Development of a Flipped Classroom Microbiology Curriculum: A Multi-Institution Collaboration

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HEALTH PROFESSIONS
EDUCATION

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Objective
• Assess student perceptions and knowledge acquisition using a collaborative FCR curriculum

Methods
• Core Content → 35 microbiology, immunology topics
• Module Creation → 8-10 modules per partner school
• Evaluation → 3 modules piloted at UCSF in Fall 2014

• Student perceptions assessment
• End of course survey and student focus group
• Likert scale (1 – 5) and free text responses
• Student knowledge assessment
• Identical exam in 2013 (lectures/small groups) vs. 2014 (flipped classroom added)

Results

| Individual Module Ratings (1 → 5 Likert Scale) |
| HELMINTHS | PROTOZOA | RESP VIRAL | TRAD. LECTURES | TRAD. SMALL GRP |
| 4.4 | 4.1 | 3.6 | 4 | 4.4 |

45% Combination
45% Flipped
12% Traditional

Student Perceived Strengths:
• Diversity of expertise across several universities
• Content delivered efficiently
• Ability to view content on students’ own schedules
• Use of classroom for reinforcing and clarifying concepts

Student Areas of Concern:
• Integration of modules into existing curriculum
• Focus on content most relevant to practice and exams
• Certain topics better as lectures

Future Directions
• Develop best practices for flipped classroom development and integration
• Pilots at other partner schools now underway
• Apply lessons learned to future development

References