

TITLE:

Homework Assignments that Promote Content Integration and Application

AUTHORS: - with affiliation(s)

Heloisa M. Rutigliano

ABSTRACT: *300 word limit (when applicable, please include: purpose & background, methods, results, conclusions/discussion)*

Several studies have supported the notion that active learning activities such as problem-solving cases and simulations increase comprehension and retention of information. Instructors who teach basic science courses find it hard to integrate their course material with clinical, real-life scenarios.

The objectives of this study were to assess student perception of active learning techniques and their usefulness to promote understanding and integration of class material.

Three different types of group assignments were given to students: 1) clinical case discussions followed by questions relating the case with course content; 2) creation of concept maps to integrate course information and to explain the basic immunological mechanisms associated with given clinical findings of simple immune-related disorders; 3) development of a new product (immunodiagnostic assay, vaccine or drug) to prevent, diagnose or cure a disease of significance in veterinary medicine.

Students received an anonymous survey to assess their impressions on the usefulness of these assignments. Students considered concept maps (4.6 out of 5) the most helpful active learning technique followed by clinical case discussions (4.4 out of 5) and product development (3.3 out of 5).

By using concept maps, veterinary students were able to apply and integrate their knowledge of basic immunology to clinical scenarios, and demonstrate the complex and interconnected nature of veterinary immunology.