

Development and Evaluation of vetPAL, a Student-Led, Peer-Assisted Learning Program

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ABSTRACT

Based on an idea from a final-year student, Bristol Veterinary School introduced vetPAL, a student-led, peer-assisted learning program. The program involved fifth-year (final-year) students acting as tutors and leading sessions for fourth-year students (tutees) in clinical skills and revision (review) topics. The initiative aimed to supplement student learning while also providing tutors with opportunities to further develop a range of skills. All tutors received training and the program was evaluated using questionnaires collected from tutees and tutors after each session. Tutees' self-rated confidence increased significantly in clinical skills and for revision topics. Advantages of being taught by students rather than staff included the informal atmosphere, the tutees' willingness to ask questions, and the reliability of the tutors. The small group size and the style of learning in the revision sessions (i.e., group work, discussions, and interactivity) were additional positive aspects identified by both tutees and tutors. Benefits for tutors included developing their communication and teaching skills. The training sessions were considered key in helping tutors feel prepared to lead sessions, although the most difficult aspects were the lack of teaching experience and time management. Following the successful pilot of vetPAL, plans are in place to make the program permanent and sustainable, while incorporating necessary changes based on the evaluation and the student leader's experiences running the program. A vetPAL handbook has been created to facilitate organization of the program for future years.

Key words: near peer-assisted learning, clinical skills, revision, review, group learning, veterinary medical education

INTRODUCTION

Peer-Assisted Learning (PAL) has many definitions, but one used regularly is "people from similar social groupings who are not professional teachers, helping each other to learn and learning themselves through teaching."¹(p.322) Strictly, PAL refers to learning between peers at the same academic level, while Near Peer-Assisted Learning (NPAL) refers to PAL between peers in the same academic field but with a difference of at least 1 year.²

At all levels of education, people can be seen turning to their friends and colleagues for clarification, explanation, and academic advice. This in itself is a form of PAL, albeit an informal one. At the other end of the spectrum, PAL (or NPAL) can be a compulsory part of the curriculum,³ with some programs assessing content taught by peers.⁴ In between is an array of different forms of PAL, from informal study groups to time-tabled and structured sessions.

In the medical and veterinary field, PAL has been shown to be beneficial when teaching professional skills such as communication,³ clinical reasoning,⁵ practical skills,⁵⁻⁷ and clinical examination.⁸ However, PAL is about more than just the tutee gaining skills and knowledge.

Tutors develop communication and teaching skills^{7,9-11} as well as self-confidence,⁵⁻⁷ all important to being a good veterinary or medical practitioner. This highlights one of the key points about PAL: that it benefits both the individuals acting as tutees and as tutors.^{1,5,10,11} Teaching is well-recognized as a form of learning,^{9,12} and as such the tutor's knowledge and understanding may increase as much or more than the tutee's.^{1,12} Tutees gain from learning in an unthreatening environment, in which they can more closely relate to their tutor,^{2,7,13} and often in smaller groups than would be possible if being taught by staff.^{6,7} Institutions also stand to benefit from PAL programs, which can be used to supplement core learning without requiring additional staff.^{3,7,14}

Despite the advantages, various factors must be considered before setting up a PAL program. The initiative may not save the institution any time or resources, especially during initial setup.¹⁵ Personality conflicts between peer tutors and tutees have been reported as causing problems,⁶ and potential lack of knowledge of tutors has also been identified as an area of concern that should be monitored.^{2,6,7} Choosing the correct subject to incorporate into such programs is important.¹³

This paper describes the development, implementation, and evaluation of a student-led NPAL program called vetPAL at Bristol Veterinary School, United Kingdom. The program was the idea of a final-year student and was created to provide extra learning opportunities and to help students learn by teaching. The idea responded to the observation that many students teach their peers informally but could benefit from a more structured approach. Fifth-year (final-year) students taught fourth-year students in clinical skills and also led interactive revision sessions, involving the review of previously taught material.

METHODS

Staff–Student Consultation

A final-year veterinary student (LSWB) proposed ideas for a voluntary NPAL program. Following discussion with staff, it was decided to run a pilot year of the vetPAL initiative that would be student-led with university support. The program involved final-year students leading informal sessions for fourth-year students in clinical skills (during teaching block 1, in October and November) and revision topics (during teaching block 2, in February and March).

Initial discussions among staff and the student leader (the final-year student who proposed vetPAL) resulted in a decision that the program should aim to supplement learning for fourth-year students while consolidating knowledge for fifth-year students, in addition to developing fifth-year students' communication and teaching skills. Additional objectives were to evaluate the initiative regarding student benefits and feasibility with the intention of creating a sustainable program. A timeline of key stages in the development and running of the program was written, including provisional dates where relevant. Dates were chosen according to the fifth-year clinical rotation timetable and student availability. For each point on the timeline, any potential issues were identified and solutions proposed. This enabled the student leader to organize the program with only limited input from staff. All correspondence with participating students was via the student leader.

The clinical skills to include in the program were selected from a list of competences expected of students during clinical rotations, including those assessed using Direct Observation of Procedural Skills (DOPS). Skills chosen were based on discussions with final-year students and staff, focusing on those that students were known to find difficult at the start of rotations, in addition to allowing use of the new clinical skills laboratories. Skills selected were clinical examination of the dog; suturing (simple interrupted and simple continuous); and bovine intramuscular injection and jugular blood sampling using a vacutainer. It was decided that fourth-year tutees would practice all three sets of skills in one session and rotate among them. Broad revision topics were outlined in advance based on the fourth-year timetable (tutors only led sessions already taught formally in the curriculum) and specific topics were to be selected by tutors once recruited. It was decided that fourth-year tutees would attend just one subject for the whole session

and would be given the opportunity to choose which subject in advance.

Implementation of the vetPAL Program

Tutor Recruitment

All tutors were recruited at the beginning of the program. An email was sent to all fifth-year students in the veterinary program to advertise the scheme and describe potential benefits to being involved and details of what would be required of a tutor. It was requested that all tutors attend one session in teaching block 1 (on clinical skills) and one session in teaching block 2 (revision topics). Out of 118 final-year students, 24 students replied and 17 tutors were recruited on a first come, first served basis, according to dates available. The student leader also acted as a tutor, making a total of 18 tutors (14 female, 4 male; similar to the gender distribution within the veterinary school's student population).

Once recruited, tutors were added to a private Facebook page, which was created to manage all subsequent communication to and among the tutors. Through this, tutors were given the list of clinical skills and potential revision topics and were asked to indicate those they would prefer to teach, would not mind teaching, and would not feel comfortable teaching. Clinical skills and revision topics were then assigned according to these preferences. None of the tutors was asked to teach in an area in which they did not feel comfortable. Three or four tutors were allocated to each clinical skill and two to each revision topic. Once revision topics were assigned, tutors were asked to write a more specific lesson title and learning objectives based on an area they considered to be important but often misunderstood.

Tutor Training

All training sessions took place in the evening on campus. They were held twice to account for differences in the fifth-year students' timetables. Tutors were provided with food (pizza and snacks) to cater to those coming straight from the clinics.

In preparation for leading a clinical skill session, all tutors attended a 1-hour training session in teaching block 1 led by a member of staff (SB) from the veterinary school. The training covered how to structure a session, different learning preferences, use of questioning in teaching, and how to teach a clinical skill.¹⁶ The session included time in the Clinical Skills Lab, and tutors were encouraged to revisit the Clinical Skills Lab as part of their preparation and/or to practice at home.

A training session was held in teaching block 2 to prepare tutors for leading an interactive revision session and to facilitate group learning. This lasted 90 minutes and was led by a member of staff (ZP) who runs training sessions for peer tutors as part of the central university PASS Program (Peer-Assisted Study Sessions).^a The training covered experiential learning, techniques for gathering ideas and information from a group, different approaches to learning and asking questions, how to open and close a session, and how to plan a session. It was emphasized that the tutors should facilitate revision of previously taught material rather than teach new material.

Table 1: Overview of vetPAL sessions

	Session type		
	Clinical skills sessions (delivered twice)	Revision session 1	Revision session 2
Location	Clinical skills lab	Adjacent seminar rooms	Adjacent seminar rooms
Format	1 hour*	1 hour	1 hour
	Tutees rotate between stations	Tutees allocated to group based on preference	Tutees allocated to group based on preference
Number of tutees and tutor-to-tutee ratio	21 tutees at each session 1 tutor to 2–3 tutees	21 tutees 2 tutors to 5–6 tutees	20 tutees 2 tutors to 5–6 tutees
Skills/topics	Canine clinical examination Suturing	The cattle fertility examination Common orthopedic problems of the equine hindlimb	The cattle fertility examination Case-based approach to congestive heart failure in dogs
	Bovine I/M injection and jugular blood sample	Approach to the pruritic dog Cat flu Feline cystitis	Diagnosing hyper- and hypo-adrenocorticism in dogs Clinical approach to ulcerative keratitis

* Extended to 75 minutes for second session to facilitate moving between stations

After each training session, tutors were given a week to plan their session in their designated groups/pairs and return the plan to a member of staff to be checked (SB or SW). For the clinical skills session, tutors were given a blank lesson template designed specifically for teaching a clinical skill. For the revision session, tutors were free to create a plan in any format, providing it covered the learning outcomes, listed required resources (e.g., flip charts, pens), and specified the time allocation for each section.

Tutee Recruitment

An email was sent to all fourth-year students 7 to 10 days before each event. The email advertised the program and emphasized that anyone could participate. It also stated that places would be assigned on a first come, first served basis.

Out of 126 students, 30 fourth-year students replied within 24 hours to attend the first clinical skills session, which had 24 places. An email was then sent informing students that the session was full but explaining there would be a second session. The second clinical skills session 6 weeks later covered the same skills led by a different group of fifth-year students, and an additional 24 fourth-year students signed up.

When advertising the revision session, a list of available topics was included in the email and fourth-year students were asked to rank these in order of interest when replying. Allocation was on a first come, first served basis, while maintaining an approximately equal number of tutees (six) per subject. The second session involved different tutors. One topic was the same as the first session but the rest were different (Table 1). All fourth-year tutees were asked to revise in advance, with the aim of helping to make the sessions more interactive.

Running the Sessions

All vetPAL sessions took place in the evening, on campus, with a member of staff in the building but not actively involved. Tutors arrived 30 minutes before the start of the session to set up and prepare. As for the tutor training, food was provided for tutors (although not tutees).

Any tutees who did not turn up to a session without informing the student leader beforehand were politely emailed the following day asking for an explanation. There were few absences, all due to forgetfulness, and student explanations were acknowledged by the leader. The aim was to indicate that, having signed up for a session, attendance was expected. It was also intended to serve as a mechanism to identify any more serious reasons for non-attendance, which would then be referred to a member of staff.

Any common tutee misconceptions (skills or knowledge) identified by tutors or areas tutees were finding particularly difficult were forwarded to relevant members of staff via the Head of Teaching (SB).

Evaluation of the vetPAL Program

All tutees and tutors were asked to complete questionnaires at the end of every event. Feedback was anonymous and voluntary.

Tutees

Similar questionnaires were used for both types of session, although a few questions were included specific to session type (clinical skills or revision). At the beginning of each questionnaire, a free-text question was used to ask tutees why they had wanted to attend vetPAL. A 5-point Likert scale (1 = *not at all*, 2 = *slightly*, 3 = *somewhat*, 4 = *moderately*, 5 = *extremely*) allowed tutees

to rate how beneficial the session was overall and to rate their confidence in each skill or revision subject before and after attending. Free-text questions asked tutees to identify the most useful aspect(s) of the session and to suggest improvements.

For the clinical skills sessions, tutees were asked to comment on the main advantages and disadvantages of vetPAL compared to being taught by staff. For the revision sessions, tutees were asked what they would do differently in their studies/revision afterwards. As the revision sessions were at the end of the pilot year, tutees were asked if they would recommend vetPAL to other students (*yes/no*). Both questionnaires finished by asking for any other comments.

Tutors

Similar questionnaires were used for both the clinical skills and revision sessions. Tutors were asked why they had volunteered, whether they had any previous teaching experience, and, if so, if they had received any training. A 5-point Likert scale (as outlined above) allowed tutors to indicate how well prepared they had felt to lead the vetPAL session. Free-text questions asked what had helped tutors feel prepared and what (if anything) would have enabled them to feel more prepared. Free-text questions also allowed tutors to comment on the parts of the session considered to be successful or not, and the most difficult aspects of leading the session. At the end, tutors were asked to list any skills developed as a result of being involved in vetPAL and how the session could be improved.

Data Analysis

Quantitative data were summarized and analyzed using non-parametric methods in SPSS 21.^b Descriptive statistics were calculated, and the Wilcoxon signed-rank test used to test for significant differences (significant if $p < .05$) between the tutees' perceptions of their confidence before and after the vetPAL sessions.

Two members of the project team (LSWB and SB) transcribed and hand-coded the qualitative data from the free-text questions to identify themes. Themes were identified as comments mentioned by respondents that could be grouped together into a single category. Results were compared, discrepancies regarding categorizations discussed, and agreement reached.

Ethics Approval

The project received ethical approval from the University of Bristol's Faculty of Medical and Veterinary Sciences Research Ethics Committee (ID 13221).

RESULTS

Tutees

Of the 48 tutees who signed up for the clinical skills sessions, 42 attended (Table 1) and 40 completed a questionnaire. Of the 46 tutees who signed up for the revision sessions, 41 attended (Table 1) and 39 completed a questionnaire. All questionnaires were included in data analysis.

Quantitative Results

Results of the Likert-style questions indicated tutees found both the clinical skills and revision sessions beneficial (Figure 1).

Based on self-rating, the confidence of tutees increased significantly for both the clinical skills and topics (Table 2). Data from different revision topic areas were combined due to low group sizes for individual topics.

After the revision sessions (which were held at the end of the pilot year), tutees were asked if they would recommend vetPAL to another student and 97% (38/39) selected *yes*.

Qualitative Results

The most common reason for tutees choosing to be involved in clinical skills sessions was the opportunity to

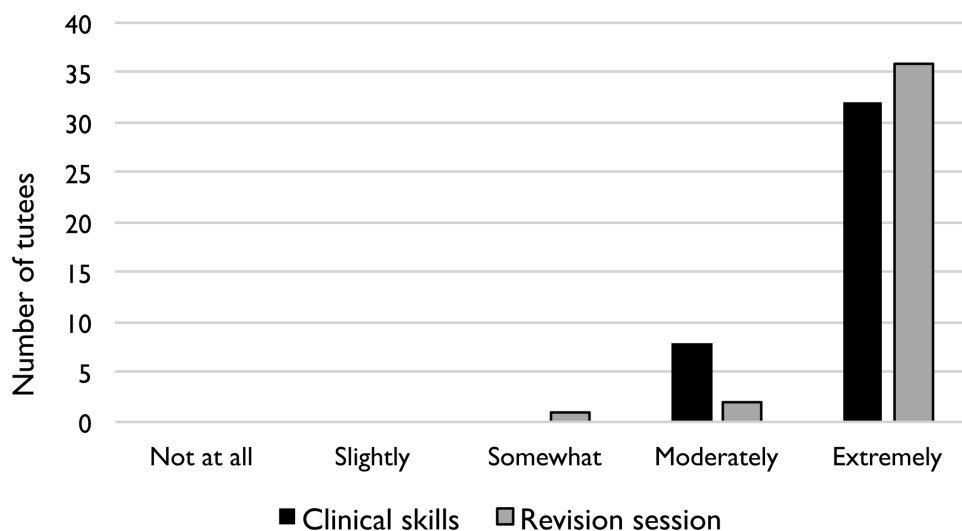


Figure 1: Tutee responses to the question “Overall how beneficial did you find vetPAL?”

Table 2: Tutee self-rated improvement in confidence following the vetPAL sessions from completed questionnaires (40 for clinical skills and 39 for revision topics)

Session		Likert scale rating*					p
		Min	Q1	Mdn	Q3	Max	
Clinical examination	Pre-vetPAL	1	2	3	3	4	<.001
	Post-vetPAL	3	4	4	4	5	
Suturing	Pre-vetPAL	1	2	3	3	5	<.001
	Post-vetPAL	2	3.25	4	4	5	
Bovine I/M injection	Pre-vetPAL	1	3	3	4	5	<.001
	Post-vetPAL	3	4	4	5	5	
Jugular blood sample	Pre-vetPAL	1	1	2	2.75	5	<.001
	Post-vetPAL	2	3	4	4	5	
Revision session topics	Pre-vetPAL	1	2	2	3	4	<.001
	Post-vetPAL	3	4	4	5	5	

* 1 = not at all confident; 2 = slightly confident; 3 = somewhat confident; 4 = moderately confident; 5 = extremely confident
Min = Minimum; Q1 = Quartile 1; Mdn = Median; Q3 = Quartile 3; Max = Maximum

practice, while for the revision sessions, most comments related to the opportunity to learn, revise, and consolidate knowledge. When asked to identify the most useful aspects of each session, the themes were similar, for instance, "Practice!" and "reinforcing knowledge," as well as aspects of peer-assisted learning (the relatability of tutors, being able to ask "silly" questions, and the informal atmosphere). Comments included "being run by fifth years that can remember how it felt this time last year"; "much less intimidating!"; "you can ask questions you might feel silly asking staff"; and "highlighting the key points." In the revision sessions, tutees also appreciated the value of learning differently with references to discussions, group work, and interactivity. In the clinical skills sessions, a few noted the advantage of the small group size.

Tutees attending the clinical skills session were asked to compare vetPAL with being taught by staff and they identified benefits relating to the informality, being able to relate to tutors, and not worrying about asking questions. The main concern was the knowledge (or potential lack thereof) of the peer tutors.

Tutees attending the revision sessions were asked to reflect on what they would now do differently in their revision/studies and the main theme related to changes in individual approaches, for example, "I will break it up and look at key points in each topic instead of trying to learn it all" and "I will build up from basics." The value of working as a group also featured as a theme: "group discussion was very useful—will try and get together with friends."

When asked what improvements could be made to vetPAL, the text box was often left blank or tutees stated "none." The most frequently suggested improvements were more time for clinical skills and more revision sessions.

Both the clinical skills and revision session questionnaires finished by asking "Any other comments?" Both received many responses such as "Very good! Thank you!" and "Really enjoyed it, great idea."

Tutors

Quantitative Results

All 18 tutors (including the student leader) attended one clinical skills session and one revision session. Of these, 17 completed the questionnaire after the clinical skills sessions and 16 after the revision sessions. All questionnaires were included in data analysis. Although 16 had done some form of teaching previously, only 7 had received specific training. Tutors were asked immediately after each vetPAL event how well prepared they had felt to lead the session. They responded that they perceived themselves to be moderately to extremely well prepared (Figure 2).

Qualitative Results

Three key themes were identified when tutors were asked why they had volunteered: enjoying teaching; wanting to help others; and wanting to practice skills and/or consolidate their own knowledge. Enhancement of their *curriculum vitae* also featured to a lesser extent, although in no case was this the solitary reason for signing up. Responses included "to practice my skills, because I enjoy teaching and to put something on my CV!" and "I know I would have liked this as a fourth year."

When asked what had helped them feel prepared for vetPAL sessions, tutors identified the training sessions as being the most valuable aspect for both the clinical skills and revision sessions. It was also considered important to have practiced the clinical skill and to have revised the topic of the revision session and discussed the lesson plan with the other tutor. When asked what would have helped them feel more prepared, tutors mentioned more practice of clinical skills and more experience in leading a session for revision, although the question was often left blank or tutors stated "nothing."

Tutors identified the most successful aspect of vetPAL sessions as being the small group size, which "enabled individual help and attention." They also recognized the value of the informal atmosphere and tutees being able

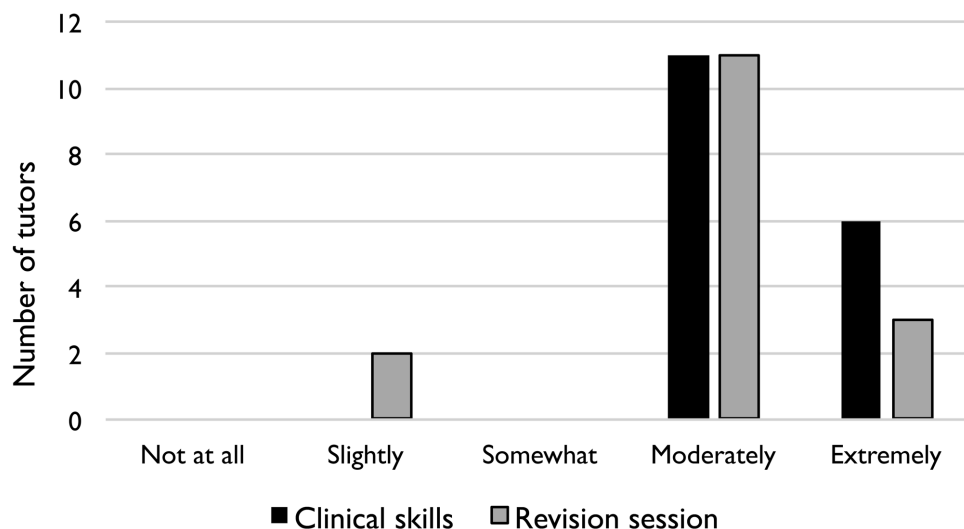


Figure 2: Tutor responses to the question “How well prepared did you feel to lead the vetPAL session?”

to ask “silly questions.” Other minor factors included having the extra opportunity to practice for clinical skills sessions and the format of the revision sessions. For example, the “interactive parts were successful because the tutees were engaged” and the use of “brainstorms—lots of answers to discuss and lots of input.”

When asked to reflect on aspects that were less successful, time (or lack thereof) was the major issue for clinical skills, although less so for the revision session. The greatest difficulties tutors encountered around teaching (other than managing time) related to lack of experience, including struggling to choose an appropriate subject, “selecting a topic that was detailed enough, but not too detailed,” and “trying to prompt, but without giving the answers.” Tutor knowledge (or lack thereof) was considered only a minor issue. When asked how the vetPAL sessions could be improved, the main themes were more time for clinical skills and simply “more” revision sessions.

Tutors were asked to list skills they thought they had developed as a result of taking part in vetPAL and the most commonly mentioned were teaching and communication skills. Comments included “I know better how to structure teaching”; “I have learnt how to explain things in a way people will understand”; and “summarising information and being concise.” As minor themes, improvement in the tutor’s own ability was referenced for clinical skills and overall increased confidence with comments such as “I’ve realised you know more than you think you do.”

DISCUSSION

The vetPAL program was well received and popular with both tutees and tutors. Overall, the comments were positive, highlighting the importance of the tutor training and identifying a few aspects that may need to be changed.

One of the aims of vetPAL was to supplement learning of fourth-year students. Tutee feedback after the sessions showed that self-rated confidence significantly increased

for all clinical skills and revision topics. Although a change in ability or knowledge was not specifically measured, an increase in confidence is likely to indicate that some learning has occurred. Others have demonstrated that PAL can be used effectively to teach clinical skills⁶ and clinical examination,⁸ and that students regularly attending peer-assisted study groups achieve higher exam or test results than other students.^{17,18}

Several factors contributed to creating a positive learning environment, including the informal atmosphere and willingness to ask questions; these have been identified in other PAL programs as an advantage when compared to teaching by staff.^{2,7,19} The relatability of the tutors also featured and may be linked to the development of increased confidence and learning in tutees. Others have indicated that peers are sometimes better placed than senior academics to identify difficulties that tutees experience and to establish points to learn.¹⁹ Tutees in our program commented that the tutors helped them determine important aspects within a revision topic. The small groups in vetPAL were mentioned more frequently as an advantage by tutors than tutees; this may be because tutees were more focused on other benefits. The different style of learning in the revision sessions (i.e., group work, discussion, and interactivity) was considered one of the most useful aspects by the tutees and was considered key to achieving success by tutors. Discussion of a topic, which is a natural component of group work, is known to be beneficial to learning.²⁰

Another aim of vetPAL was to benefit learning for those acting as peer tutors. Some tutors cited their increased ability in the relevant clinical skill, but there was no reference to learning by tutors at the revision events. This may be due to the question phrasing; tutors were asked to list “skills” developed, and as such increased knowledge may not have appeared to be an appropriate answer. Other initiatives cite an increase in tutors’ perceived understanding of a subject, although it was not specifically measured.^{9,17} Increased confidence in their

own ability was cited as a benefit, and informal discussions between the student leader and tutors did suggest that tutors felt their knowledge in the areas taught had increased. It is likely that learning occurred in tutors but was simply not elicited via the questionnaires. The question has since been rephrased to ask tutors what they have learned as a result of taking part in vetPAL, in the hope that this will allow responses regarding both knowledge and skills.

As commonly cited in PAL programs, our tutors reported development of their teaching and communication skills following vetPAL,^{7,9-11,17} as well as a general increase in confidence.⁵⁻⁸

The provision of training was crucial in helping the tutors feel prepared for both the clinical skills and revision sessions. Tutors mentioned that formulating the lesson plan was also useful preparation, especially for the revision sessions. Other PAL programs involve training of tutors^{3,6-8,19}; most have not specifically investigated the impact, although tutees in one study did consider that the tutors were sufficiently prepared after extensive training.⁶ In vetPAL, despite most of the difficulties reported by tutors being related to a lack of teaching experience, more training in teaching techniques was not mentioned when tutors were asked what could have helped them feel more prepared. The difficulty of teaching tutees with different personalities^{5,6} was not mentioned in vetPAL and could have been mitigated by discussing different approaches to learning in the training sessions. The tutors cited their own level of knowledge as only a minor concern when delivering sessions, whereas others have noted it as a potential issue.^{2,7} In vetPAL, the tutees were more concerned about tutors' lack of knowledge when asked about the differences to being taught by staff; dealing with uncertainty and gaps in knowledge was also discussed during the training. In setting up a similar program, we would strongly recommend training tutors how to teach, facilitate group learning, and address a perceived lack of knowledge. Since the development of the vetPAL initiative, "the provision of training in teaching" has been added as an explicit aim of the program.

The vetPAL program has been mainly run by students, unlike many other PAL programs implemented by institutions.^{3,6,7,17,19} PAL programs are cited as giving students greater responsibility for their own learning.¹ Although not elicited in the feedback, we consider that the student-led nature of vetPAL strengthened the perception of responsibility and may have contributed to tutors' confidence in their abilities and to the creation of a relaxed, informal learning environment.

There are several limitations to our study as the benefits of the program were self-rated; the assessment of tutees' learning was based on self-confidence ratings and the development of skills in tutors was reported in free-text responses. Increased confidence is a perception, not an observation, and self-confidence ratings do not necessarily reflect competence.²¹ Further evaluation of the benefits of the program could be undertaken in the future; for example, tutee proficiency in clinical skills could be assessed using an Objective Structured Clinical Examination (OSCE). Although this program involved

one cohort of students at one veterinary school in the UK, it is likely that the approach and results are relevant to other institutions due to the similar structure and overall aims of veterinary and medical curricula.

In conclusion, following the success of the pilot year, we have decided to continue vetPAL, with the intention of making the program permanent. Two new vetPAL leaders (from 21 interested students) have been recruited following a student-led selection process.

A vetPAL Student Leader Handbook has been written, describing how to run the program. It includes a detailed timeline (when and how to book all activities), key contacts, risk assessment documentation, and a flowchart of "potential problems and solutions." A Google Form^c will be used to collect tutor and tutee details rather than email. To ease organization for future years, an online Dropbox^d folder has been created to store resources, including all current lesson plans and draft emails. Questionnaires are also available, in the same format as the pilot year, to allow year-to-year comparisons. We hope that the booklet and resources will enable the program to be a sustainable student-led initiative requiring minimal input from staff. A copy of the handbook is available to view online.^e

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NOTES

- a Peer Assisted Study Sessions, <http://www.pass.manchester.ac.uk/>
- b SSPS Inc., Chicago, IL
- c Google Forms, <https://www.google.com/forms/about/>
- d Dropbox, <http://www.dropbox.com/>
- e vetPAL Handbook, <http://www.bris.ac.uk/vetscience/media/docs/vetpalhandbook.pdf>

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