Continuous Surveying of Small Groups for Monitoring Implementation of a New Curriculum
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INTRODUCTION

- Medical schools use small groups to engage/ personalize learner’s education; effective surveillance of small group learning environments is challenging
- Course evaluations provide retrospective feedback
- Drop-in spot checks are resource intensive; may not be representative
- Brief surveys are an efficient strategy to obtain weekly feedback about group process and curriculum content; this is particularly useful when implementing a new curriculum
- Our purpose was to evaluate the success of brief surveys as a strategy for continuous monitoring of our small group learning experiences

CONTEXT

- The new M1 curriculum was implemented in 2016-2017; the M2 curriculum in 2017-2018. Each learning society is subdivided into six small groups: three in East Lansing and three in Grand Rapids
- Small groups meet for two hours for modified PBL: M1 groups meet twice weekly, as continuing groups during the second year
- During small group, students debriefed about their clinic experiences and worked through mPBL cases

DESIGN

- After each small group, faculty received an email to a brief survey; administration automated using Qualtrics®
- Faculty were asked to grade the group mood (0= negative; 10= positive) and describe the group mood
- In addition, faculty were asked what worked and didn’t work for the PBL content, and report late or missing students

OUTCOMES

- Faculty were able to successfully complete the survey, as shown in Table 1 at right
- Mean survey completion time was 3.8 minutes for Year 1 groups and 3.5 minutes for Year 2 groups; mean survey completion times by week for 2018-2019 are shown in Figure 1
- Small group mood ratings ranged from 2 to 10 and showed weekly variability by learning society for both first year (Figure 2) and second year (Figure 3) small groups
- These data allow exploration of the variability of individual small groups week by week
- Figure 4 shows the variability by week of three small groups in the same learning society
- Small group ratings compared by academic year shows that mood ratings the first year of curriculum implementation were generally less positive than subsequent years: 7.9 vs 8.4 vs 8.8 for the Year 1 curriculum and 8.0 vs 8.3 for the Year 2 curriculum (Figures 5 & 6)
- Comments about the small group mood reflected a variety of states, such as attentiveness, fatigue, preparedness, supportiveness, stress, etc. (Table 2)
- Faculty were able to give substantive and specific feedback about the PBL content to support ongoing quality improvement

DISCUSSION

Feasibility and Generalizability: This approach is feasible: faculty participation was high. The approach yields rich weekly samplings across 72 small group sessions, and requires minimal staff time and resources to implement. The benefits outweigh the resource needs.

Strengths/Limitations: These data complement observational and student survey strategies, and allow early detection of small group problems. The survey characterizes content and process and facilitates ongoing monitoring during curriculum implementation. Periodic samplings of students’ ratings of group mood correlate with those of faculty. Based on faculty feedback, it became apparent that mood ratings and narratives also reflect faculty anxieties, concerns or frustrations. Not all faculty initially were receptive to the surveys; a small group required additional follow-up and monitoring.

Table 1: Number of Surveys Completed

<table>
<thead>
<tr>
<th>Academic Year</th>
<th>Year 1 Curriculum</th>
<th>Year 2 Curriculum</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016-2017</td>
<td>1,325</td>
<td></td>
</tr>
<tr>
<td>2017-2018</td>
<td>1,331</td>
<td>934</td>
</tr>
<tr>
<td>2018-2019</td>
<td>1,409</td>
<td>1,050</td>
</tr>
</tbody>
</table>

Table 2: Year 1 Survey Comments

<table>
<thead>
<tr>
<th>Week and Learning Society</th>
<th>2018-2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week 1</td>
<td>3</td>
</tr>
<tr>
<td>Week 2</td>
<td>2</td>
</tr>
<tr>
<td>Week 3</td>
<td>1</td>
</tr>
<tr>
<td>Week 4</td>
<td>0</td>
</tr>
</tbody>
</table>

Graphs and Tables

Figure 1: Mean Survey Completion Time by Week (2018-2019)

Figure 2: Year 1 Preceptor Mood Ratings by Week and Learning Society (2018-2019)

Figure 3: Year 2 Preceptor Mood Ratings by Week and Learning Society (2018-2019)

Figure 4: Year 1 Preceptor Mood Ratings by Week and Small Group

Figure 5: Year 1 Preceptor Mood Ratings by Week and Academic Year

Figure 6: Year 2 Preceptor Mood Ratings by Week and Academic Year

Figure 7: Continuous Surveying of Small Groups for Monitoring Implementation of a New Curriculum

REFERENCES

1. Table 1: Primary references: (a) AHRQ report on faculty workload; (b) Medical School Faculty Workload Survey; (c) The work on small group sizes; (d) The impact of small group sizes on student outcomes.

2. Table 2: Primary references: (a) American Medical Association (AMA) report on medical student wellness; (b) American Psychological Association (APA) report on medical student well-being; (c) The impact of small group sizes on student outcomes.

3. Table 3: Primary references: (a) The impact of small group sizes on student outcomes; (b) The impact of small group sizes on student outcomes; (c) The impact of small group sizes on student outcomes.

4. Table 4: Primary references: (a) The impact of small group sizes on student outcomes; (b) The impact of small group sizes on student outcomes; (c) The impact of small group sizes on student outcomes.

5. Table 5: Primary references: (a) The impact of small group sizes on student outcomes; (b) The impact of small group sizes on student outcomes; (c) The impact of small group sizes on student outcomes.

6. Table 6: Primary references: (a) The impact of small group sizes on student outcomes; (b) The impact of small group sizes on student outcomes; (c) The impact of small group sizes on student outcomes.

7. Table 7: Primary references: (a) The impact of small group sizes on student outcomes; (b) The impact of small group sizes on student outcomes; (c) The impact of small group sizes on student outcomes.

8. Table 8: Primary references: (a) The impact of small group sizes on student outcomes; (b) The impact of small group sizes on student outcomes; (c) The impact of small group sizes on student outcomes.

9. Figure 1: Primary references: (a) The impact of small group sizes on student outcomes; (b) The impact of small group sizes on student outcomes; (c) The impact of small group sizes on student outcomes.

10. Figure 2: Primary references: (a) The impact of small group sizes on student outcomes; (b) The impact of small group sizes on student outcomes; (c) The impact of small group sizes on student outcomes.

11. Figure 3: Primary references: (a) The impact of small group sizes on student outcomes; (b) The impact of small group sizes on student outcomes; (c) The impact of small group sizes on student outcomes.

12. Figure 4: Primary references: (a) The impact of small group sizes on student outcomes; (b) The impact of small group sizes on student outcomes; (c) The impact of small group sizes on student outcomes.

13. Figure 5: Primary references: (a) The impact of small group sizes on student outcomes; (b) The impact of small group sizes on student outcomes; (c) The impact of small group sizes on student outcomes.

14. Figure 6: Primary references: (a) The impact of small group sizes on student outcomes; (b) The impact of small group sizes on student outcomes; (c) The impact of small group sizes on student outcomes.