued to use the centralized Civil Service content-based exam for promoting candidates into this position. The next level was an upper-level management position that was occupied by about 25 employees who directed supervisors in the position below it. A performance-based promotion system was also developed for this position.

The next two positions were considered senior management and involved top administration decision-making and high-level interaction with agencies requesting budgetary support. Individuals in these ten to twelve positions maintained oversight of those in the upper-level management positions. Two executive positions existed above senior management, with the Governor appointing the people filling those positions.

Of the two positions for which the performance-based system was developed, one was a professional position for which responsibilities included financial analysis and recommendations regarding budget requests made to this agency by other agencies. The other was an upper-level management position. Compared to the professional position, the upper-level management position involved closer working relationships with senior management, fewer technical activities, higher-level interactions with

agencies in their annual requests for budgetary support, and management of supervisors one level down. Both positions were applied for by internal agency employees, the former by entry-level employees hoping to be promoted into the key professional position of the agency, and the latter by supervisors hoping to be promoted to upper-level management.

Because this agency was relatively small, and because promotions involved grade level increases to substantially different levels of responsibility, wide participation was sought in system development. The process included interactions with almost all agency employees from executives and senior management to candidates, incumbents and supervisors. Agency executives and senior management believed that the new promotion system for both positions should have a clear, observable link to future performance. Hence, in creating the new system, developers emphasized prior job-related experience and current performance. Information on prior job-related experience was gathered from employee written essays and current performance was measured by a performance appraisal.

Unlike the former content-based exams, the new performance-based promotion system was handled in decentralized fashion, with the agency taking on all of the work involved in its implementation, evaluation, and continued upgrading over time. The system required that two subject matter experts (SMEs) unfamiliar with the candidates review prior experience essays, and that supervisors complete comprehensive performance appraisals for the candidates. Because so many people were required for those tasks, a large number of employees within the division were involved with the system.

Once candidate experience and performance scores were ascertained, candidates met with a three-member panel, called the Verification Panel, which reviewed their experience and current performance. The panel's job was to settle any disputes between the candidate and his or her supervisor over the accuracy of the performance appraisal, and to resolve discrepancies between experience claimed by candidates in their essays and their performance. In short, the panel was put into place to assure fairness in supervisors' performance appraisals and accuracy in candidates' prior experience essays. The latter was particularly important because candidates could include any experience that could be verified, within or outside of the agency. In an effort to maximize impartiality, panels for the lower level position were composed of upper level division managers, and panels for the upper level position were composed of former upper level employees who had recently retired or moved to higher positions in other agencies. The panel could inquire about appraisal disputes and discrepancies between experience and performance scores, and could request a general commentary from candidates. The panel could also call in supervisors or their supervisors, as necessary, for additional investigation. The panel was not permitted to ask questions of a content nature.

The Verification Panel had the authority to adjust the final standing of each candidate. However, though changes in candidates' scores could be made when circumstances dictated, such change was rare. The real benefit of the panel was its role in creating trust in the new system. In hindsight, implementation of this labor-intensive mechanism was valuable less for assuring fairness than for assuring constituent perception of fairness.

## **PARTICIPANTS**

Participants were 56 employees who were familiar with both the performance-based system and the content-based exam for one of the two positions, professional and upper-level management. Those responding to survey questions about the upper management position were upper level managers. Those responding to questions about the lower-level professional position were supervisors of those in the professional position.

Surveys were not sent to any respondent until six months after the Civil Service announced and certified the list of candidate standing on the exams. In addition, to eliminate the influence of candidate standing in the new system, respondents did not include any employee who had been evaluated by the new system.

Surveys were sent to each employee recommended by the agency. Of the 57 employees asked to complete a survey concerning the professional position, 43 responded, resulting in a response rate of 75.4 percent. For the upper management position, 13 of the 23 employees asked to complete a survey responded, resulting in a response rate of 56.5 percent. The total response rate was 70 percent.

## **DESIGN AND PROCEDURES**

In order to assure, as much as possible, that those completing the survey were familiar with both selection types for the two positions, respondents were asked to rate their familiarity with the new performance-based promotion system and the most recent content-based promotion exam on a six-point scale with no midpoint: completely unfamiliar, moderately unfamiliar, somewhat unfamiliar, somewhat familiar, moderately familiar, and completely familiar. Familiarity with the new performance-based system came from one or more of the following activities: rating employees as a supervisor, reviewing ratings made by a supervisor as a higher-level manager, evaluating an experience document, serving as a member of the Verification Panel, or helping to develop the performance appraisal instrument or the experience instrument. Familiarity with the content-based exam came from having taken one recently for the same position in the agency or having served as a committee member grading the exam for the same position for Civil Service.

Respondent perceptions of the performance-based system and the content-based exam were assessed with a set of 11 bipolar adjectives developed by the promotion system developers and senior management. Respondents were asked to describe how they felt using a six-point scale with no middle point for the 11 adjectives shown below. In this system, 1 indicated "slightly," 2 indicated "quite," and 3 indicated "extremely" on both sides of the scaling system. So, for any given bipolar adjective, a respondent would endorse one adjective or the other within the range of slightly to extremely. The scaled adjectives are displayed below.

Unsuccessful	3	2	1	1	2	3	Successful
Understandable	3	2	1	1	2	3	Ambiguous
Inappropriate	3	2	1	1	2	3	Appropriate
Efficient	3	2	1	1	2	3	Inefficient
Unfair	3	2	1	1	2	3	Fair
Pleasant	3	2	1	1	2	3	Unpleasant
Ineffective	3	2	1	1	2	3	Effective
Innovative	3	2	1	1	2	3	Typical
Easy	3	2	1	1	2	3	Difficult
Comprehensive	3	2	1	1	2	3	Narrow
Inaccurate	3	2	1	1	2	3	Accurate

## RESULTS OF QUANTITATIVE STUDY

Respondents were familiar with both evaluation formats. About 89 percent and 96 percent of those responding rated themselves as at least somewhat familiar with the most recent content-based exam and the new performance-based system for the position, respectively. For the upper management position, 100 percent of those responding considered themselves at least familiar with both formats. For the lower-level professional position, respondent familiarity was 86 percent and 95 percent for the content-based exam and the performance-based system, respectively.

The mean rating across the 11 bipolar adjectives for the two selection types and two positions are provided in Table 1. Differences in the ratings were analyzed using the Wilcoxon matched pairs, signed ranks test. This is the non-parametric equivalent of the paired t-test. It was used in light of the smaller sample sizes in the study. Statistically significant differences were found between the performance-based system and the content-based exam on nine of the adjectives for the professional position and on four adjectives for the upper-management position.

For the professional position, the performance-based system was perceived as more successful, less understandable, more appropriate, less efficient, fairer, more pleasant, more effective, more innovative, and more comprehensive. For the upper-management position, the performance-based system was perceived as less efficient, more effective, more innovative, and more comprehensive. For the preponderance of ratings, the performance-based system was perceived in a more favorable light than the content-based exam. Thus, H1 and H2 are supported.

Table 1  
Mean Ratings for the Two Exam Types Across  
11 Bipolar Adjectives for Both Positions

Adjective	Professional Position (n=46)			Upper-Management Position (n = 13)		
	Mean for Oral Exam	Mean for New Exam	Difference from Oral	Mean for Oral Exam	Mean for New Exam	Difference from Oral
Unsuccessful	4.2	4.7	.5**	3.8	4.3	.5
Understandable	4.6	4.1	-.5*	4.6	4.1	-.5
Inappropriate	3.9	4.8	.9***	4.1	4.6	.5
Efficient	4.3	3.1	-1.2***	4.0	3.4	-.6*
Unfair	3.9	4.5	.6*	4.1	4.4	.3
Pleasant	3.0	4.0	1.0***	2.8	3.5	.7
Ineffective	3.9	4.4	.5*	3.7	4.4	.7*
Innovative	2.0	4.6	2.6***	2.8	5.2	1.4**
Easy	3.7	3.6	-.1	4.0	3.8	-.2
Comprehensive	3.4	4.5	1.1***	3.5	4.7	1.2**
Inaccurate	3.9	4.1	.2	3.7	4.1	.4

\*Difference significant at .05 level, \*\* .01 level, and \*\*\* .001 level.

## IMPLICATIONS FOR QUALITATIVE RESEARCH

The qualitative research question addressed was, “What affects the long-term use of a promotion system?” Looking back from the perspective of 25 years, it can be posited that the results of the quantitative analyses, i.e., positive attitudes held by constituents from the first use of the performance-based system, are related to the long-term use of the system. For both positions, respondents agreed that the performance-based system was more effective, more innovative, and more comprehensive than the content-based exam, but it was also considered to be less efficient. Neither was considered more or less difficult or more or less accurate. Thus, the long-term use of the performance-based system suggests that effectiveness of outcome, innovativeness of process, and comprehensiveness of coverage was considered more important than efficiency of administration.

The primacy of effectiveness, innovativeness and comprehensiveness over efficiency is evident in other factors associated with the new promotion system. Its use had the support of executives and senior management, which manifested itself in consistent investment in keeping the system up-to-date. In addition, managers and professionals in the agency willingly took on labor-intensive tasks necessary for administration. Moreover, as mentioned earlier, the agency took on the work of system implementation and evaluation. While this gave the agency greater control over the promotion system, it also deprived them of resources that would have come from Civil Service had they continued with the content-based exam, reducing resources for line

activities. Taken together, this represents a large investment of resources throughout the agency.

This commitment persisted and grew. Over time, a broader style of management evolved with a greater focus on assuring that employees had experience that would contribute toward promotion. In turn, that led to an increased level of performance required of candidates. In short, the belief in the superiority of the system that began with its first use became ingrained in the culture of the agency.

Edgar Schein defines culture as a set of “shared basic assumptions that the group learned as it solved its problems of external adaptation and internal integration, that has worked well enough to be considered valid and therefore, to be taught to new members as the correct way to perceive, think, and feel in relation to those problems” (1993, pp. 373-374). That the perpetuation of the performance-based system can be attributed to its having a place in the agency’s culture can be seen in its having a life span beyond the individuals originally responsible for its existence. Since the initial administration of the new system in 1983, virtually all those people originally involved with the system have either retired or moved to higher-level positions within the agency. The performance-based system remained in place through many different managers and even through changes in Governor-appointed top management. Consistent upgrading of the system was assured by retention of the system developers for ongoing, annual oversight, including the most recent administration of the upper management system in 2007. It should be noted, too, that other selection systems, including the original content-based exam, were made available to the agency during this 25-year period.

Thus, based on the case of this agency, we would suggest the following as fruitful avenues of research on the influences of long-term use of organizational promotion systems: the positive perception of the value of the promotion system from its inception; ongoing support from top management, including allocation of resources for continued upgrading and support of concomitant changes in managerial style; ongoing involvement of system experts; and support from the corporate culture.

Results of the quantitative study also showed the performance-based promotion system to be perceived as less efficient than the content-based exam. For many years, belief in the superiority of the performance-based promotion system outweighed cost and efficiency considerations. However, in 1998, after 13 administrations to 304 candidates, the agency switched from the performance-based system for professionals to a more traditional exam format. The reason was the labor intensity of the process, i.e., its inefficiency compared to the objective, easily evaluated content-based exam. On the other hand, the performance-based system for upper management position remains in use. From 1983 to 2007, it has been administered seven times to 194 job candidates. Its continued use is attributed to its effectiveness in identifying candidates with high quality experience and job performance for this position. The upper management exam remains labor intensive but top management insists that the extra effort is necessary for promotions into this high profile position.

A usage comparison for the two positions reveals that the labor intensive, performance-based system was discontinued in the more resource-demanding situation. Over the years the professional position generated a larger number of candidates (304 to 194 for the upper management position) and required more frequent

administrations (13 to 7 for the upper management position). These numbers suggest that there is a tipping point at which inefficiency becomes impossible to ignore. Thus, we would argue that eventual capitulation to cost concerns does not undermine our conclusions, but rather that the longevity of the performance-based system in spite of its inefficiency underscores the strength of constituent belief in and support of the system.

## CONCLUSIONS

The focus of the current research was twofold: a quantitative study of the perceptions of performance-based versus content-based evaluations for promotion, and a qualitative examination of the relationship of perceptions of a promotion system to the longevity of its use. The research first hypothesized that constituents within a state agency charged with financial management and budgetary decisions would perceive a promotion system based on the assessment of prior experience and current performance more positively than content-based oral exams for the same positions.

Study results supported this hypothesis. Statistically significant findings showed that constituents found the performance-based system to be more effective, innovative, and comprehensive than the content-based exam. However, results also showed the performance-based system to be considered less efficient than the content-based exams administered on a central basis by state agencies such as Civil Service.

Next, a qualitative analysis of the agency looked at the relationship between constituents' perceptions of the performance-based promotion system and the long-term use of that system. The commitment of executives and senior management to the performance-based system was evidenced through top management's allocation of resources on system administration and on oversight and improvement of the system by outside developers, middle management's willingness to take on administrative responsibilities, the increasing focus of management on increasing employee experience, and the continued use of the system throughout many changes in management at all agency levels.

In 1981, it was the view of the chief executive who supported the new system that it would attract the best talent to an agency he felt was critical to the state governor. He was concerned that content-focused exams would fail to provide flexibility across agencies with differing political roles, varying cost structures and varying federal government support. Moreover, he understood the importance a promotion system that was perceived by employees to be relevant to future success, and believed that such a system should be based on experience and performance, not knowledge content. He felt strongly that the system should be fair, and that candidates should perceive it as such.

The Verification Panel was an important factor contributing to a belief in the system's fairness. Candidates believed, correctly, that disputes of the performance appraisal piece of the system would be investigated. Supervisors and their supervisors were called into the panels as necessary to explain ratings disputed by candidates or inconsistent with prior experience. Managers, too, trusted the system. Based on observable behaviors and related to prior experience, its usefulness as a predictor of success was easy for management to accept.

Since the design of the performance-based selection system investigated in this study, the scholarly literature has begun to suggest and confirm the central role of

constituent views (including those of senior management, supervisors, and employees) in determining how long a selection system will be used, an influence that supersedes the influence of empirical factors. The agency analyzed for this study was characterized by a top management team concerned with flexibility and fairness, and willing to commit resources to system development and sustainability; employees who understood the importance of their involvement with system development and administration, and were positively disposed toward the system from its inception; and a culture that carried belief in the system through two and a half decades. The current study has lent support to the importance of these particular constituent characteristics in predicting the longevity of promotion systems. Further research is warranted.

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