

Teaching veterinary students pig medicine - podcasts as supplemental teaching material

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Introduction

Interest in working with farm animals has been declining among veterinary students in a number of countries (Sans et al., 2011; Ventura et al., 2021). One of the reasons is that fewer students are in contact with farming (Sans et al., 2011). They have personal contact with pets and horses and often have this as their interest in respect of what they wish to work with after their studies. However, there is still a need for veterinarians who wish to work with farm animals including pigs, and there is a concern of a future shortage of large animal veterinarians (Gwinner et al., 2006). Early active learning with visits to farms and veterinarians was reported to impact knowledge and perception of large animal medicine (Foster et al., 2018). Similar exposure to large animal practicing veterinarians was reported as important and a recommendation in another study (Lenarduzzi et al., 2009). In the veterinary curriculum at University of Copenhagen, Pig medicine is part of a course (SVEB10408U Herd Health and Public Health) placed in the last year of the bachelor programme. The course consists of several sub-elements including pig diseases and the veterinarian's functions in pig herds. The teaching form is lectures with up to 180 students at the same time.

Podcasts are potential useful learning objects as podcast target audience is often young people in cities obtaining long educations. Podcasts have already been used for teaching medicine (Kelly et al., 2022). Therefore, podcasts could be a way to provide learning about veterinarians' work with large animal medicine. The purpose of the current study was therefore to examine how the veterinary students received the use of podcasts, whether they used them and what they thought of them.

Material and methods

The podcast was considered a type of e-learning and should provide a supplement to the ordinary lectures. I attended a Workshop at Centre of Blended Learning and knowledge from this workshop and other materials were used to prepare the podcast in the best possible way (Hans Hüttel, 2016). Two different podcasts were made. The first podcast contained an actual veterinary visit with a practicing veterinarian in a herd. I participated in the herd visit as a “fly on the wall” and recorded the herd visit. The purpose of this was to give the students a real, live impression of how a herd visit was done. After the recording, the podcast was edited in the programme Audacity which is a podcast editing programme where it was edited so that breaks or poor sound were edited out to the widest extent. Approximately 4 hours of material were edited down to a little less than 1 hour. In podcast 2, I myself walked around a herd on my own and explained how the herd is examined, what a veterinarian looks for, what special attention is given to and what a herd veterinarian considers during a herd visit. Putting it simply, it is the things going on inside the veterinarian’s head during the visit which I was trying to show in this way. This podcast was also edited in Audacity as I had approximately 2 hours of raw material which was edited down to less than 1 hour. In connection with start of the course on the first day, it was pointed out that the podcasts existed. They had been made available on both Absalon via a link and Spotify and Apple Podcast so that they were available on mobile phones and could therefore also be used when doing other things. In connection with the course, it was mentioned that it was supplementary course material and that it was the intention that the students could listen to this when doing dishes, cycling, mowing the lawn or other things. The effect was measured using online tools during the lectures (SendSteps) by asking during the course how many had listened to these podcasts. In addition, it was possible to check the number of streams on the podcast platforms used. At the end of the course interviews were performed with 3 students. They were asked about their opinion of the use of podcasts, how the quality had been, whether they thought it was good and whether it was something that should continue.

Results

During the last lecture with a SendSteps poll, 58 students were present at the lecture, 12 had heard a little of both podcasts, 11 had heard one entire podcast and 7 had heard both podcasts. 28 had not heard them. The podcasts had been streamed 152 times during the time of the course from Spotify and Apple Podcast. It should also be noted that only approximately half of the students of the entire class was present at the lectures during the course. The students themselves said that this is normal since approximately half of a class comes to lectures and the other half never comes. The interviewed students said that they had experienced video but not podcast in other courses previously. The students enjoyed the flexibility of the podcast format, it was an easy way to put in some extra work, it gave a very nice picture of the work as a large animal veterinarian and provided a sort of hands-on experience. It made it easier to understand the content of the lectures and they enjoyed the use of different teaching formats. The podcast had also calmed down two of the students for making herd visits in real life:

“A herd visit seems to happen in a nice way and in a good atmosphere. It actually seems they are enjoying themselves”.

On the downside there were some comments from a technical point of view. The podcast where I was speaking was considered the best and they would have liked a bit more speak in the podcast with the real herd visit. Without the speak it was at times difficult to follow what was going on at the real herd visit. At times it was difficult to heard people talking because of the noise from the pigs and ventilators in the stable.

Discussion

Different types of e-learning has been used in teaching veterinary students, including video for practical veterinary skills (De Melo et al., 2023; Lotte Rienecker et al., 2015). Apparently there has not been any previous experience using podcasts, but I have seen one other use for veterinary students during the spring 2024. Podcast is not a medium which can be used for everything, but it is a flexible and more informal way of passing on knowledge. The use of podcasts provides the flexibility which characterises e-learning in general. This means that the students

can do it at their preferred hours of day, but also in this case while they are actually doing other things. The advantage of podcast compared to a video podcast or seminars is that one does not have to pay attention to photo material at the same time, and one can therefore listen while doing other daily things. I also believe that this exact type of material in the form of a herd visit is very suitable as podcast medium as it is not heavy on very detailed information but rather a story about what is going on. The student interviews confirmed that. The students used the podcasts and generally thought it was a good supplement. It gave them a good understanding of the work of a herd veterinarian, but on the other hand technically there was room for improvements. To improved technology, wireless microphones on the participants would have been a clear advantage. The order of the podcasts should also have been different. We should have started with the podcast concerning my explanation of what is done during a herd visit, and the other podcast with the veterinarian doing a herd visit should have been the second one. I should also have made a speak during the herd visit podcast to make listeners aware of when a new section of the farm was visited, or a new subject was touched upon during the herd visit. Some of these points were also raised from some of my colleagues who I had made previous discussion with about the podcast idea and also asked to listen to the first podcast and then give me feedback. The idea about the second podcast with me talking and explaining about the veterinarian's thoughts during a visit was a result of these previous discussions with my colleagues. On the other end of the spectrum, two of my older colleagues did not see the point at all using podcast for teaching and addressed the issue that video would be more informative. I think this illustrated that "older" people may not be considered the target audience. The students also confirmed during the interviews that they did use podcast for other things and were listening to audiobooks also.

In this study the podcasts were used as non-mandatory supplemental materials and we did not use or talk about the podcasts during the lectures. To improve the overall alignment in the course between learning objectives, teaching and the exam, this should be changes for the future. Also in terms of the didactic triangle the podcasts should be integrated with the lectures to get a better and relevant

interaction between the teacher, the teaching materials and the students. Veterinary students focus a lot on the exam and the intended learning outcomes. Therefore, it was positive surprise that so many of the students heard the podcasts. In this course the students must be able to explain what the role of a herd veterinarian is. Later in the veterinary curriculum students learn more about the work with large animals and with learning objectives at a higher taxonomical level. Podcast may also be useful in those courses.

No measurement of student learning was performed in this study and would be interesting for another study. Others have reported lower (Tolonen et al., 2023) or better (Back et al., 2017) learning effects using podcast compared to other types of teaching.

The veterinary education is an academic profession-oriented education programme, and in my opinion the teaching also should have the goal to prepare students for the working life after graduation. It has been reported that doubt and uncertainty is a large problem among veterinary students when they consider the work they must perform as practicing veterinarians (DORTE BAY et al., 2022). Therefore, it was very interesting that two students said the podcast had a calming effect addressing this exact point. It is a central point to take into consideration from where the students come from, their viewpoints and their interests. Beforehand, we were of the impression that students have a very low interest in pig medicine, and this was therefore an implicit impression from our side which was not necessarily correct. After using the podcasts, it has been possible to create increased interest in this area which has otherwise traditionally not found great interest among the veterinary students. There is no doubt that when asking in plenary how many have worked with or possess knowledge of farming it is very few, and this reflects the common tendency in society where fewer and fewer people have contact to farm production. The podcasts helped this aspect providing practical insight and making the work as a large animal veterinarian less abstract.

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