

# The Use of a Structured Interview Guide in Veterinary College Admissions

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## ABSTRACT

The University of Minnesota College of Veterinary Medicine incorporated a structured behavioral interview guide in its 2004 application cycle. This article presents the challenges associated with the incorporation of the guide, the methods used to ensure appropriate training for faculty and practicing veterinarians conducting interviews, and preliminary data regarding the guide's contribution to the admissions process.

**Key words:** admissions, interview, non-technical, competency, behavioral

## INTRODUCTION

Recent studies on management and the economics of the veterinary profession highlight the need to ensure that future veterinarians have abilities beyond technical competencies; one study suggests the use of a structured behavioral interview guide during the admissions process.<sup>1-3</sup> Huffcut and Arthur categorize interviews according to their level of structure.<sup>4</sup> Unstructured interviews (level 1) impose no restrictions on the number or type of questions asked of candidates and offer no guidance on how the answers should be evaluated. More structured interviews detail the questions to be asked and provide guidelines and standards for evaluating the answers. The University of Minnesota College of Veterinary Medicine (UMNCVM) adopted an interview guide corresponding to Huffcut and Arthur's level 3 category of interview structure<sup>4</sup> for its admissions cycle for the entering class of 2004. The guide allows interviewers to select questions from a limited menu covering specifically defined domains (competencies) and provides detailed behavioral standards for evaluating candidates' answers (see Box 1). The implementation of the structured interview was a significant change in the admissions process, which had not used interviews for almost 30 years. Unstructured interviews were used prior to 1975, but their use was discontinued for a variety of reasons, including the faculty time required and concerns about the validity and reliability of interviews for which there were no agreed-upon criteria or standards. Before the 2004 admissions cycle, the applicant evaluation process was similar to those of many other schools (see Box 2).

Incorporating the structured interview guide required the consent of the admissions committee and the faculty. Steps taken to inform the faculty about the need for interviews and to introduce best practices in terms of interviewing styles and structured interviews included discussions focused on the state of the veterinary profession and a presentation on the non-technical competency study by its principal investigator.<sup>3</sup> The results of a pilot study, consisting of two behavior-based questions incorporated into the college's 2002 supplemental application form, further

increased confidence in the concept. One of the questions was the following:

Entrepreneurship: Describe for us the time you displayed the most initiative and persistence to meet an important goal. Let us know: 1) What was the goal and what made it important, 2) The obstacles you had to overcome, 3) What you did to demonstrate persistence and initiative, 4) The outcome, whether you met your goal, and if not, why?

Members of the admissions committee believed that applicants' responses to these questions provided more information about their suitability than responses to previous questions. A subcommittee was formed to investigate the possibility of adopting the interview guide, with veterinarians from outside the university—representing small-animal practice, large-animal practice, and industry—invited to participate. The subcommittee subsequently made a recommendation to the full committee to adopt the interview guide. The admissions committee accepted the recommendation and forwarded it to the faculty, where it was approved, thus changing the process of evaluating applicants.

The admissions committee determined that the structured interview should be weighted heavily, in order to justify the faculty time required to conduct and score it. The committee believed that the interview would be seen as ineffective if applicants with very high academic scores were admitted despite low interview scores. In an effort to address this concern, a minimum academic score was established to determine which students would receive further consideration. All applicants who met that minimum standard were given equal consideration in the rest of the process. Interviews were scheduled with applicants as part of a daylong program designed to give them an opportunity to learn about the professional educational program and meet with student representatives and faculty. Non-academic measures (knowledge of professional goals, maturity, and reliability) were considered, as in previous years, and were weighted equally with the interview score (see Box 3).

<b>BOX 1: NON-TECHNICAL COMPETENCIES</b>	
Builds relationships	
Acts autonomously and confidently	
Drives for results	
Demonstrates integrity	
Pursues development	
Demonstrates adaptability and resilience	
Communicates effectively	
Motivates others	
Influences others	
Coaches and develops others	
Business oriented	
Uses sound judgment	
Thinks innovatively	

Adapted with permission from *Nontechnical competencies underlying career success as a veterinarian*.<sup>3</sup>

<b>BOX 2: PRIOR MEASURES OF EVALUATION OF APPLICANTS FOR ADMISSION</b>	
<b>Academic Measures</b>	70 points
Grade-point average in required courses	
Grade-point average in recent courses	
Graduate Record Examination score	
<b>Non-academic Measures</b>	40 points
Knowledge of profession and goals	
Maturity and reliability	
2 Essay questions	

Applicant rankings were based on the total score of the non-academic measures and the interview.

### RECRUITING AND TRAINING INTERVIEWERS

The admissions committee decided to use pairs of interviewers, both because panel interviews increase the validity and reliability of interviews and because this practice reflected the methods of the majority of veterinary schools using interviews at the time.<sup>5,6</sup> Approximately 200 interviews would be required to select 90 applicants for admission and create a suitable list of alternates. The committee determined that 20 interviewers should be recruited, so that the time required of each individual would not be excessive. Faculty members were initially recruited based on an expressed interest in the interview process. An age- and gender-balanced mix of basic scientists and clinical scientists with small- and large-animal perspectives was invited, to ensure broad representation. Staff from

<b>BOX 3: REVISED METHOD OF EVALUATING APPLICANTS FOR ADMISSION</b>	
<b>Hurdle 1: Academic Measures</b>	
<ul style="list-style-type: none"> <li>• Grade-point average in required courses</li> <li>• Grade-point average in recent courses</li> <li>• Graduate Record Examination score                             <ul style="list-style-type: none"> <li>• Those below not considered</li> <li>• Those above equalized</li> </ul> </li> </ul>	
<b>Hurdle 2: Non-academic Measures</b>	50 points
<ul style="list-style-type: none"> <li>• Knowledge of profession and goals</li> <li>• Maturity and reliability</li> </ul>	
<b>Hurdle 3: Structured Interview</b>	50 points

the academic and student affairs offices were also invited to participate.

Interviewer training is crucial to the validity and reliability of interviews.<sup>7,8</sup> Interviewers at UMNCVM were invited to a daylong training session; a follow-up session was held for those unable to attend the first session. Components of the training session included interview preparation; how to open, structure, and close an interview; methods of information gathering; and scoring. Lectures, discussion, and videotapes depicting good and bad examples of interviews were used. Interviewers were given opportunities to practice behavioral interview techniques using the structured interview guide; as a follow-up, they conducted two mock interviews with volunteer students from the current first-year class. Written materials on conducting interviews and the use of the interview guide were given to interviewers for review prior to each interview.

### INTERVIEW STRUCTURE

Each interview was conducted by a pair of interviewers selected based on their availability. Interviews were scheduled for one hour, with 30 minutes between interviews for review of notes and scoring. The interview guide listed 10 competencies; interviewers chose one, two, or all of a list of three questions to probe each competency. In order to reduce interviewer bias and increase reliability, interviewers were given only the applicant's name and the name of the undergraduate institution he or she had attended.<sup>9</sup> The majority of the information in the written application (personal statement, letters of reference, academic scores) had been scored during prior phases of the admissions process by committee members. The structured interview guide contained experience-based questions (eliciting information about the applicant's background), opinion-based questions (eliciting the applicant's self-perception), and behavior-based questions (focusing on specific past events). Behavior-based questions made up the bulk of the interview guide (80%). The remainder consisted of experience-based questions (10%) and opinion-based questions (10%).

**BOX 4: SAMPLE OF BEHAVIORAL ANCHORS FOR A COMPETENCY**

**Competency: Focuses on Clients**

Below Average		Average	Above Average	
1	2	3	4	5
Conveys a superficial understanding of clients' requirements, resulting in purely transactional offerings that fail to add value			Ensures a complete and accurate understanding of clients' requirements in order to provide value-added solutions.	
Offers similar solutions to all clients, regardless of their unique individual needs.			Responds effectively to the unique needs of individual clients, adapting solutions and providing unique and/or flexible options.	
Is unusually slow to respond to clients' requests, inquiries, or problems.			Responds with a strong sense of urgency and care to client requests, inquiries, and problems, taking comprehensive action to resolve them.	
Sets mediocre client service standards; holds staff loosely accountable for resolving client issues.			Sets high client service standards; holds people tightly accountable for effectively resolving client issues.	
Misses opportunities to follow up with clients to ensure problems are solved.			Takes responsibility to follow up and ensure client needs and expectations are satisfied.	

Interviewers were instructed to use their training and to follow the interview guide; they were encouraged to use follow-up questions to prompt applicants to fully describe a situation they had faced (a specific example of a circumstance they had faced), the behaviors they exhibited (what they did), and the outcome (the result of the behavior). Examples of follow-up questions included "Tell me more," "What did you do next?" and "How did he respond?" Interviewers were instructed to take brief notes during the interview for later scoring.

**CLOSING AND SCORING THE INTERVIEW**

Interviewers were instructed to answer questions and to inform the applicant about the institution (i.e., conduct their recruiting) before closing each interview. The time for these tasks was constrained to approximately five minutes, both in order to keep on schedule and because recruiting and answering applicants' questions were done as a part of a welcome program, sometimes before and sometimes after the interview. Interviewers were instructed to score each applicant after he or she left the interview room.

Each competency described in the interview guide was accompanied by an evaluation guide, with examples of above-average and below-average responses corresponding to a scale of 1 to 5. Examples were included because in the absence of evaluation standards, interviewers insert their own biases into the scoring of answers.<sup>10,11</sup> An example of behavioral anchors used to score responses to a behavior-based question for a competency is shown in Box 4. To maximize the reliability of the rating, each interviewer scored each competency independently; the pair then discussed their scores and came to a consensus for each competency for that applicant. This practice created a process for interviewers to challenge each other to follow the evaluation guide more closely. The optimal method for

scoring applicants using panel interviews continues to be debated.<sup>12-14</sup>

**EVALUATING THE PROCESS**

Feedback was solicited from applicants (both those offered admission and those denied admission) and interviewers using an anonymous written survey. Surveys, including an introductory letter from one of the authors requesting participation and a postage-paid return envelope, were mailed in June to all applicants. Respondents completed the survey by circling their responses and returned the survey to the second author to further ensure anonymity; 101 of 180 surveys were returned, representing a response rate of 56%. Interviewers received their surveys through campus mail, with an introductory letter from one author and a postage-paid envelope, and were asked to return their surveys to the second author; 16 of 21 interviewers (76%) returned their surveys within the allotted time frame.

Demographic information (age, gender, and in-state/out-of-state resident status) was collected from applicants. Applicants and interviewers were asked to respond to 11 and 10 statements, respectively, using a five-point scale ranging from "strongly disagree" to "strongly agree." The statements and the means and standard deviations of the responses are given in Tables 1 and 2. Responses are further categorized according to whether the respondent agreed with a statement (circled 4 or 5 on the survey), disagreed with it (circled 1 or 2), or was neutral (circled 3; see Tables 3 and 4).

More than 66% of responding applicants agreed that the interview was relevant (item 1), straightforward (item 6), uncomplicated (item 9), and easy to understand (item 7). Similar percentages felt that they were able to describe their skills (item 2), that interviewers were prepared and respected them (items 5 and 10), and that they had sufficient

**Table 1: Applicant survey responses**

Item #	Statement	Mean	SD
1	The interview focused on relevant topics.	3.74	1.09
2	I felt I could describe my skills and abilities during the interview.	3.67	1.23
3	The interview felt more like a conversation than an interview.	3.41	1.39
4	I have a better understanding of the program I applied for because of the interview.	2.69	1.18
5	The interviewers seemed prepared for me.	4.10	0.83
6	The questions asked by the interviewers seemed straightforward.	3.73	1.13
7	The interview questions were easy to understand.	3.81	1.06
8	I felt I had the time I needed to answer the interview questions.	4.21	0.92
9	The interview questions were too complicated.	2.24	1.01
10	I felt respected by the interviewers.	4.24	0.93
11	I was able to get a clear understanding of the veterinary program at Minnesota during the time I spent at the College of Veterinary Medicine.	3.93	0.98

time to answer questions (item 8). Applicants largely disagreed that they understood the program better as a result of the interview (item 4), although approximately 75% agreed that they obtained a good understanding of the veterinary program during their visit to the university.

Interviewers were enthusiastic about the process. Eighty-one percent indicated that the interview guide was easy to follow (item 3) and easy to use (item 7). Respondents also felt that they could follow and use the interview process (item 1), that the training helped them (item 4), that they were prepared for the interview (item 2), and that the process helped them understand the candidate better (item 6). Approximately 90% indicated that they would continue using this style of interviewing (item 10). Positive interviewer reaction to the process and to the training provided is particularly important, since interviewing is a volunteer activity.

Responding interviewers did note some difficulty with the evaluation/response guidelines. Although a majority agreed that the evaluation guidelines made it easy to evaluate candidate's answers (item 9), 38% gave a neutral response. This may indicate issues with the specificity or the focus of the evaluation guidelines or difficulties with their use.

## DISCUSSION

Questions used in veterinary admissions interviews are usually formulated during the interview rather than

**Table 2: Interviewer survey responses**

Item #	Statement	Mean	SD
1	I was able to follow the steps recommended in the interview training.	4.38	0.50
2	I felt prepared to conduct my interview.	4.44	0.51
3	The interview guide was easy to follow.	4.19	0.75
4	The interview training I received helped me conduct a better interview.	4.38	0.62
5	I felt prepared for the things I encountered in my interview	4.06	0.77
6	The structured questions helped me understand my candidate better.	4.50	0.52
7	The structured behavioral questions were easy to use.	4.19	0.91
8	The demands of the interview are unrealistic.	2.00	0.97
9	The evaluation guidelines made it easy to assess my candidate's answers.	3.56	0.96
10	I'll continue using this style of interviewing.	4.19	0.66

prepared in advance and are most frequently experience-based, opinion-based, situational, and factual-knowledge-based questions.<sup>5</sup> Behavior-based questions are generally not included. Interviewers receive limited training, and interviews are typically of low to moderate structure. These practices are inferior, based on the findings of research on the validity and reliability of interviews.<sup>15</sup> Improved practices would include questions based on an analysis of the competencies required for success, the use of appropriate question types, structured interview content and processes, training, and standardized scoring. The structured interview guide used by UMNCVM is based on an analysis of the skills of successful veterinarians;<sup>3</sup> the question types follow the recommendations of selection experts by limiting experience-based questions to less than 30% and opinion-based questions to 10% and by replacing situational questions with behavior-based questions (60% or more). Interviewers were trained and participated in mock interviews to practice their skills. Finally, the interview guide contains structured questions and standardized scoring guidelines for each competency.

Both applicants and interviewers responded positively to the interview process. Applicants found the interview relevant, straightforward, uncomplicated, and easy to understand. These responses, from applicants who were offered admission as well as those who were not, indicate that structured behavioral interview questions were perceived positively. Interviewers agreed that the interview guide was easy to follow and use and that training helped them conduct better interviews. Two additional survey findings are of note. First, applicants felt that the interview did not give them a better understanding of the veterinary program but that their day at the college did. The job of introducing applicants to the college and orienting them to the program was left to the welcome program; interviewers

**Table 3: Applicant responses**

Item #	Statement	% Agree (4/5)	% Neutral (3)	% Disagree (1/2)
1	The interview focused on relevant topics.	69	12	18
2	I felt I could describe my skills and abilities during the interview.	67	13	20
3	The interview felt more like a conversation than an interview.	56	10	34
4	I have a better understanding of the program I applied for because of the interview.	27	25	48
5	The interviewers seemed prepared for me.	84	12	4
6	The questions asked by the interviewers seemed straightforward.	66	18	16
7	The interview questions were easy to understand.	73	10	17
8	I felt I had the time I needed to answer the interview questions.	86	7	7
9	The interview questions were too complicated.	12	20	67
10	I felt respected by the interviewers.	86	7	7
11	I was able to get a clear understanding of the veterinary program at Minnesota during the time I spent at the College of Veterinary Medicine.	72	22	6

**Table 4: Interviewer responses**

Item #	Statement	% Agree (4/5)	% Neutral (3)	% Disagree (1/2)
1	I was able to follow the steps recommended in the interview training.	100	0	0
2	I felt prepared to conduct my interview.	100	0	0
3	The interview guide was easy to follow.	81	19	0
4	The interview training I received helped me conduct a better interview.	94	6	0
5	I felt prepared for the things I encountered in my interview	88	6	6
6	The structured questions helped me understand my candidate better.	100	0	0
7	The structured behavioral questions were easy to use.	81	13	6
8	The demands of the interview are unrealistic.	13	6	81
9	The evaluation guidelines made it easy to assess my candidate's answers.	50	38.5	13.5
10	I'll continue using this style of interviewing.	87	13	0

were held to the interview protocol, and they were encouraged to spend as much time as possible probing applicants' responses to questions. Second, while a majority of interviewers found the evaluation guidelines helpful for assessing an applicant's answers, a large proportion of interviewers were neutral with respect to the guidelines.

UMNCVM's use of structured interviews in the admissions process has continued since the 2004 application cycle with little to no modification.

### CONCLUSION

Concern has been expressed about the process used to select our future colleagues.<sup>16,17</sup> The use of structured interviews that include behavior-based questions based on a job analysis could significantly increase the likelihood of selecting individuals with the skills, knowledge, attitudes, and aptitude that predict success.<sup>7,12</sup> The UMNCVM is

currently collecting information on the non-technical competency performance of students selected under this admissions process as well as on one class of students selected under the old admissions process.

### REFERENCES

- 1 Brown JP, Silverman JD. The current and future market for veterinarians and veterinary medical services in the United States. *J Am Vet Med Assoc* 215:161-183, 1999.
- 2 Cron WL, Slocum JV, Goodnight DB, Volk JO. Executive summary of the Brakke Management and Behavior Study. *J Am Vet Med Assoc* 217:332-338, 2000.
- 3 Lewis RE, Klausner JS. Nontechnical competencies underlying career success as a veterinarian. *J Am Vet Med Assoc* 222:1690-1696, 2003.

- 4 Huffcut AI, Arthur W. Hunter and Hunter (1984) revisited: interview validity for entry-level jobs. *J Appl Psychol* 79:184–190, 1994.
- 5 Conway JM, Jako RA, Goodman, DF. A meta-analysis of interrater and internal consistency reliability of selection interviews. *J Appl Psychol* 80:565–579, 1995.
- 6 Turnwald GH, Spafford MM, Bohr JD. Veterinary school admission interviews, part 2: survey of North American schools. *J Vet Med Educ* 28:122–130, 2001.
- 7 Champion MA, Pursell E, Brown B. Structured interviewing: raising the psychometric properties of the employment interview. *Pers Psychol* 49:25–43, 1988.
- 8 Conway J, Penno G. Comparing structured interview question types: construct validity and applicant reactions. *J Bus Psychol* 13:485–505, 1999.
- 9 Dipboye RL, Fontenelle GA, Garner K. Effects of previewing the application on interview process and outcomes. *J Appl Psychol* 69:118–128, 1984.
- 10 Morris JG. The value and role of the interview in the student admissions process: a review. *Med Teach* 21:473–481, 1999.
- 11 Kelman EG, Canger S. Validity of interviews for admissions evaluation. *J Vet Med Educ* 21:44–46, 1994.
- 12 Champion M, Palmer D, Champion J. A review of structure in the selection interview. *Pers Psychol* 50:655–702, 1997.
- 13 Pulakos E, Schmitt N. An evaluation of two strategies for reducing adverse impact and their effects on criterion-related validity. *Human Perf* 9:241–258, 1996.
- 14 Dreher GF, Ash RA, Hancock P. The role of the traditional research design in underestimating the validity of the interview. *Pers Psychol* 41:315–328, 1988.
- 15 Lewis RE, Walsum KL, Spafford MM, Edwards JC, Turnwald GH. Veterinary school admission interviews, part 3: strategies for increasing interview validity. *J Vet Med Educ* 21:128–134, 2004.
- 16 Chadderdon LM, King LJ, Lloyd JW. The skills, knowledge, aptitudes, and attitudes of successful veterinarians: a summary of presentations to the NCVEI subgroup (Brook Lodge, Augusta, Michigan, December 4–6, 2000). *J Vet Med Educ* 28:28–30, 2001.
- 17 Lloyd JW, King LJ, Klausner JS, Harris D. National workshop on core competencies for success in the veterinary profession. *J Vet Med Educ* 30:280–284, 2003.

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