

Use of Didactic Bibliographic Resources to Improve the Teaching and Learning Processes of Animal Reproduction in Veterinary Science

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Abstract : Introduction: The use of didactic instruments in different learning environments plays a pivotal role in enhancing the level of knowledge in veterinary science students. The direct instruction of basic animal reproduction concepts in students enrolled in veterinary medicine programs allows them to elucidate the biological and molecular mechanisms that perpetuate the animal species in an ecosystem. Therefore, universities must implement didactic strategies that facilitate the teaching and learning processes for students and, in turn, enrich learning environments. Objective: to evaluate the effect of the use of a didactic textbook on the level of theoretical knowledge in embryo-maternal recognition for veterinary medicine students. Methods: the participants (n=24) were divided into two experimental groups: control (Ctrl) and treatment (Treat). Both groups received 4 hours of theoretical training regarding the basic concepts in bovine embryo-maternal recognition. However, the Treat group was also exposed to a guided lecture and the activity play-to-learn from a cow reproduction didactic textbook. A pre-test and a post-test were applied to assess the prior and subsequent knowledge in the participants. Descriptive statistics were applied to identify the success rates for each of the tests. Afterwards, a repeated measures model was applied where the effect of the intervention was considered. Results: no significant difference ($p>0,05$) was observed in the number of right answers for groups Ctrl ($54,2\%\pm12,7$) and Treat ($40,8\%\pm16,8$) in the pre-test. There was no difference ($p>0,05$) comparing the number of right answers in Ctrl pre-test ($54,2\%\pm12,7$) and post-test ($60,8\pm18,8$). However, the Treat group showed a significant ($p>0,05$) difference in the number of right answers when comparing pre-test ($40,8\%\pm16,8$) and post-test ($71,7\%\pm14,7$). Finally, after the theoretical training and the didactic activity in the Treat group, an increase of 10.9% ($p<0,05$) in the number of right answers was found when compared with the Ctrl group. Conclusion: the use of didactic tools that include guided lectures and activities like play-to-learn from a didactic textbook enhances the level of knowledge in an animal reproduction course for veterinary medicine students.

Keywords : animal reproduction, pedagogic, level of knowledge, learning environment

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