

# Lesson Study in Health Professions: Effectiveness of Applying Case Study Method of Instruction to Pathophysiology

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BACKGROUND	THE LESSON	THE STUDY
<p><b>Effectiveness of Applying Case Study Method of Instruction to Pathophysiology</b></p> <p>Rationale: Students often struggle to use information learned in the GI disorders lecture at an upper level of application. This is evidenced when students are tested on material that requires them to apply GI disorders concepts.</p> <p><b>Student Learning Goals</b></p> <ol style="list-style-type: none"> <li>1. Students should exhibit critical thinking skills and application of knowledge.</li> <li>2. Students should collaborate and problem solve together.</li> <li>3. Students will retain information on GI disorders for unit exam.</li> </ol>	<p><b>Major Steps</b></p> <p><b>Pre-Lesson:</b> Students should;</p> <ul style="list-style-type: none"> <li>• complete assigned reading on subject prior to coming to class.</li> <li>• be able to understand all GI disorders objectives prior to coming to class.</li> <li>• write out responses to objectives and bring to class.</li> </ul> <p><b>The Lesson:</b> Students will;</p> <ul style="list-style-type: none"> <li>• come to class and discuss GI disorders objectives is assigned groups (15-20 mins.)</li> <li>• complete pre-test on GI disorders material (10 mins.)</li> <li>• work in assigned groups to complete a progressive case study on a GI disorder.</li> </ul> <p>The goal of the case is for them to apply GI disorders concepts and come up with a patient diagnosis. They should work collaboratively in their groups to find the answer.</p> <p>Once the students have completed the case, there will be a class discussion. Instructor will assess patterns of thinking through series of debriefing questions.</p> <p><b>Post-Lesson:</b> Students will;</p> <ul style="list-style-type: none"> <li>• complete a post-test on GI disorders material (10 mins.)</li> <li>• be assessed on information retention by questions on unit exam covering GI disorders in addition to some questions on the final exam.</li> </ul>	<p><b>Approach</b></p> <p>As the students were completing the progressive case study in pre-assigned groups, the instructors and observers evaluated and observed the students interactions for the following four pre-determined behavioral indicators:</p> <ol style="list-style-type: none"> <li>1. Engagement</li> <li>2. Understanding</li> <li>3. Skilled Action</li> <li>4. Critical Reflection</li> </ol> <p>Upon completion of the progressive case study, we conducted a class discussion of the five potential disorders and each group disclosed their patient diagnosis and reasoning with the rest of the class. Following this discussion, students individually participated in a post-case assessment, consisting of multiple choice questions pertaining to GI disorders material. In order to assess retention of this material, similar type questions were included on the unit and final exam.</p> <p><b>Key Findings</b></p> <ul style="list-style-type: none"> <li>• Our main goal, retention of information, was attained, as evidenced by the exam scores.</li> <li>• The goal of student application of content was also met.</li> <li>• Lastly, the Lesson Study goal of observing collaboration and critical thinking skills was achieved by section two. Useful information regarding the lack of achievement in section one was attained by the Lesson Study observation.</li> <li>• Study provided us with a useful template with which to assess the benefit of case study pedagogical method of instruction.</li> <li>• We look forward to another iteration in the next semester of instruction of pathophysiology.</li> </ul>