THE DEVELOPMENT AND EVALUATION OF THE FLIPPED CLASSROOM IN GRADUATE NURSING EDUCATION

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THE FLIPPED CLASSROOM

Pedagogical Model

• Philosophy of active, student-driven learning

• Many opportunities for execution

• Lectures should support learning, not drive it

• Originally designed by Bergman and Sams (2006) to engage high school chemistry students

• Flipping pedagogy away from lecturing at students to working together with students to enhance critical thinking skills and prepare them for future practice
Initial Learning Phase

Prior to class time options for student learning include:

- View online lectures
- Complete assigned text readings
- Complete online discussions
- View online videos
- Review evidence based articles
Assessment Phase:

Prior to class time:

- Students take weekly online quizzes related to the initial learning phase materials

Quiz Example

Kealoha is a 12 year old presenting to clinic with moderate exacerbation of his asthma. According to the NHLBI Guidelines, the appropriate therapy is:

A. Short acting beta agonists (SABA) and oral corticosteroids
B. IV Solu Medrol
C. Only SABA; repeated every 5 minutes
D. Long acting beta agonists
The Flipped Classroom

Classroom Phase

Used for collaborative learning and application of new knowledge

- Large and small group discussions
- Case studies
- Demonstrations
- Speakers
- Projects
- Student presentations
- Simulation exercises
“Will graduate students in the Family Nurse Practitioner Program report satisfaction and appropriate knowledge acquisition with the flipped classroom experience?”
METHODS

• 20 graduate students (100 % participation) over 2 semesters were polled using Survey Monkey

• A semi-structured 10 question survey was developed

• Mixed methods approach
  • Forced choice and open ended questions
  • Likert scale analyzed using descriptive statistics
  • Comments analyzed using descriptive content analysis
FINDINGS

Was Flipped Content What You Needed for Practice?

- Extremely Worthwhile: 60%
- Very Worthwhile: 40%
FINDINGS

Usefulness of Reading and Answering Questions Prior to Class

- Extremely Worthwhile: 65%
- Very Worthwhile: 35%
FINDINGS

- Regarding Journal Article Questions
  - More than one answer acceptable

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<tbody>
<tr>
<td>Would like more questions</td>
<td>15%</td>
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<tr>
<td>Would like less questions</td>
<td>0%</td>
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<tr>
<td>Questions were too easy</td>
<td>0%</td>
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<td>Questions were too hard</td>
<td>10%</td>
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<tr>
<td>Level of questions were just right</td>
<td>85%</td>
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FINDINGS

Satisfaction with Case Scenarios

- Extremely Worthwhile: 70%
- Very Worthwhile: 15%
- Moderately Worthwhile: 10%
- Waste of Time: 5%
FINDINGS

Rating of Online Lectures

- Perfect amount of online lectures: 35%
- Would have liked more online lectures: 45%
- Would have liked less online lectures: 5%
- Would like to take the whole class online: 10%
- I would rather be in class: 5%

Would have liked more online lectures is the most common response.
DISCUSSION

- Flipped model was an overwhelming success
- Students took charge of their own learning
- Real life, meaningful experiences were discussed which engaged students
- More time spent on application of knowledge allowed faculty to better understand errors in critical thinking and better assess student strengths and weaknesses
LESSONS LEARNED

• Requires considerable faculty preparation time
• Requires faculty to consider new ways of teaching
• Faculty must have strong academic and clinical backgrounds to help students apply new knowledge
• Purchased case scenarios need refining to address local culture
• Requires IT support for both faculty and students as well as good IT infrastructure
• IT glitches can cause major student frustration
“It seems almost certain that instructional videos, interactive simulations, and yet-to-be-dreamed-up online tools will continue to multiply. But who will control these tools and whether they will fulfill their potential remains to be seen.”

REFERENCES


