Assessment of Biomedical Science Content Acquisition Performance through PBL Group Interaction

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Abstract

Objective: To assess the relationship between biomedical science content acquisition performance and PBL group interaction. PBL process activities should enable students to learn and apply biomedical science content to clinical situations and enhance understanding. However, learning and exam preparation may be largely driven by post-case individual study and the publicized Learning Objectives. **Methods:** To determine whether students were actually learning SABS content during PBL process activities, just prior to the Learning Objectives dissemination, we administered a quiz assessing content recall and application as well as a student and facilitator survey to determine students' role in group regarding the assessed topic. **Results:** *Year 1 mean score*: content=84%; application=61%. *Year 2 mean score:* content=68%; application=20%. Survey response categories were: C1-those whose group did not research the topic, C2-those who did not personally research the topic, but who were in a group where the topic was researched and presented by others, and C3-those who researched the topic and contributed to/were the primary discussants. Year 2. Students scoring 100% were in: C1 (12.3%), C2 (15.5%), and C3 (15.5%). Students scoring 0% were in: C1 (30%), C2 (33%), and C3 (22%). Year 1. Students scoring 100% were in: C1 (50%), C2 (48%), and C3 (55.3%). Students scoring 0% were in: C1 (11%), C2 (9%), and C3 (2.3%). For Year 2, self-reported role in group correlated with scores of 50% (r=0.68) and 0 % (r=-0.78). For Year 1, self-reported role in group correlated with scores of 100% (r=0.78) and 0% (r=-0.97). **Conclusion:** Year 1 and 2 students performed better on test items assessing content recall rather than application. Students who reported being more active in the PBL group process activities tended to have better assessment performance.