

## An Insider's View of Farming for Outsiders!

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### Introduction

Integration of practical and theoretical knowledge with communication skills is a key part of development for a veterinary student. Final year students at the Royal Veterinary College (RVC), University of London, are taught in small groups in a role play called the 'Simulated Fertility Visit' (Figure 1). This is designed to represent a typical fertility visit to a dairy farm. During the scenarios, a member of staff facilitates the tutorial and plays the role of the farmer while students adopt the role of the vet. A virtual reality simulator, the Haptic cow,<sup>1</sup> is used to allow students to palpate the bovine reproductive tract. The simulator has been programmed to represent cows at different stages of pregnancy and with common fertility problems. In each scenario, the farmer gives a brief description of the cow e.g. "This one's a PD" or "I've not seen her (*bulling*)". The 'vet' then takes a more detailed history, palpates the simulation, makes a diagnosis and suggests treatment options. The student ('vet') is able to practise communication skills, palpation of the bovine reproductive tract and vertical integration of knowledge. A valuable component of the exercise is that mistakes carry no serious consequences. Therefore high stakes situations, particularly associated with diagnosing pregnancy, can be practised with the option to 'roll back' and replay the scenario if necessary.



Figure 1. The 'Simulated Fertility Visit': A role play tutorial representing a routine fertility visit to a dairy farm. Students take turns to adopt the role of the 'vet' and palpate the Haptic Cow while dealing with the farmer (played by a member of staff).

Role play is used widely in medical education<sup>2</sup> but is a relatively new addition to veterinary curricula.<sup>3,4</sup> Recent work with medical role play has shown that providing actors with extra information particularly from patients is beneficial and improves the reality of the scenarios.<sup>5</sup> Currently the 'Simulated Fertility Visit' tutorial has an experienced farm animal vet in twin roles: facilitating the tutorial and acting the part of the farmer. We planned, as an alternative, to split the roles with a member of staff or a peer tutor (student trained to facilitate) running the tutorial and an actor as the farmer. However, it became apparent that it was going to be challenging in this context for most actors to play the role of the farmer convincingly. This was partly because few come from a farming background or have even been on a farm and their insight into farming and farmer roles is limited. Also, the 'Simulated Fertility Visit' tutorial depends on knowledgeable responses to the students beyond that normally required in communication skills scenarios. Therefore, the aim of this project was to improve the realism of the tutorial by developing a resource for actors that will encourage and enable them to

'see through the farmer's eyes' and will provide specific information about routine fertility visits.

## **Materials and Methods**

### **Interviewing Actors**

Actors who had experience playing the farmer in the standard veterinary communication skills classes were interviewed. They were asked how they prepared for farmer roles, where they researched information about the farming industry, and if they had any first-hand farming experience. We then discussed the development of a computer aided learning (CAL) package to help actors better prepare for farm animal scenarios and, in particular, for the 'Simulated Fertility Visit' tutorial. The content and the means of conveying the information e.g. text, video, interactive components, scripts, were also discussed.

### **Gathering Information to Develop the Computer Aided Learning (CAL) package**

Insight into farming and farmer roles was provided from interviews with, and a short survey sent to, dairy farmers from the college's first opinion practice. They were asked their views and concerns about the UK farming industry, their expectations of the vet at a routine visit, and what they looked for and valued in their vet.

A routine fertility visit was filmed with an experienced vet on one of the practice farms. The video footage was edited to provide a set of short clips covering the common cases, which also encapsulated key aspects of a fertility visit and demonstrated farmer-vet interaction.

A questionnaire was sent to vets in different regions of the UK to collect a list of words and phrases for a dictionary of common farming terms. They were asked to focus primarily, but not exclusively, on bovine reproduction and to provide a definition of each word or phrase. They were also asked for local colloquial expressions, which the actors might want to use in certain scenarios.

### **Designing the CAL package**

The information obtained was incorporated into a CAL package 'An Insider's View of Farming for Outsiders' (Figure 2). The package contained six sections:

- *Welcome*: An introduction to the package
- *Background*: An overview of routine fertility visits to dairy farms
- *The Farmer*: A profile of the farmer and some expectations of the vet visit
- *The Visit*: An overview of a routine fertility visit followed by a subsection for each scenario e.g. pregnancy diagnosis (PD), not seen bulling, post-calving check, "While you're here...", which included a typical history and a video clip of an on-farm example
- *Dictionary*: A selection of farming and colloquial terms
- *Script*: A complete transcript of the 'Simulated Fertility Visit' with links to videos of each scenario used in the tutorial.



Figure 2. A 'page' from the Computer Aided Learning (CAL) package: 'An Insider's View of Farming for Outsiders'. The links at the top give access to sections that contain various resources including video clips, a dictionary of farming terms and the script for the role play.

### Evaluation of the CAL Package

Actors were asked to evaluate the CAL package and then discussed it with a member of the project team. They were required to work through each section and to note down any problems navigating through the program or understanding the content. They were also asked to comment on the presentation of information, how useful they felt it would be as a resource to help them prepare for the farmer role play, and to suggest any areas for improvement. The package was also shown to staff and evaluated by a group of final year students to help determine if it would be useful to students and, if so, at which point/s in the curriculum.

### Results

The interviews with actors at the beginning of the project indicated that some additional help when preparing for the role of the farmer in the 'Simulated Fertility Visit' tutorial would be useful. A CAL package 'An Insider's View of Farming for Outsiders' was produced incorporating information gathered from farmers and vets, which was complemented with videos taken on-farm and during the tutorial.

Evaluation of the package by actors indicated that it would help them prepare for the role of a farmer both in the tutorial and in other communication skills classes. When asked to comment on the value of each section of the package, the actors found the videos particularly informative. Areas that needed further clarification were identified and the package content and presentation were modified accordingly.

The final year students indicated that the package would be a useful resource if made available in 3<sup>rd</sup> year and used in preparation for EMS (extramural studies work placements). Students also suggested having a 'history building' exercise. Consequently, a further feature

was added to *The Visit* section. For each scenario students could 'drag' a question, e.g. "When was she served?" from a list and 'drop' it into a scenario box for example, 'The PD'. Correct answers remained in the scenario box whereas incorrect answers returned to the list and an explanation was provided.

A further modification was made in the *Script* section at the request of staff. They suggested that this section should only be accessible to the actors and therefore it was password protected. Staff did not want students to memorise the scenarios prior to involvement in the role play as spontaneity and the 'need to think on your feet' were important and valuable aspects of the tutorial experience.

## Conclusions

Role play is a valuable way for students to prepare for veterinary practice and in the context of the 'Simulated Fertility Visit' provides training that allows integration of knowledge, practical skills and communication. However, to improve realism, which in turn will help the students feel more immersed in their role as the vet, a training resource was needed for those playing the farmer. By developing a CAL package, 'An Insider's View of Farming for Outsiders', we have been able to provide a repository of useful information about farming, the routine fertility visit, and have given the actors a 'farmer's eye view'. We now plan to start using actors in the tutorial and to evaluate the effectiveness with students.

There are also likely benefits of giving students access to the CAL package, especially those with limited experience on farms. Therefore, the resource is being made available on one of the college's websites and DVD for use by actors and as a source of information for students.

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