

PERSONNEL PSYCHOLOGY
2006, 59, 433-456

THE SCIENCE AND PRACTICE OF A STRUCTURED EMPLOYMENT INTERVIEW COACHING PROGRAM

TODD J. MAURER*

Department of Managerial Sciences
Georgia State University

JERRY M. SOLAMON*

City of Atlanta

We describe a scientist-practitioner collaboration around a structured employment interview coaching program. This description includes information on how the program was developed and applied, the program content, connections with past literature, and a description of context. We also provide rich anecdotal information and surveys on reactions by users as well as input from the community and various other constituencies. We also describe scientific research on this intervention that has examined its various effects. The specific project goals were to (a) provide assistance to promotion candidates in preparing for a structured panel interview and to survey employee reactions to the program, (b) determine whether the intervention had an effect on interview performance and what preparation and response strategies in a structured interview seemed to be associated with performance, and (c) provide these benefits without negatively influencing validity and reliability of interview procedures, and if possible, enhance these psychometric characteristics. The information provided here can assist those who want to apply this type of intervention successfully in other selection settings.

This report describes the development, administration, and applied research relevant to a structured oral interview coaching program used to prepare public safety promotional testing candidates in the city of Atlanta. The original intent of the program was to address some of the issues raised by the candidates who had participated in previously administered structured oral interviews. For example, candidates did not know how to prepare for the interviews and did not know how their performance in the interview was being evaluated. In the process of developing the coaching program, a review of the literature showed that very little research had been conducted on coaching candidates for interview

*Both authors contributed equally to this article. The authors' names are therefore listed alphabetically.

Correspondence and requests for reprints should be addressed to Todd J. Maurer, Department of Managerial Sciences, Georgia State University, P.O. Box 4014, Atlanta, GA 30302-4014; tmaurer@gsu.edu.

COPYRIGHT © 2006 BLACKWELL PUBLISHING, INC.

preparation. Thus, an opportunity existed to both serve the needs of promotional testing candidates and to also advance the practice and science of personnel psychology.

The goals of the project were

- (1) to provide assistance to promotion candidates in preparing for the structured interview and to survey employee reactions to the program,
- (2) to determine whether the intervention had an effect on interview performance and identify what preparation and response strategies in the interview seemed to be associated with success, and
- (3) to achieve all of the above goals without negatively influencing the validity and reliability of interview procedures, and if possible, enhance these psychometric characteristics.

This report is organized to present information relevant to each of these three goals in turn. However, in order to first provide a context, a brief history of promotional testing in the city of Atlanta is helpful.

Description of History and Context

Public safety promotional testing in the city of Atlanta experienced many changes during the last 30 years. In the 1970s and early 1980s, the city was more involved in litigation than in test administration. Charges of discriminatory testing practices from majority and minority factions dominated this time period. Testing resumed during the mid- to late-1980s but was again halted because of similar allegations. It was not until the 1990s that a comprehensive effort was undertaken to ensure the future of public safety promotional testing in the city of Atlanta.

During this time, the ground rules for future promotional testing were established. A committee composed of city representatives from various departments negotiated the terms of the new agreement. The agreement was assembled in the form of a city ordinance approved by City Council in 1992. After the city ordinance was established, the Police and Fire Promotional Testing Division was created. The high-profile division was staffed with two in-house employees trained in industrial-organizational psychology. The division was intentionally located within the Department of Human Resources, thus removing it from direct police and fire control.

One of the first tasks performed by the division was to meet with promotional candidates to determine their concerns and answer questions about the upcoming process. Promotional testing kickoff meetings were held with union leadership followed by open meetings with the general membership. Candidates reported being uncertain regarding how the new testing process would be administered. The testing staff found that

candidates were most concerned with the structured oral interview portion of the examination process. Specifically, candidates desired assistance in preparing for the interview and clarification on how they would be assessed during the interview.

The structured oral interview coaching program was developed to meet the needs described above. Before proceeding into the structure and content of the coaching program, it is important to understand where it fits into the testing process. For each of the four ranks involved (police sergeant, police lieutenant, fire lieutenant, and fire captain), a written examination and structured oral interview were administered. A 120-day study period was observed prior to the written examination. Approximately 45 days into this period, a voluntary written examination coaching program was offered to candidates. Candidates who achieved a passing score on the written examination were scheduled for the structured oral interview. Approximately 3 weeks prior to the beginning of the interview process, the structured oral interview coaching program was offered.

Although the original studies reported elsewhere (Maurer, Solamon, Andrews & Troxtel, 2001; Maurer, Solamon & Troxtel, 1998) provide much more detail, a few details will be given here on the interview itself. It was conducted by four-member panels. Panel members were trained in the administration of the interview process. The interview was composed of 12 questions. The questions were developed around situations that were appropriate for each rank. A sample police question (taken from the coaching material) is "An officer in your sector wants to discuss his personal problems with you on a daily basis. He is making excessive demands on your time and it appears to be getting worse. What do you do?" Interview scores were based on averages from panelists' ratings.

Structure and Content of the Interview Coaching Program

Techniques used to improve performance on tests fall into several related categories (Anastasi, 1981; Cole, 1982; Kulik, Bangert-Drowns, & Kulik, 1984): practice, tutoring, and coaching. Practice involves a person taking a form of a test and getting experience at the task. Tutoring involves actual instruction within the content domain measured by the test. Coaching is a broader category in comparison to practice and tutoring and may involve many tactics. Coaching may include instructions on test-taking strategies, identification, and explanation of the dimensions being measured by the test, and the knowledge, skills, and abilities needed to score well on the test (Sackett, Burris, & Ryan, 1989). Most of the research that has addressed interventions employing these tactics has found small but significant gains in achievement, aptitude, and ability test performance by coaching participants.

Along these lines, Campion and Campion (1987) point out that most research on interviewee skills training involves some combination of lecture, discussion, role-playing or practice, feedback, and reinforcement. They also refer to meta-analyses on managerial training that suggest that combinations of techniques, such as lecture and discussion plus role-playing or other practice are effective on a variety of training criteria (Burke & Day, 1986). Campion and Campion (1987) used an intervention with three sections: (a) advice on interviews drawing from popular literature with suggestions and advice on how to do well in an employment interview (cf. Drake, 1991; Hellman, 1986; Krannich, 1995; Miller, 1994); (b) practicing answering questions and role-playing with feedback; and (c) information on types of interviews and interviewing and illustrations on how to perform, along with lecture about research on interviews. Latham (1987) identified 11 different training methods on interview training from the literature, and Sackett et al. (1989) noted that typically research on interviewee training has commonly included observation/modeling, role-playing, lecture and discussion, and feedback.

The voluntary program was offered twice daily on three consecutive days. This schedule allowed for candidates on all three shifts to attend while off shift. The dates, times, and location for the sessions were presented to candidates at the time of application as part of a test administration schedule. Candidates normally attended one coaching session because the topics covered for all sessions were the same. Separate sessions, though, were conducted for both police and fire candidates. The interview coaching sessions lasted between 1.5 and 2 hours, with 2 hours being the norm.

The coaching program was divided into eight sections that incorporated the tactics and techniques described above. Each attendee received a coaching booklet that outlined the content for each section. The content of the coaching booklet was covered in its entirety, therefore eliminating the need for candidates to take extensive notes. The coaching booklet is presented in Appendix A of this report.

The first four sections introduced candidates to the interview process by providing an overview about how the process operates. Included in this overview was a brief description of how the interview would be administered; a discussion of interview day logistics; a presentation on different types of interviews, why structured interviews provide the best opportunity for candidates to demonstrate their mastery of the knowledge, skills, and abilities that are measured by the interviews; a description of how the questions were custom developed on the basis of the job analysis results for each rank; and a description of the type of questions that would be presented in the interviews.

The fifth and sixth sections provided feedback on improving interview performance. In an effort to be comprehensive, four sources of

information were used in this section. These sources included: (a) survey data from previous interviewees, (b) a review of general coaching literature (see examples of this literature cited above), (c) feedback from assessors on interviewee performance, and (d) a content analysis of answers provided as well as a review of content areas not mentioned by previous interviewees. Feedback from assessors on interviewee performance was gathered through informal group interviews held with assessors following each day's interviews. The "content analysis" was conducted by looking at actual test data. Human resources staff reviewed assessors' score sheets to determine the frequency with which each behavioral alternative in an item was mentioned across all candidates. For example, the content analysis revealed that many candidates did not mention utilizing resources that would be available to them at a higher rank. This revealed that many candidates were answering the questions from the perspective of their current rank as opposed to the higher rank for which they were interviewing.

The intent of these sections of the coaching (Sections 5 and 6) was to present a comprehensive list of strategies that can lead to improved interview performance on the basis of the sources listed above. Candidates were instructed to select those strategies that they believed would best aid their preparation and performance in the actual interview.

The seventh section of the coaching session involved conducting role-play exercises using example interview questions. The training room was set up to replicate actual interview rooms. A table and chair for use by the interviewee and two tables and four chairs that were used by the assessors were set up in front of the training room. Five interview questions were presented in this section. A different interviewee volunteer was used for each of the mock items. The remaining participants in the session served as assessors for the role-plays.

The facilitator began by providing the volunteer candidate with the interview question. Although the interviewee prepared an answer, the facilitator provided the remaining participants with a copy of the sample interview question as well as all of the behavioral anchors for the item. They were instructed to silently review the item and answers.

When the candidate was ready to begin, the interview question was read aloud. The candidate then responded with an answer. Although the candidate was responding, all other session participants checked off individual behavioral alternatives as they were provided. On conclusion of the response, the volunteer candidate was permitted to review the answers, whereas participants computed their ratings for the item.

When the scoring was complete, the facilitator reviewed the candidate's responses with the participants. A discussion of each behavioral alternative ensued regarding whether or not the candidate provided the answer in his/her response. A very high level of agreement

normally resulted among session participants. Where disagreement occurred, this was usually due to a participant not hearing a response that was actually provided, and this was pointed out by the other participants who heard the response. At the end of the discussion, participants were asked to provide their final rating for the candidate. Again, the ratings were usually identical. We believe it is at this moment in the coaching that the candidates gained significant confidence in the interview by seeing first-hand how it operated, seeing that the scoring system worked very well, and that it was fair. Furthermore, they gained an understanding of how they would be scored and that their scores would be consistent across assessors.

Feedback from the facilitator and other attendees was also provided to the volunteer candidate regarding the level of oral communications ability displayed when answering the item. The feedback was provided in the group setting, thus all participants in the session, not just the candidate, benefited from the discussion. The facilitator was aware of the rating guide used by assessors to measure oral communications ability and provided feedback on the basis of the guide. A 5-point scale was used on the rating guide, with anchors delineated in bullet form on three points of the scale. An example of "poor" oral communication performance includes "Candidate's responses were unclear, incomplete, unorganized, and wordy." An example of "adequate" performance includes "Candidate used most words correctly." An example of "outstanding" performance includes "Candidate's responses were completely understandable and easy to follow." The session participants sometimes also provided general feedback on the basis of generally accepted communication practices (e.g., speaking clearly and loudly). The facilitator ensured that all suggestions provided by participants were in accordance with the oral communications rating guide. Finally, participants were reminded to "be themselves" in the interview and to not adopt a communication style that was foreign to their own.

Following the role-play exercises, the facilitator proceeded to the eighth section of the coaching where a summary of general interview tips was provided. Sources used in developing these tips included interviews with previous assessors and candidates, the personal experience of the authors in observing prior interviews, and general literature addressing employment interviewing. Suggested behaviors included reviewing coaching material prior to the interview, having a positive attitude about the process, ensuring that the question being asked is understood, thinking and organizing thoughts before speaking, answering items thoroughly without expectation of being prompted for more information, making eye contact with all panel members, and dressing appropriately for the interview. The tips were very basic practices that were offered for candidates to consider as they both prepared for and performed in the interview.

TABLE 1
Survey Items and Data Summary

Response	Percent	Cumulative Percent
Overall, the interview coaching I attended helped me prepare for the interview		
Not at all	4.5	4.5
To a slight extent	24.3	28.8
To a moderate extent	36.0	64.9
To a high extent	26.1	91.0
To a very high extent	9.0	100.0
Total	100.0	
Overall, the interview coaching I attended helped me perform well during the interview		
Not at all	9.0	9.0
To a slight extent	21.6	30.6
To a moderate extent	41.4	72.1
To a high extent	19.8	91.9
To a very high extent	8.1	100.0
Total	100.0	

*Goals of Providing Assistance in Preparing for Interviews
and Surveying Employee Reactions*

The first goal of the program was to provide assistance to promotion candidates in preparing for the interview and to survey employee reactions to the program. Information relevant to this goal was taken from a variety of sources, including survey data, anecdotes, and written feedback.

One source of data came from interview participants in the form of standardized survey questions. Table 1 displays data for 111 police and fire interviewees who had attended an interview coaching session offered for the testing cycle in which they were participating. They responded to these questions immediately after they completed their actual interviews and left the interview room. We collected the reactions immediately after they completed their interviews so their self-assessed performance could be fresh in their minds. The data strongly suggest that participants felt the coaching helped them to prepare and to perform well in the interview.

Approximately 95% of interviewees reported that the coaching session helped them prepare at least "to a slight extent," whereas 71% reported that it helped them to prepare to a moderate, high, or very high extent. A little more than a third reported that it helped them prepare to a high or very high extent. Approximately 91% of interviewees reported that the coaching session helped them at least "to a slight extent" to perform well, whereas 69% reported that it helped them to a moderate, high, or very

high extent to perform well. Approximately 28% reported that it helped them to a high or very high extent to perform well.

From the candidates' standpoint, offering the coaching quickly demonstrated to promotion candidates that the testing division was responsive to their needs. Unsolicited, positive feedback was provided by candidates immediately following every coaching session. A formal request for written feedback about the program was solicited from participants after the promotional lists were assembled. A police sergeant wrote, "Attendance to the written and oral [coaching sessions] is essential. . . . You stressed attendance to these [sessions] and those of us who attended are grateful."

Reactions were extremely positive to the program, primarily because it helped candidates prepare and perform better in the interview. A fire captain wrote, "The [coaching] was beneficial to me. It confirmed my strategy for success and gave me insight into the city's strategy for evaluating my candidacy." In addition, it provided candidates with further knowledge about how the process was administered, which served to eliminate the mystery that previously surrounded the process. A second fire captain wrote, "Because of the [coaching] process I was able to understand how to take the test [interview]." Finally, a police lieutenant stated, "the optional [coaching] sessions were immensely helpful in allaying my fears and reducing my test anxiety."

Consistent praise was received from candidates who in previous years did not perform well in the interview, or well enough to earn a promotion, but attributed their recent interview success to the coaching. In fact, several candidates mentioned their belief that they would have been promoted much earlier in their careers if the coaching program had existed. A police sergeant summarized this point by writing, "a number of candidates, myself included, were leery of the oral portion of the exam. The general question many are and were forced to ask was 'How do and what do you study for an oral examination?' These questions were answered. We were shown the mechanics for preparing for and taking an oral examination. Once the oral examination mechanics were given, we were allowed to do practical exercises in front of a group of our peers, who critiqued each participant's oral board responses. . . . I am delighted with the current promotional process and only wish that it had come earlier in my career."

Reactions to the coaching were equally supportive from union organizations. Union leadership viewed the coaching as a developmental tool for improving members' chances of placing higher on the promotional eligibility register. The unions actively promoted the coaching by encouraging membership attendance. Leaders of the local chapter of the International Association of Fire Fighters (IAFF) provided their members with a personal example by participating in both the written examination and the structured oral interview coaching programs. The president and vice

president of the IAFF ranked in the top five on both the lieutenant and captain's eligibility registers, and both have since been promoted to chief officers. Because of their satisfaction with the process, the union lobbied City Council for several years to further expand the promotional testing process by including higher ranks that are filled by discretionary appointments. Police unions were also supportive of the coaching and testing program. The president of the local chapter of the International Brotherhood of Police Officers (IBPO) wrote, "I could not be more pleased with where the system is today. Officers know that they have an equal opportunity for promotion if they follow the study courses and apply themselves to their studies." In short, the union sentiment was that all candidates are presented with the same information and opportunities throughout the testing process, thus providing a level playing field.

Top levels of police and fire management also expressed support for the coaching. They felt that the testing division, by offering coaching, provided candidates with ample opportunity to succeed on promotional examinations. However, it was left to the discretion of individual candidates to take advantage of the opportunity. In short, they felt that the coaching served the additional purpose of separating motivated candidates from nonmotivated candidates, and it was the motivated candidates that they desired to promote. Police and fire command staff many times expressed their belief that the promotional testing system helped identify the best and brightest candidates for promotion. They attributed a significant part of this success to the coaching program.

The structured oral interview assessors, who are responsible for evaluating candidates' interview performance, also viewed the coaching as helpful. Each interview panel was composed of either three police or fire officers and a panel leader who held an advanced degree in I-O psychology. Panel members were exposed to the coaching program during assessor training. Assessors were not told which interviewees had attended the coaching, and the panel leaders were not those individuals who designed and/or administered the interview coaching intervention; however, some assessors stated they believed they had a good idea which interviewees had attended coaching because of the organized approach that many candidates used in the interview. Some panel leaders reported that such organized candidates scored higher on the interview and that assessors were more consistent in their ratings.

A final area of reactions to the coaching worth noting is the impact it had on the community. In another jurisdiction where the coaching process was replicated, a master videotape of a structured coaching session was produced. In order to provide department-wide access to the information, the sessions were broadcast over a local cable channel so that they could be viewed in fire stations. This channel also broadcasts to all cable households

in the jurisdiction. Thus, literally thousands of local taxpayers viewed portions of the coaching. Some citizens contacted the jurisdiction to express their support for the way the department was wisely spending their tax dollars to develop local firefighters. City officials also reported receiving face-to-face positive feedback about the coaching at civic functions.

Complaints about the promotional testing process have been nearly nonexistent since the coaching process began. Although many jurisdictions across the country have been consumed with promotional testing litigation, there has been only one legal challenge to any portion of Atlanta's promotional testing process since the coaching program was implemented. The city prevailed over this single complainant. Furthermore, the process has historically yielded demographically diverse promotion results, which may also add credibility and support for the process. Data do not exist to suggest that attendance at coaching decreased the likelihood of legal challenge. However, it seems that offering coaching, at a minimum, helped to demonstrate the testing division's interest in helping its promotional candidates prepare for advancement in their careers.

In sum, considering reactions from various constituencies, survey data, anecdotes, and written feedback, it appears that the coaching program provided assistance to promotional candidates in preparing for the interview and reactions to the program were positive.

Goal of Determining Whether Coaching Had an Effect on Performance and Identifying the Strategies Associated With Success in the Interview

Another goal in the project was to determine whether the coaching intervention had an effect on interview performance and to identify which preparation and response strategies in the structured oral interview seem to be associated with performance in the interview. Although research had addressed coaching interventions in relation to achievement, aptitude, and ability tests, as well as assessment centers, research was lacking on coaching in relation to employment interviews in normal adult populations. It is not difficult to find literature that provides suggestions and advice on how to do well in an employment interview. However, actual empirical research addressing the relationship between participation in a coaching intervention and subsequent structured interview performance was lacking. Therefore, there was a need to empirically examine the relationship of such an intervention with interview performance. This was particularly worthwhile to examine, not only in addressing promotional candidate needs, but also to contribute to practical knowledge for the field of personnel psychology.

In the first study conducted on this issue (Maurer et al., 1998), a field study was used to address the question of whether coaching is related to

higher ratings in the structured situational panel interview. The study was conducted in relation to police and fire department promotional procedures in which four different jobs were involved. This design allowed replication of the study in four separate samples. The results suggest that coaching was related to higher performance in structured situational interviews. In three of four jobs, when controlling for indicators of candidates' pre-coaching job knowledge and motivation to do well on the promotional procedures, attendance at a coaching session was significantly related to interview performance. As part of this paper, an agenda for future research was discussed, including a proposed general model of coaching process and outcome variables.

Subsequent to this study, we published a replication and extension (Maurer et al., 2001). This study improved on the prior one by including a more direct measure of motivation and also race and sex as control variables, thus somewhat enhancing confidence in the relationship between coaching and performance. This research also examined the relation of individual preparation strategies with interview performance. In regressions, not only was use of the preparation strategies provided by the Department of Human Resources positively related to interview performance, but also these strategies were related to performance above and beyond what could be accounted for by attendance at a coaching session. Perhaps, this result occurred because many of the strategies could be learned in coaching and then carried out to varying degrees independently following the coaching session. In addition, most of the strategies could be carried out without attending any coaching. Those strategies that were most strongly related to performance were participating in study groups, observing others perform in mock interviews, and obtaining tips on how to do well in interviews. This study shed some light on the specific preparatory activities that may be empirically related to success in a situational employment interview.

In addition, the research focused on the types of response strategies interviewees could use in an interview. Coaching was also associated with use of an "organization" response strategy in the interview, which was the only response strategy positively related to interview performance. Detailed analyses of the individual organization strategies revealed that organizing answers in a chronological, logical, and easy-to-follow manner, as well as using paper and pencil to write notes before giving an answer, was associated with higher performance by interviewees. In short, being well organized and thoughtful seemed to enhance performance of an interviewee. This type of approach to answering interview questions likely enhanced the completeness, interpretability, and clarity in responses, thus increasing interviewer evaluations.

Interestingly, those who engaged in preparation internal to the Department of Human Resources were more likely to report using the

organization response strategy according to the research. Thus, it appears that those who did better in the interview tended to attend coaching, engage in preparation strategies that were internally available within the department, and were very organized and thoughtful while responding during the interview. Those who were coached were more likely to use both these preparation and response strategies. Furthermore, the relationship between coaching and interview performance could be completely accounted for by use of the preparation and response strategies, and the relationship between preparation strategies and performance could be completely accounted for by use of the response strategies. It may be that coaching has an effect on performance by leading to specific types of preparation that leads to certain types of behavior during the interview: Coaching → Preparation Strategies → Response Strategies → Performance. Race and sex were generally not empirically related to the focal study variables, being almost completely unrelated to the coaching, preparation, and response strategy variables or interview performance.

In sum, although appropriate caution must be taken when interpreting these data, as is the case in any field study, it appears from the data available that the intervention had an effect on performance of interviewees and also that the research helped to identify which preparation and response strategies in the interview seemed to be associated with success.

*Goal of Achieving Results Without Negatively Influencing Interview
Psychometric Characteristics*

A final goal was to accomplish all of the goals outlined above without negatively influencing validity and reliability of interview procedures, and if possible, to enhance these psychometric characteristics. To address this issue, data from a predictive, criterion-related validation of the already content-valid situational panel interview were used (Maurer, Solamon & Lippstreu, 2003). To assess the job performance of candidates to be correlated with interview scores in the validation study, a performance appraisal instrument was designed on the basis of each of the four rank's job analysis results. Each rank's instrument included 8–10 unique dimensions based on the work behaviors defined for that rank. An example dimension for police included coordinating activities at incident scenes. In addition, each rank's performance appraisal instrument included an Overall Performance Rating Scale. A seven-point Likert-type scale with defined anchors was used for providing performance ratings on all scales. Candidates who were promoted were eligible for participation in this study. The immediate supervisor of those promoted provided performance ratings for participants of this study. A total of 146 usable instruments were returned yielding a 79% return rate.

Validity was calculated in a sample of police and fire job incumbents who had attended interview coaching prior to interviewing and who were later promoted into their current jobs ($n = 75$). Validity was also calculated in a sample of incumbents who had not attended interview coaching prior to interviewing and who were later promoted ($n = 71$). Interview scores and each of the performance rating variables were standardized within rank and within year of interview. The data showed that reliability and validity of the interview was somewhat higher in the coached sample compared with an uncoached sample. In the coached sample, interview score had significant relationships with mean supervisor rating on individual job performance dimensions ($r = .21, p < .05$) and an overall job performance rating ($r = .24, p < .05$). In contrast, interview score was not significantly related to these performance variables in the noncoached group ($r = -.07, r = -.01, ns$, respectively). A one-tailed z -test of the correlation coefficients revealed that the correlation between interview score and mean dimension performance was significantly different across groups, $z = 1.67, p < .05$. In addition, the average interrater reliability among panel members providing ratings in the interview for the coached group ($r = .91$) was significantly different from the average reliability of the noncoached group ($r = .84; z = 1.88, p < .05$).

In that study, we concluded that coaching may serve to direct attention by the interviewee to that content, which is most relevant to what the interviewer seeks, and therefore, may reduce the amount of irrelevant variance in the coached interviewees' responses. Furthermore, coached interviewees know how to more clearly present this information. This may serve to increase reliability through enhancing the ratio of true score variability to total score variability. Coached interviewees, who have a greater understanding of the measurement system and how to formulate quality responses, will be likely to stay on target and to offer pertinent information for the measurement system to a greater extent than noncoached interviewees. They will offer information that is relevant and more directly measurable by the system compared with the noncoached interviewees. By offering more information that is relevant and less that is irrelevant, there should be more true score variability (attributable to the construct being measured) and less error variance (attributable to things irrelevant to the construct being measured). Furthermore, because there is more relevant information being captured, the data should also be more valid. That is consistent with what was observed. Reliability and validity were both higher. Interestingly, this finding is not unique to this situation involving interview scores.

Outside of employment interviewing, Allalouf and Ben-Shakhar (1998) examined whether coaching affects the predictive validity of scholastic aptitude tests. A total of 366 high-school students was divided

into two randomly allocated groups, coached and uncoached. Although coaching enhanced scores on the aptitude test, it did not affect predictive validity, refuting claims that coaching reduces predictive validity. These authors also reviewed some other studies dealing with coaching for aptitude testing that found higher validity in coached samples. The authors suggested that there is more evidence to support a validity-enhancing effect than a validity-degrading effect by aptitude test coaching.

These findings are particularly important because although there has been a good deal of attention to similar topics, such as the effects of impression management or faking on psychometric characteristics of personality tests, little research has been done on the effects of interview coaching despite widespread use of interviews in selection. In sum, coaching seems to have done no harm to reliability and predictive validity, and might possibly have even provided a little help in enhancing these psychometric characteristics. It is worth noting that similar results were obtained in a laboratory study of a structured employment interview designed to measure personality characteristics (Tross & Maurer, 1999). When student interviewees were randomly assigned to different experimental conditions, coaching resulted in no harm to construct validity of the interview while increasing performance of the coached interviewees.

Although there was no randomized experimental assignment to coaching versus no-coaching conditions in the studies conducted in the city of Atlanta, confounds were statistically controlled to eliminate the influence of the characteristics that may have been distributed unevenly across the coached and uncoached groups. Two important potential confounds were controlled in the study by Maurer et al. (1998): motivation for promotion and job knowledge. In the study by Maurer et al. (2001), motivation, and also race and sex, were used as control variables. Similarly, in Maurer et al. (2003), the coached and uncoached groups were similar in composition in terms of sex, race, job experience, and job performance. In the study by Tross and Maurer (1999), the assignment to coaching conditions was randomized across conditions. Furthermore, in the study by Allalouf and Ben-Shakhar (1998), participants were randomly allocated into groups: coached and uncoached. Therefore, all of these studies together (some in the present context and some outside) provide evidence that the effects of coaching (or lack of effects on validity) cannot be attributed just to self-selection effects.

General Summary: How the Project Contributed to Practice and Science

The structured interview coaching program was developed in response to requests from promotional testing candidates. They desired more information concerning the administration of this previously mysterious

process and wanted more assistance in preparing for it. The coaching has been offered as a service for police and fire promotional testing candidates and has demonstrated consistently positive results on all occasions. Because of this success, the promotional testing program expanded to the Department of Corrections recently. The reaction to the coaching in corrections has been highly similar to the response received from police and fire promotional testing candidates.

An informal observation one could make regarding the very high degree of acceptance and positive reactions by candidates, the departments, the unions, and the community is that by coaching candidates to put their best foot forward in the promotional process, it reframed somewhat the "us versus them" mentality sometimes present in candidates in selection testing into one of being more of a partnership. That is, both the departments and the candidates had a joint interest in the procedures going smoothly. They both had an interest in having each person provided with an opportunity to demonstrate his/her job preparedness in a manner that was not influenced by factors such as misunderstanding of the type of information sought in the interview or how he/she should present relevant knowledge. This coaching process actually removed much of the prior mystery surrounding the promotional procedures. Many times, the only exposure a candidate may have to selection procedures is the time they spend taking them. In the coaching program, there was an opportunity to show the advantages of the interview used, the extent to which it was based on job-relevant information, the fact that it functioned fairly in an accurate manner, as well as how to best prepare for and respond during the interview. This provided an opportunity to influence the applicant's perception of the selection process, as well as to influence the quality of the data ultimately captured. In some respects, this was a win-win for both candidates and the departments. As one reviewer of this article pointed out, even if coaching does not help examinees perform better, so long as it does not harm the psychometric properties of tests or interviews, it is probably in the organization's best interests to provide such programs. It is likely that trainees will appreciate the effort put forth to help them. Organizations that provide such support are likely to be viewed as being more supportive, fairer, and better places to work.

This report has summarized evidence to suggest that the program has (a) provided assistance to promotion candidates in preparing for the interview and reactions to the program have been positive; (b) had an effect on performance and illustrated which preparation and response strategies in a structured interview seemed to be associated with success; and (c) provided these benefits without negatively influencing validity and reliability of interview procedures, and quite possibly, enhanced these psychometric characteristics. It should be noted that the current coaching program

content was influenced by our published research but not restricted by it. We think the research that we have published is helpful but would not argue that it is the final and definitive word regarding which strategies and behaviors will lead to success in a situational interview (or any other interview) or the effects this process will have on psychometric characteristics of the measures. Actually, the research we considered as input to the program is broader than those published studies in the literature, and it included interviews with panel members, review of the interview literature, written comments, anecdotes, other survey data, and our own observations of behavior in these interviews. We attempted to include credible and potentially useful information in the coaching and always encouraged the candidates to be the ultimate decision makers regarding what they should do in preparing for and performing in the interviews. We suspect that they put significant weight on the published research findings we report but also that they did not have "tunnel vision" regarding only those ideas.

Personnel psychology played a large role in the city of Atlanta's promotional testing success and in particular the structured interview process. The practice of personnel psychology contributed to the development and administration of the program. The science of personnel psychology led to an expansion of the interview coaching literature. We are making an effort to disseminate useful information from this ongoing project and continue to examine it from objective and empirical standpoints. We expect this to continue to be an ongoing process. To date, however, we believe the combination of science and practice led to a successful intervention that could be applied in other settings. It is our hope that this report also stimulates additional scientific research into these issues.

REFERENCES

- Allalouf A, Ben-Shakhar G. (1998). The effect of coaching on the predictive validity of scholastic aptitude tests. *Journal of Educational Measurement*, 35, 31-47.
- Anastasi A. (1981). Coaching, test sophistication, and developed abilities. *American Psychologist*, 36, 1086-1093.
- Burke M, Day D. (1986). A cumulative study of the effectiveness of managerial training. *Journal of Applied Psychology*, 71, 232-245.
- Campion M, Campion J. (1987). Evaluation of an interview skills training program in a natural field experiment. *PERSONNEL PSYCHOLOGY*, 40, 675-691.
- Cole N. (1982). The implications of coaching for ability testing. In Wigdor A, Garner W (Eds.), *Ability testing: Uses, consequences, and controversies* (pp. 389-414). Washington, DC: National Academy Press.
- Drake J. (1991). *The perfect interview: How to get the job you really want*. New York: AMACOM.
- Hellman P. (1986). *Ready, aim, you're hired!: How to job-interview successfully anytime, anywhere with anyone*. New York: AMACOM.

- Krannich C. (1995). *Interview for success: A practical guide to increasing job interviews, offers, and salaries*. Manassas Park, VA: Impact.
- Kulik J, Bangert-Drowns R, Kulik C. (1984). Effectiveness of coaching for aptitude tests. *Psychological Bulletin*, 95, 179–188.
- Latham V. (1987). Interviewee training: A review of some empirical literature. *Journal of Career Development*, 14, 96–107.
- Maurer T, Solamon J, Andrews K, Troxtel D. (2001). Interviewee coaching, preparation strategies, and response strategies in relation to performance in situational employment interviews: An extension of Maurer, Solamon, & Troxtel (1998). *Journal of Applied Psychology*, 86, 709–717.
- Maurer T, Solamon J, Lippstreu M. (2003, April). *Structured interviews: Effects of coaching interviewees on performance and validity*. Paper presented at the 18th Annual Conference of the Society for Industrial and Organizational Psychology, Orlando, FL. **Submitted for journal review.**
- Maurer T, Solamon J, Troxtel D. (1998). Relationship of coaching with performance in situational employment interviews. *Journal of Applied Psychology*, 83, 128–136.
- Miller M. (1994). *Your best foot forward: Winning strategies for the job interview*. New York: Rosen.
- Sackett P, Burris L, Ryan A. (1989). Coaching and practice effects in personnel selection. In Cooper C, Robertson I (Eds.), *International review of industrial and organizational psychology* (pp. 145–183). Chichester, NY: Wiley & Sons.
- Tross S, Maurer T. (1999, April). *Effect of interviewee coaching on structured experience-based interview processes and outcomes*. Paper presented at the 14th Annual Conference of the Society for Industrial and Organizational Psychology, Atlanta, GA.

APPENDIX A

Interview Coaching Booklet

Outline

- Introduction
- Test Day Logistics
- Background Information
- Interview Administration
- General Feedback from Previous Interview Cycles
- Research Results
- Interview Simulations
- General Interview Tips

I. Introduction (Overview of Interview and Its Administration)

- Interview Schedule
- Weighting of interview versus written exam:
- 12 interview questions per candidate.

- Each day's questions different; will assess the same KSAs for the same rank.
- Overall oral communications score given and weighted the same as three questions; process yields a 15-item test.
- Assessors will consider the following in making oral communications ratings: clarity, grammar and word usage, conciseness, completeness, professional language and demeanor, organization of the response, and eye contact.
- Hard copy of questions, notepad, and pencils will be provided to candidates.
- Panel leader will read each question to the candidate *after* the candidate has silently read the question and made any desired notes.
- Average response time for each question should be 2 to 3 minutes; some comprehensive responses could be less; "get in and get out."
- Candidates will be asked if they recognize any panel member. No one will be rated by a panel member they know.
- Interviews are videotaped "for the record." Forget about the camera being there.
- Phones, pagers, radios, and other communications devices not allowed.
- Reference materials not allowed in interview room.

II. Test Day Logistics

- Candidates report to XX
- *Candidates must show city employee picture I.D. at check-in.*
- Nine interview panels operate simultaneously.
- Each panel consists of one assessment professional and three police supervisors.
- Panel members are from outside APD and are trained regarding Atlanta procedures.
- Maximum of 72 candidates can be interviewed daily ($8 \times 9 = 72$).
- On each day, half of the candidates will report at 8:45 a.m. for the morning interviews; the other half, at 12:30 p.m. for the afternoon interviews.
- Candidates were randomly assigned to the above interview dates and times.
- Candidates will randomly assign themselves to panel and order of interview by lottery.
- Candidates will stay in the pre-interview room until called by their panel leader.
- Candidates will be escorted for restroom breaks, smoking, and so forth.

- Morning candidates will be escorted to the post-interview room immediately after their interviews and will be held there until all afternoon candidates are checked in.
- Refreshments will be provided in the pre- and post-interview rooms, but you might want to bring a snack if you think you'll get hungry.
- Park at the XX or at a neighboring lot.
- **You must report to the pre-interview room on time or face disqualification!**

III. Background Information

- Interviews can be characterized by their degree of structure
 - *Unstructured interviews* are free form, with few or no limits on the questions asked. Little consistency may exist among interviews.
 - *Semi-structured interviews* involve some structure. For example, subject areas may be defined, and sample questions may be available. Interviewers typically use much judgment (e.g., in deciding the amount of information to provide to candidates, specific questions to ask, order of the questions, and the amount and type of follow-up questioning).
 - *Atlanta structured interviews* include standard instructions read by the panel leader, predefined questions in a preset order, hard copy of questions provided to candidates, and limited follow-up questioning for which assessors are specifically trained. The process results in consistent treatment of candidates.
- A structured interview offers clear advantages
 - Interview research has shown that structured, standardized interviews tend to have greater reliability than less structured interviews. Standardization ensures that each candidate is evaluated in a consistent fashion. Without this consistency, it is impossible to evaluate the relative qualifications of candidates. With a structured interview, KSAs identified by job analysis as critical for new supervisors are assessed by means of job-related questions.
- Atlanta's structured interviews include a number of positive features
 - Questions custom-developed for APD Sergeant and Lieutenant.
 - Questions based on job analysis information provided by incumbents.
 - Detailed rating checklists and customized training provided to assessors.

Bottom line: The purpose of the interview is to gain information from candidates regarding the extent to which they possess the KSAs identified by job analysis as essential for job performance as a new supervisor.

IV. Interview Administration

- Prior to the interview, candidates will:
 - wait in the pre-interview room until their panel leader calls the code they drew
 - introduce themselves to the panel leader and provide an index card with their name and social security number
 - go with the panel leader to meet the other assessors.
- At the beginning of the interview:
 - a video camera will already be set up, to the side.
 - candidates will sit at a table, with notebook, pencils, and a copy of the questions.
 - assessors will sit across from candidates at separate table(s).
 - the panel leader will read standard instructions (See below).

The standard instructions will be similar to the following:

Good morning/afternoon. We will be conducting your structured interview today. Your name is _____ and your candidate identification number is _____. Is that correct?

The interview will consist of 12 questions that deal with work situations. I will be asking the questions. Each question describes a situation or problem, and you are asked to explain how you would handle the situation or problem. For each question, respond as if you are a Police Sergeant (Lieutenant). It is suggested that you take some time—up to 1 minute—to think about your answer and make any notes that you wish. After you have done so, please signal that you are ready to answer. I will read the question aloud, and you should then respond orally with your answer.

Answer each question completely, keeping your oral responses to about 2 or 3 minutes per question. Speak clearly and professionally. I, or any of the other panel members, may ask follow-up questions to clarify your response or obtain additional information. After each response, I will ask if you would like to add anything else before moving on.

If you do not understand a question, you may ask to have it repeated. You have been given a copy of the interview questions to refer to during the interview. Please do not write on the questions.

Because you are not to be rated by anyone you know, we would like for you to confirm that you do not know anyone on this panel.

All interviews are being videotaped to provide a complete record and to ensure standard procedures are followed.

Do you have any questions before we begin?

Please open your interview booklet, read the first question silently, and make any notes you wish on the notepad. When you are ready, look up and I will read the question aloud. Then, respond orally with your answer.

- Types of Interview Questions
 - Most will be situational (presenting a job situation and asking what you would do in response).
 - Most require an action-oriented answer (outlining the steps you would take in responding to the situation).
 - Some questions may be of a slightly different format (for example, asking what factors you would consider in a given situation).

Bottom Line: Read the question carefully before formulating your response.

V. General Feedback from Previous Interview Cycles

This section is based upon a content review of interview results from previous interview cycles. This analysis is in response to candidates desiring some kind of feedback from their interview performance. It serves as a compromise between providing no feedback and administering a complete review of individual test materials and videotapes, which has not been established in the ordinance governing promotional testing.

- Take notes and be prepared to answer questions *before* signaling that you are ready to have each question read.
- Jot down notes, not sentences and paragraphs, in preparation for answering the question.
- After reading the question, limit your time thinking and writing notes to 1 minute. Limit your time answering the question to 2 or 3 minutes.
- Do not write while the interviewer is reading the questions.
- Do not restate the question to the assessors.
- Do not look down or away excessively. Glancing at your notes is acceptable. However, spend most of your time while speaking making eye contact with each panel member.
- Use your 1 minute prior to answering each question to organize your thoughts. The goal is to provide your response clearly and in logical sequence, without halting or repeating yourself.

- Sergeant candidates: “Think like a supervisor” rather than an officer. In other words, determine the actions a supervisor should take in response to a situation rather than just those you would take as an officer.
- Lieutenant candidates: “Think like a lieutenant.” For certain questions, you may have to think more broadly than you would as a sergeant because the position is at a higher level than your current position.
- Determine the point of the question. For example, if you are asked what you would do in response to a situation, state the specific *actions* you would take rather than the factors you would consider in deciding on these actions.
- If your response includes gathering information, include all possible sources. Be creative.
- Consider and address all factors in the situation, including present circumstances through any follow-up needs.
- Think broadly. Consider actions needed to address any underlying problem that the situation indicates may exist. (Not all situations indicate such problems.) Also, consider resources not directly under your control but which you might coordinate to address the problem.
- Be explicit about what you *would* do in response to a situation. *Most* good responses include a list of actions you would take. Weaker candidates may ramble about options they would consider and their analysis of the problem. Again, make sure to focus on the point of the question. Some questions may ask for an analysis (for example, “What are your options for handling this situation?” or “How would you research the problem?”). However, most require you to describe an action-oriented solution to a problem (for example, “What would you do?”).
- Be clear and complete in your responses. Avoid vague statements such as, “I would advise the appropriate units.” Instead, in such an instance, specify which units that you would contact and make clear what you would relay to them.
- Make sure that the facts presented in the question support the actions you discuss in your response. For example, you should not take disciplinary action against an officer based solely on an allegation of misconduct.
- Consider the human side of any problem involving citizens or employees, even job-performance problems. Rather than just dictate to people and “follow the book,” consider the interpersonal aspect of the situation.
- Do not avoid taking disciplinary action, transferring employees, and so on, *when circumstances warrant*.

VI. Research Results

During a previous interview cycle, candidates were asked to complete a survey regarding such factors as motivation, preparation strategies, and response strategies. The results presented below show relationships between these factors and successful interview performance. It is suggested that candidates especially consider strategies used by past successful candidates but that they not rule out any strategy they believe will be particularly useful for them on an individual basis.

- A significant, positive relationship exists between [coaching] attendance and interview performance.
- Attending the [coaching] is related to using the preparation and response strategies. These strategies have a positive effect on interview performance above and beyond attending the [coaching].
- Motivation level is a significant predictor of interview performance.
- "Internal" preparation strategies (those likely to rely on resources and personnel within the Department) are positively related to interview performance.
- "External" preparation strategies do *not* have a positive relationship to interview performance.

- The following preparation strategies are related to success in the interview:
 - Participating in role plays.
 - Participating in study groups.
 - Talking with past interviewees.
 - Talking with colleagues who have served as assessors in other jurisdictions.
 - Talking with others knowledgeable about interviewing.
 - Thinking of and rehearsing interview questions.
 - Observing others perform in mock interviews.
 - Obtaining tips on how to succeed in an interview.

- The following response strategies are related to success in the interview:
 - Using the notepad and pencils to make notes before answering.
 - Organizing answers in a chronological, logical, and easy-to-follow manner.

VII. Interview Simulations

This section includes role-play exercises using simulated interview questions. Volunteers from the audience participate in the simulations. One person will serve as the "interviewee" for each simulation. Four people

will serve as "assessors." The simulated questions and rating guides will be distributed to everyone. This process allows candidates to become familiar with the structure of interview questions, practice answering questions, ask questions regarding the process, and gain insight regarding how assessors score candidate performance on the interview.

VIII. General Interview Tips

- Get plenty of rest prior to the interview.
- Eat a good meal (but do not overeat).
- Avoid stimulants and depressants.
- Do not drink too much liquid prior to the interview.
- Arrive in plenty of time to park and get to the pre-interview room on time.
- The panel members will take the lead in introducing themselves.
- Think before you speak; silence is acceptable while you are formulating your answers.
- Make sure you understand each question before preparing your response.
- Speak clearly, correctly, concisely, completely, professionally, and in an organized manner.
- Make eye contact with *all* of the panel members.
- Sit up in your chair.
- Try to be relaxed and confident. Nervousness can impact your performance (both your oral communications skills and the quality of your responses).
- Look your best! Most candidates wear dress uniforms.
- Answer each question completely; panel members will not guide your responses.
- Do not be concerned regarding the inclusion or exclusion of follow-up questions by the panel. Follow-up questioning simply means that a panel member needs more information to score your response (for example, the panel member might not have heard what you said or might be unsure of what you mean).
- Keep your preparation time after reading each question to about 1 minute and your oral response time to about 2 or 3 minutes. Some questions may take a little more; some, a little less.
- Review the [coaching] materials prior to the interview.

GOOD LUCK ON YOUR INTERVIEW!