

Oral Examinations: Are they worthwhile or not?

Dr. Helen Keates
The University of Queensland
<h.keates@uq.edu.au>

Most educators accept that assessment drives learning. Thus we have the responsibility of making our assessment tasks authentic and representative of the skills we hope to engender in our students. In the five year Veterinary Science program, The University of Queensland School of Veterinary Science runs oral examinations at the end of both third and fifth years as a way of assessing a student's ability to integrate information, reason and clearly articulate their thoughts. Most students see these examinations as daunting experiences. They feel much more exposed than in a written examination and are anxious that they will not be able to 'think on their feet'. Are oral examinations worth the investment of time and effort of staff and the student anxiety? Are we really getting the answers we hope for? Is this really a powerful tool to drive learning?

Teaching to produce veterinarians: Who calls the shots?

Being aware of stakeholder expectations facilitates development and implementation of any assessment tool (Fuentelba, 2011). Firstly, we must satisfy the profession. Practitioners want employable graduates. The professional registration boards rely on the Universities to produce competent graduates. Graduate attributes are clearly defined. Secondly, the universities want student success in their programs as well as high graduate employment rates. Thirdly, the veterinary schools take very seriously the responsibility of producing a good product. Lastly and very importantly, the students expect their time as a student to be a positive experience and that they will be competent to practice.

What makes a successful veterinarian?

- Sound knowledge base
- Sound scientific understanding eg physiology, biochemistry etc.
- Good communication skills (with colleagues, practice staff, clients)
- Acceptance of the need to continue their education. What we present is the 'tip of the iceberg'. Graduation is the beginning of learning to be a practitioner.
- *Critical thinking, problem solving. These are interdisciplinary requirements for professional success.* This means the ability to 'see' not just 'look', the ability to think 'out of the box'. This is right up at the top of Blooms taxonomy eg justifying opinions, decisions, course of action', 'developing new ways of looking at things'. Memorising content just doesn't cut it.

Many a man fails as an original thinker simply because his memory is too good." (Nietzsche)

What is required to ensure our graduates can think critically?

- Teachers with the ability to facilitate deep learning and to demonstrate how to use their own deep understanding to solve new and complex problems.
- Self-driven students – no passengers

What has this to do with assessment?

There are several steps common to designing a course. We must ask three questions:

- What are we aiming to achieve? What are the learning objectives?
- What learning activities will facilitate the achievement of these objectives?
- How do we know if we've achieved what we set out to achieve? Assessment.

These are all components of 'powerful teaching'. To change the outcome, change the assessment. This appears to hold true for tertiary students in whom there is no desire to please the lecturer. Many focus on what do they have to do to pass and earn their licence to practice. We must be sure the assessment will tell us what we want to know about the student's development as a critical thinker.

If I take a final year student and ask them in a written exam to list the differential diagnoses of hind limb lameness in the dog – they can do this by simple rote learning. This is the lowest level of Bloom's Taxonomy's six levels of thinking.

If I ask them to discuss hind limb lameness in the dog – that's a step closer to what I want. It requires a discussion of history, diagnostic tests, possible diagnoses etc. Still in a written exam – still isolated with no interaction.

What I really want to know is what they will do in the first week in practice when a dog is presented limping on one hind limb. How can I find this out? This is where the oral exam comes in. The examiner can pretend to be the owner. The student is required to elicit the history of the lameness, intercurrent disease, etc. They can then develop a diagnostic plan – supported by radiographs, blood tests etc. Finally they can discuss treatment options as if they were talking to the owner. This sounds ideal.

The School of Veterinary Science at The University of Queensland has a 5 year program for Veterinary Science Students. Years 1 – 4 have a combination of formal lectures, tutorials, laboratory-based practical classes and many practical classes that involve handling of animals. Year 5 is clinical work only. The students work as junior colleagues within the teaching hospitals. These are clinics that are open to the public.

So, how do we assess students in the Veterinary Science program?

The first 4 years have a variety of assessment types – written papers, multiple choice questions, practical exams, assignments, presentations, OSCE's (Objective Structured Clinical Exams). There are two animal handling 'hurdle' assessments (years 1 & 3). There is a written integration exam at the end of fourth year, in which the students are presented with clinical cases to develop.

Oral exams are held at the end of third and fifth years. They have mandatory pass status.

Why oral examinations? Why not stick with written examinations?

Firstly, oral exams have a long history. They are traditional in some disciplines, some 'old' universities. In many countries, the final assessment of a doctoral thesis is a dissertation which must be rigorously defended before a panel of discipline experts. However, tradition is not enough justification!

The big issues

Authenticity

Oral exams are seen by many to be more representative than written assessment tasks of the professional discipline that candidates prepare for. This has been demonstrated For Veterinary students, they are meant to represent the face-to-face interaction between veterinarian and client. A vet must be able to communicate clearly with other vets and with clients ie must have discipline specific as well as lay language. This can be demonstrated in an oral exam.

The examiner should be able to assess whether the student has met following learning objectives:

- Demonstrate effective communication with colleagues using ... verbal unambiguous, professional vocabulary to convey technical information in a concise way including....
-communicating with clients in a professional and easily-understood style, presenting information on cost of services/ and writing comprehensive discharge instructions....

Validity

‘Assessment is valid when it allows students to fully demonstrate their knowledge, skill and values in relation to the course they are studying.’ Joughin, 2010

- Face validity: Does it seem to test what you want? Determining face validity requires ongoing discussion between examiners and canvassing of student opinion.
- Content validity: If we consider content to mean facts a student should know, then a 20 minute oral exam is not as effective as longer written exams (essay, short answer, MCQ). However, if we decide to examine process, then oral exams give the examiner a chance to assess how a student will, for example, manage a case. Content can be a secondary consideration – students need content to demonstrate process.
- Construct validity: Construct validity refers to the overarching qualities we expect in a successful candidate. These are defined in the University’s graduate attributes, professional and individual objectives. Eg critical thinking, problem solving, ethical behaviour.
- Concurrent validity: What of the student who is graded very highly in their clinical performance in the hospital, but fails the oral exam? This is poor concurrent validity. Which assessment is valid?

Reliability

With written exams, we need to ask questions such as do I mark consistently? Is the paper I mark at 7.00 PM considered exactly as the one I mark at 1.00 AM. With oral exams, further sources of unreliability are introduced eg do expectations change as we change examiners? One of the biggest sources of unreliability we face comes from the need to change the questions. We try to establish banks of questions of equivalent difficulty. This is partly achievable, but only if clinical process is evaluated rather than content.

Most of the learning activities for final year students are clinic based i.e. reliant on the cases that present in the time a student is in the clinic. There is no set content. Each student's exposure to cases is unique. This is a problem if we are expecting knowledge of particular presentations, but is it a problem if we are looking at how a student will approach a case? A logical approach should win every time! (As long as the examiners are in agreement over what is to be examined.)

The evils of Facebook

Facebook became an annoying presence in about 2003. Soon after each student left the examination room, the details of their exam appeared on Facebook. 100 students, 5 oral exams, two cases per exam – some repetition is inevitable. Towards the end of the examination week, students were well versed on what questions were likely. In 2014, students were corralled in groups of six i) to limit the numbers of questions required and ii) to prevent students from 'sharing' their questions with others yet to be examined. Each group of six were given the same questions. This will also allow some judgement to be made as to the relative difficulty of questions.

Ways to increase reliability

All of these are costly in terms of time and money.

- Use multiple case scenarios
- Multiple examiners
- Training of examiners*
- Moderation of questions – before and after exams*
- Develop a rubric or marking guide. This requires examiner collaboration.*
- Model answers? Does this defeat the purpose of the oral exam? Some students may take a valid but unexpected approach to a question – prepared answers do not allow the examiner to pursue student lead.

Fairness

Do students who are equivalent in terms of knowledge, critical reasoning skills and problem solving do equally well in an oral exam?

One major advantage of oral exams is that they give the candidate and the examiner to clarify what they mean. A student can ask for clarification of the question, the examiner can ask that the candidate elaborate on their meaning. Huxam *et al*, 2010 concluded that oral assessments in a group of biology students may be more inclusive than written.

Can we guarantee absence of bias? Bias takes many forms.

- There can be issues of gender, ethnicity, age, class.
- For an internal examiner, previous contact with a student may affect assessment, positively or negatively.
- Questions may favour one group of students over another. This may be determined by individual experience in the clinics.
- English proficiency can be a real problem especially in oral exams for overseas students. While oral exams allow clarification of questions and answers, many of these students are understandably anxious that their communications skills will limit their performance.

Anxiety

Most students are anxious when faced with an oral exam. Occasionally, a student will be effectively unable to respond. Because of this, 'resit exams' are offered with different examiners.

Our experience

Most examiners (22 examiners, 5 disciplines in the 2014 exams) agree that this style of examination is valid and represents a powerful assessment tool for the students about to graduate and enter the profession. Considerations:

- Only one examiner was external and able to provide some benchmarking.
- Examiner expectations were highly individual. This affected validity, reliability and fairness.
- The marking rubric circulated before the exams had poor acceptance by some examiners.
- All exams were recorded and many exams were revisited to allow a judgement, mainly on fairness.
- Some students reported the perception that they were treated unfairly.
- Most students found the experience affirming and worthwhile.
- Most of the examiners were clinicians and therefore did not see cases when they were examining. This resulted in significant loss of revenue making the exams very costly.

Future plans

Most staff and students see this as meaningful assessment that helps to focus the students on attaining skills necessary for veterinary practice. Oral exams are seen as having powerful influence over the way in which students develop in their final, clinical year. There a need to develop robust marking schemes and to align examiners expectations of the candidates.

References

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