The Importance of Attendance in an Introductory Textile Science Course

Sara Marcketti  
*Iowa State University*, sbb@iastate.edu

Xinxin Wang  
*Iowa State University*

Kate Greder  
*Iowa State University*

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Abstract
This article discusses a survey conducted to examine the complaints and struggles of students in an introductory textile science course at Iowa State University. The survey was given to students prior to the final examination and included questions related to the Grade Point Average (GPA) as well as study habits. The study revealed the correlation between examination grade and seating location.

Comments
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At Iowa State University, the introductory textile science course is a required 4-credit class for all undergraduate students enrolled in the Apparel, Merchandising, and Design Program. Course objectives include the memorization of factual information as well as application of student knowledge in a hands-on laboratory environment. The hybrid course consists of online lectures with corresponding weekly quizzes and twice per week face-to-face classroom meetings for individual and group assignments.

Frustrated by a perceived gap between students who easily comprehended course material and those who complained and struggled, the instructor implemented an exploratory survey to better understand possible reasons.

The survey was given to students immediately prior to the final exam. Completion earned the students two extra credit points on their examination grade. Survey questions included standard multiple-choice demographic questions related to GPA as well as study habit questions including the following:

- When did you begin studying for the exam?
- How did you study?
- Where do you physically sit in the textile science classroom?

In the two semesters the survey was administered, the demographic results ($n = 118$) indicated that student GPAs were primarily in the A ($n = 41, 35\%$) and B ($n = 37, 32\%$) range. The majority of the students in the class were enrolled in the course for the first time ($n = 107, 91\%$). Approximately $64\%$ ($n = 75$) of the students had previous sewing experience. More than half of the students maintained zero or one absence ($n = 73, 62\%$) with $38\%$ ($n = 45$) missing two or more class sessions.

On the final exam, students scored in the A ($n = 33, 28\%$), B ($n = 37, 32\%$), and C ($n = 29, 22\%$) ranges.
and D (n = 19, 15%) ranges. A majority of students studied for the exam for 1 week prior to the exam (n = 71; 60%). Twenty percent (n = 24) studied from 2-3 weeks before the exam. Twelve percent (n = 14) studied the night before the test, with the remaining students studying since the previous exam, which was approximately 1 month earlier.

Nearly three-quarters of the students stated they studied using the textbook, the lab manual, and online course material. Less popular methods of studying included making flash cards (n = 36, 40%) and personal study guides (n = 30, 25%). Students stated they studied course material by themselves (n = 110, 93%) and with fellow classmates (n = 51, 43%).

The classroom in which the introductory textile science class is taught is a typical teacher-focused setting, in which seven rows of students, ten rows deep sit in desks facing the instructor, computer, and projector. Forty percent of students (n = 46) stated that they preferred to sit in the front three rows, 33% stated they preferred to sit in the middle four rows (n = 41), and 26% (n = 26) stated they preferred to sit in the back three rows of the classroom.

Results of Pearson correlations between exam grade and time to begin studying revealed no significant relationship. However, results of Pearson correlations between exam grade and attendance record indicated a significant positive correlation (p < .01, r = .43). Likewise, for attendance record and grade point average (p < .01, r = .32). The relationship between exam grade and seating location was positively, significantly correlated (p < .01, r = .20). Pearson correlation between exam grade and previous sewing experience also was positively significant (p < .01, r = .20).

Results of this exploratory study yield several discussion points. Although there was no relationship between time spent studying and exam grade, there were significant positive relationships between exam grade and attendance and attendance and GPA. This finding supports previous research that attendance is a better indicator of student success in college/university than any other known predictor of academic performance, including high school GPA, SAT scores, study habits, or study skills (Crede, Roch, & Kiesczynka, 2010). It is believed that in-class work allows opportunities for difficult course material to be dissected by teacher and student working collaboratively (Carnegie Foundation, 1998). Instructors can record, encourage, and reward attendance through a plethora of strategies, including sign-in sheets, personal response systems through smart phones and “clickers,” and randomly collected in-class activities and quizzes (Golding, 2011). In K-12 settings, incentives from positive comments to raffle-drawings of laptops have been offered to increase student attendance (Attendancecounts.org, 2012).

Exam grade and seating location also were positively correlated. Researchers have found significant effects between seat location and students’ attendance, grades, and beliefs about coursework (Benedict & Hoag, 2004; Perkins & Wieman, 2005). Based on this finding, instructors may decide to rotate seating so that each student has the opportunity to sit in the “best” front seats in the classroom and that no student is allowed to “hide” in the back of the classroom.

The positive relationship between sewing experience and exam grade may suggest that students with experience touching fabric may have more baseline knowledge of the textile science material (Kadolph, 2010). Previous experience with sewing also may indicate a more serious attitude and dedication to learning the textile science material rather than just a passing interest in the increasingly popular field (Kadolph & Meyer, 2005). Based on this finding, as an introductory assignment, instructors could suggest students visit their local fabric shop and identify specific types of fibers and fabrics. For example, students...
could be asked to locate a 100% wool fabric, a fiber blend, a fabric made with only synthetic fibers, a knit, a woven, and a compound fabric. This project would ensure that students have had at least a cursory feeling of the textile materials that they will learn more about through class.

The results of this study have been shared by the instructor with future classes. Many students express surprise at the relationship between attendance and grades. It is the researcher's desire that, buoyed by the provision of concrete evidence rather than anecdotal information, students will be more likely to attend class regularly.

To expand upon this study, it is suggested that researchers continue to examine students' study habit skills and test performance. A diverse sampling of courses within the family and consumer sciences discipline also will add to the discussion.

Pre-PAC is the KEY to enhancing program recognition by allowing the program to:

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Point of View (continued from page 6) — Carolyn W. Jackson

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Individuals are encouraged to learn more about the assessment system's data-reporting capabilities and gain valuable insight into how the results can be maximized to advocate at the local and state levels and to guide decisions regarding funding, curriculum and instructional improvements, and overall program effectiveness.

Point of View (continued from page 7) — Sue Buck

using it to tell our story, we can influence the decision-makers who insist on validating evidence that proves it.

As the educational standards and needs of the nation evolve, the family & consumer sciences profession and AAFCS must continue to communicate how our field remains a needed and valued partner in providing a quality educational experience. That experience develops the life and career preparation skills of our secondary and post-secondary students for the future—a solid pathway to a bright future for our nation and the world.

References


