

DOMAIN 1b: Development of Enduring Educational Materials	
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<b>1. Educational Product:</b> Identify the impactful educational material you've select to focus on.	
Problem Based Learning unit on sepsis.	
<b>2. Your role(s):</b> Describe your role(s) and specifically what you contribute.	
My role in the development was as a co-author of the case. My role in the course is to schedule the facilitators, instruct the students regarding the PBL format, distribute materials to and train facilitators annually, facilitate one PBL group and deliver the 1 hour de-brief class session.	
<b>3. Learners and amount of contact:</b> Describe how the material is being utilized – i.e. specifically where, when ( <i>duration/frequency</i> ), and by whom ( <i>the types, levels and numbers of learners involved</i> ).	
This PBL unit is delivered in the 2 <sup>nd</sup> year of the professional curriculum to the entire class (144). This unit is designed to provide a full week of student directed learning <u>activity</u> .	
<b>4. Goals and learning objectives:</b> List goals and <u>learning objectives</u> of the educational product. If these are extensive, provide just a few illustrative examples.	
Learning Outcomes: 1. Students will <u>further their understanding</u> of Sepsis and Systemic Inflammatory Response Syndrome (SIRS). 2. Students will develop an understanding that the same signals required for response and resistance to infection, as well as activation of the innate immune response, are responsible for the sequelae to sepsis. 3. Students will further their understanding of pathogen recognition in general, and the immunopathology of sepsis in particular: a. Students can discuss the key role of the endothelium in propagating the pro-inflammatory state b. Students can report that the competent immune system is responsible for SIRS.	
<b>5. Methods:</b> Briefly describe the product / materials – i.e. the methods used and how these align with objectives.	
This PBL case was developed for the 6 <sup>th</sup> week in an 8 week course. The students have minimal other class sessions during this week in order to provide them time to work on the case material. The group size is 8-9 students and there are three facilitated group meetings for 2 hours each meeting. The case, of a new born foal with sepsis, is framed in the context of answering the owner's question about their foal: <i>Is my foal sick because the infectious organism is particularly virulent, or does my foal have a defect in immune function?</i>	
<b>6. Rationale:</b> Describe why and how you chose the method(s) you used.	
PBL as a learning method was chosen to stimulate deep learning and to help students synthesize concepts of infectious disease eg. pathogen associated molecular patterns and immunology eg. pattern recognition receptors, SIRS, and immune-deficiency syndromes. As an instructor I have had the experience working with students who struggle with the concepts of immunology. The discipline is abstract and that presents a problem for some learners. Using a clinical case as a problem provided relevance and hopefully stimulated the intrinsic desire to solve the problem.	
<b>7. Results and impact:</b> Describe evidence of learner satisfaction ( <i>e.g. student ratings of teaching/course</i> ), learning outcomes, application of knowledge in other settings at your institution, impact on educational programs within the institution, and/or teaching awards.	
This PBL case is <u>well received by the students</u> and always referenced in their evaluations of the course as one of their most valuable learning experiences. The students <u>often remark</u> that they value the time to read and study more deeply in a topic and that the PBL experience helps them integrate other information from the course and other courses. This unit is assessed in two ways; the facilitators provide a Pass/ No pass written evaluation for each student and there is a short essay requiring the analysis of a similar case in a different species on the final examination. <u>This assessment exercise reveals a high degree of understanding and analytical ability</u> , and also identifies students who did not meet the learning outcomes.	

**Commented [SAH1]:** Good. The applicant's role is clearly explained. Some information about time invested might be useful.

**Commented [SAH2]:** How many years/times has the product been used?

**Commented [SAH3]:** Learning objectives might benefit from the use of more active verbs as described for SMART objectives.

**Commented [SAH4]:** There was a missed opportunity here to demonstrate a "scholarly approach" by briefly discussing the evidence for PBL as a high impact teaching practice – and why it was chosen for this course.

**Commented [SAH5]:** This submission could be significantly strengthened with a less anecdotal/more specific report of outcomes – at least some quantitative student evaluation (satisfaction) data as might be acquired in a post-course or post-exercise survey.

**Commented [SAH6]:** As noted above, more specific information on learning outcomes as measured in a post-course or post-PBL assessment would be strengthening. It can admittedly be hard to parse that specific data out of an assessment, but it would also show that the assessment process was aligned with and supported the stated learning objectives.

<b>8. Reflective critique:</b> Describe your reflections, what went well and plans for improvement. If applicable, briefly explain how the information obtained through development and assessment of this teaching activity changed your overall educational practices.
Facilitator's are invited to a training annually 2 weeks prior to the sessions and provided with a review of PBL facilitation theory and practice. (Case as a Facilitator's Guide is provided as Appendix 1). One of my concerns has been the fact that I can never get all the facilitators (16) to attend the review session. I do feel that the "calibration" that occurs in the discussion between facilitators prior to the case is important to providing the students in different groups with a similar experience. It also allows individuals who are at either end of the spectrum, from educator with no veterinary critical care training to criticalist, to inform the practice of facilitation of this case. Going forward I would like to study the potential influence of facilitator, or lack thereof, on the learning outcomes of students
<b>9. Dissemination:</b> If applicable, describe how your efforts have been recognized by others externally through peer review, dissemination, use by others, or teaching awards nationally.
Not applicable.

Commented [SAH7]: Evidence here of thoughtful reflection that is being used as part of a process of ongoing improvement.