Collaborative Testing in General Nutrition
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Background
• Collaborative testing can help improve performance on assessments, improve retention of information, reduce test anxiety, and boost students’ perception of assessments.
• Material presented in NFS 207 and NFS 210 focuses on factors (environmental, food, & lifestyle) that influence the development of interventions.

Purpose
• The aim of this project was to enhance and enrich the understanding of factors that affect change and underscore wellness in a diverse population.
• In an effort to achieve this goal, collaborative testing was used to:
  1. Improve long-term information retention
  2. Decrease student test anxiety
  3. Improve student perception of intrinsic value of course material.

Methods
Collaborative Testing Format

Traditional Testing Format | Collaborative Testing Format
• General Nutrition | • Applied General Nutrition
• NFS 207; n = 84 | • NFS 210; n = 49
• Non-majors (introductory) | • Nutrition majors (required)
• Lecture only | • Lecture & lab

*Both course were taught by the same instructor

• Exam scores were compared between groups to assess performance (Exams 1-3) and retention (Exam 4-cumulative).
• Self-reported test anxiety scores at the beginning and end of each exam were compared (“Rate your test anxiety on a scale of 1-5”).
• Motivated Strategies for Learning Questionnaire scores were compared to assess test anxiety & intrinsic value (3 time points not presented here).

Preliminary Results

<table>
<thead>
<tr>
<th>Exam</th>
<th>Exam 1</th>
<th>Exam 2</th>
<th>Exam 3</th>
<th>Exam 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>NFS 207</td>
<td>Traditional Testing</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Individual</td>
<td>79.1 ± 10.9</td>
<td>73.0 ± 17.7</td>
<td>70.7 ± 18.9</td>
<td>75.1 ± 18.3</td>
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<tr>
<td>NFS 210</td>
<td>Collaborative Testing</td>
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</tr>
<tr>
<td>Individual</td>
<td>83.7 ± 14.2</td>
<td>78.9 ± 14.5</td>
<td>85.7 ± 13.7</td>
<td>80.9 ± 12.7</td>
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<tr>
<td><em>p value</em></td>
<td>0.039*</td>
<td>0.050*</td>
<td>0.000*</td>
<td>0.050*</td>
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</tbody>
</table>

• A two-way mixed ANOVA (Testing Format (2) x Exam (4)) revealed a significant main effects for Testing Format (p < 0.05), Exam (p < 0.05) and their interaction (p < 0.05).
• Scores were better using the collaborative testing format.

Conclusion
• Collaborative testing helped improve student performance on assessments and retention of information, despite not reducing test anxiety.
• Additionally, students reported liking the testing format (75%), recommended continuing their use in NFS 210 (66%), and expressed an interest in implementing them in other courses (74%).