Student Attendance and Academic Performance in Undergraduate Animal Science Courses that include Laboratory Exercises

Kyle J. Stutts, Marcy M. Beverly, Stanley F. Kelley, Matt L. McMillan, Alisha N. Bullion, and Lesley A. Rakowitz

Department of Agricultural and Industrial Sciences
Sam Houston State University

Introduction

It is commonly assumed that university students benefit from attending lecture. In the past decade, a number of researchers have examined the relationship between students’ attendance, or absenteeism, and academic performance, generally finding that attendance has an effect on academic achievement. Previous research at SHSU indicates that attendance, gender, classification, and major all have an effect on final grade outcome in undergraduate animal science courses. The objective of this study was to evaluate the attendance and performance in animal science courses that consisted of both lecture and laboratory exercises versus those that were lecture-only.

Materials and Methods

• Data collected during the 16-week fall and spring semesters 2007 – 2009
• Evaluated 2,009 students enrolled in 30 different undergraduate animal science courses
• Courses were taught by six different faculty members
• Data collected included:
  • Classification
  • Attendance
  • Final course grade

Results

• Overall, students in courses that included laboratories had a higher (P<0.01) mean number of absences (4.0) than students in lecture-only courses (3.5)
• Freshmen and sophomores had a higher (P<0.03) mean final course grade in lecture-only courses
• Juniors and seniors had a higher (P<0.03) mean final course grade in courses that included laboratories
• Freshmen and sophomore students had a higher (P<0.01) mean number of absences in courses that included laboratories
• There was no difference in mean number of absences for juniors and seniors between the two course types

Conclusions

• Attendance
  • Freshmen and sophomores had a lower mean number of absences in lecture-only courses
  • There was no difference in mean number of absences between lecture-only courses and courses that included laboratory exercises for juniors and seniors

• Grades
  • Freshmen and sophomores had higher course grades in lecture-only courses
  • Juniors and seniors had higher course grades in courses that included laboratories

Mean Number of Absences

<table>
<thead>
<tr>
<th>Course Type</th>
<th>Freshman</th>
<th>Sophomore</th>
<th>Junior</th>
<th>Senior</th>
<th>Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lab</td>
<td>4.0</td>
<td>3.5</td>
<td>3.8</td>
<td>3.6</td>
<td>3.8</td>
</tr>
<tr>
<td>Lecture</td>
<td>4.2</td>
<td>3.5</td>
<td>3.7</td>
<td>3.7</td>
<td>3.7</td>
</tr>
</tbody>
</table>

Mean Final Course Grade

<table>
<thead>
<tr>
<th>Course Type</th>
<th>Freshman</th>
<th>Sophomore</th>
<th>Junior</th>
<th>Senior</th>
<th>Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lab</td>
<td>73.5</td>
<td>72.0</td>
<td>73.8</td>
<td>73.6</td>
<td>73.6</td>
</tr>
<tr>
<td>Lecture</td>
<td>72.0</td>
<td>71.5</td>
<td>73.3</td>
<td>73.2</td>
<td>73.2</td>
</tr>
</tbody>
</table>