Philadelphia College of Osteopathic Medicine

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Optimizing Student Use of Quiz Questions as a Learning Tool

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Maximizing student use of quiz questions as a learning tool

CAMPUS PCOM

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Background and Purpose

Students often utilize both commercial testing banks and faculty-generated questions to prepare for exams. To improve student exam performance, students use question banks to quiz themselves at various intervals. Through this process, students can utilize the testing effect to improve both understanding and retention of session content. The goal at PCOM Georgia is to use question banks as a learning tool in all disciplines. However, a major challenge is aligning commercial and faculty-generated questions with session learning objectives. By aligning both sets of questions, it is anticipated that students will be able to generate practice exam questions relevant to session content and improve their long term retention of key concepts. The goal of this study is to change student behavior in using questions as a learning tool, make intuitive question searching at the correct level, and align commercial and professor-written question banks to maximize their use.

Step 1 Step 2 Step 3 Future Step 5

ming and planning phase. Primary survey sent out to PCOM Georgia students One first year pharmacy course was selected and Pilot practice quizzes developed combining Exam Master questions Continue with pilot course combining two years of faculty-generated questions. Expand

Brainstorming and planning phase.

IRB applied for and received.

Primary survey sent out to PCOM Georgia students facing a final comprehensive exam and to faculty

One first year pharmacy course was selected and faculty-generated questions were entered into Exam Master

Pilot practice quizzes developed combining Exam Master questions with faculty-generated questions. A follow-up survey was sent.

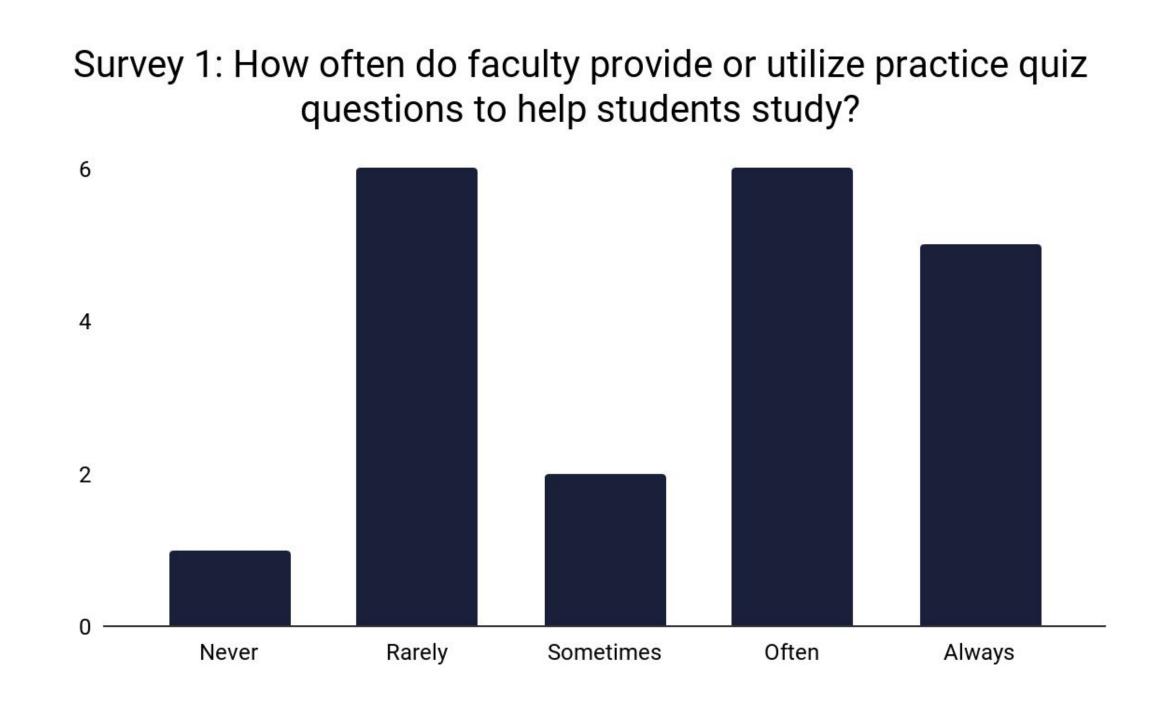
Continue with pilot course combining two years of faculty-generated questions. Expand program to another course, complete with both faculty- and student- generated questions

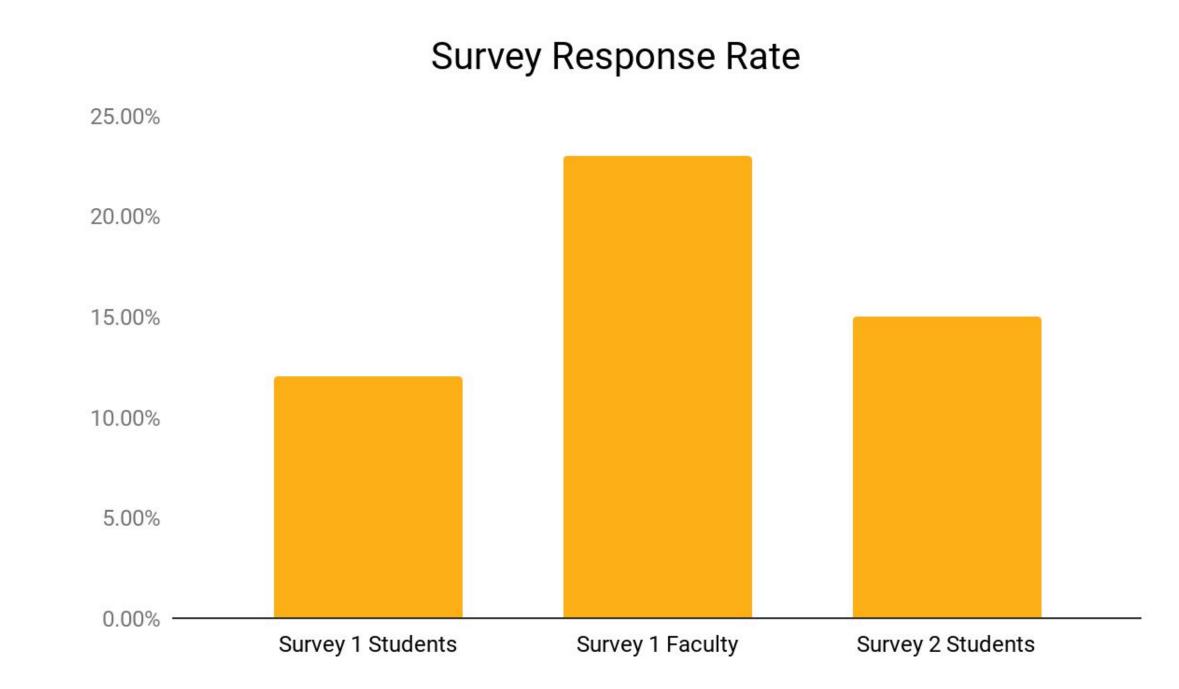
Methods

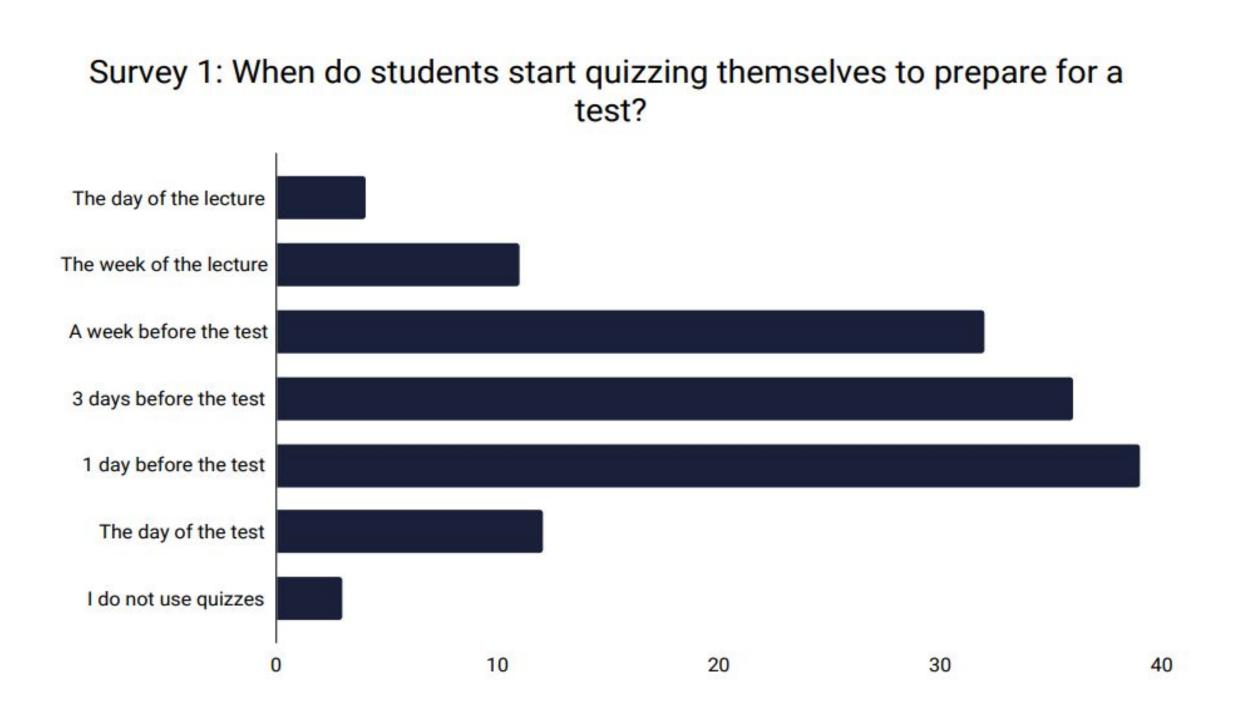
A developmental model was created combining faculty-generated questions with commercial question bank questions. Three surveys were sent out to assess perceptions of question bank utilization. The first two surveys were sent out simultaneously, one to faculty and one to students, to assess how practice questions were used for study purposes. Following the developmental model, a pilot study was created using two practice quizzes with faculty-generated practice questions for a pharmacy anatomy course. After the completion of the pharmacy anatomy course, the third survey was sent out to pharmacy students to assess their perception of the utility of practice quizzes and to assess whether student utilization of quizzes had changed.

Results

Twenty-three percent of faculty responded to the survey, indicating that most faculty create their own questions, but do not direct students to use commercial question banks. Seventy-two students (12.04% response rate) responded to the first



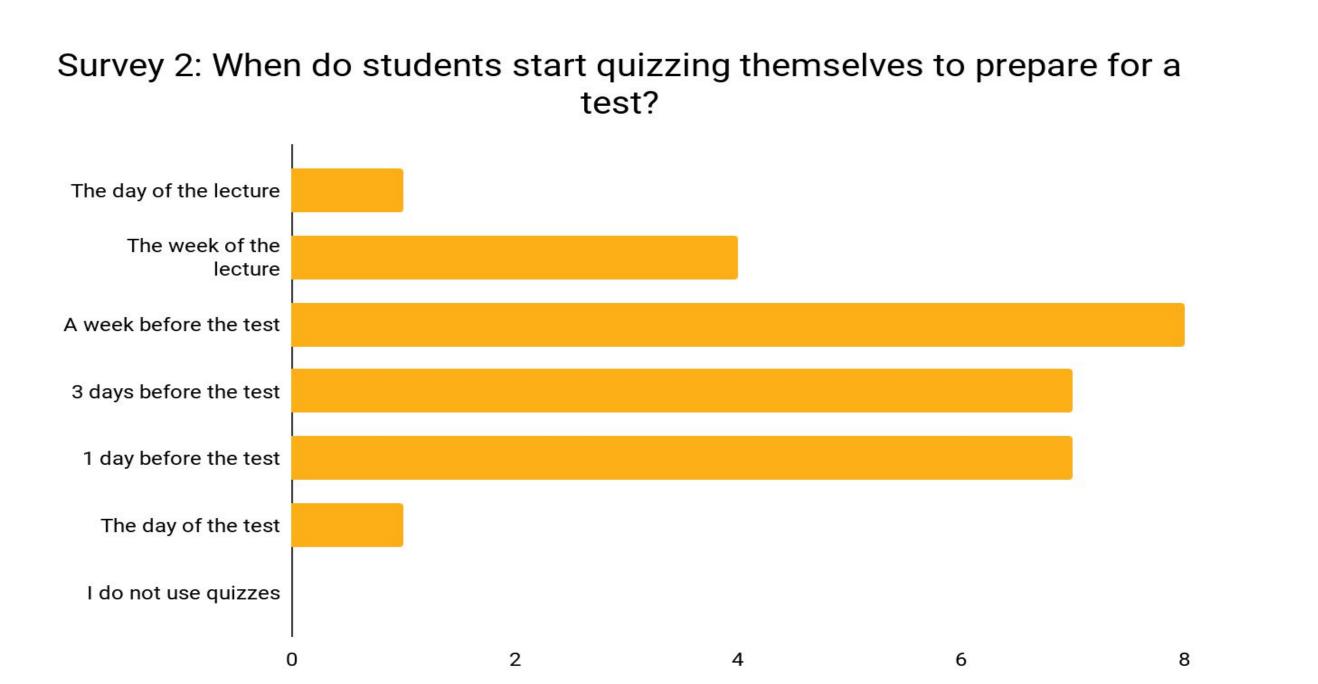


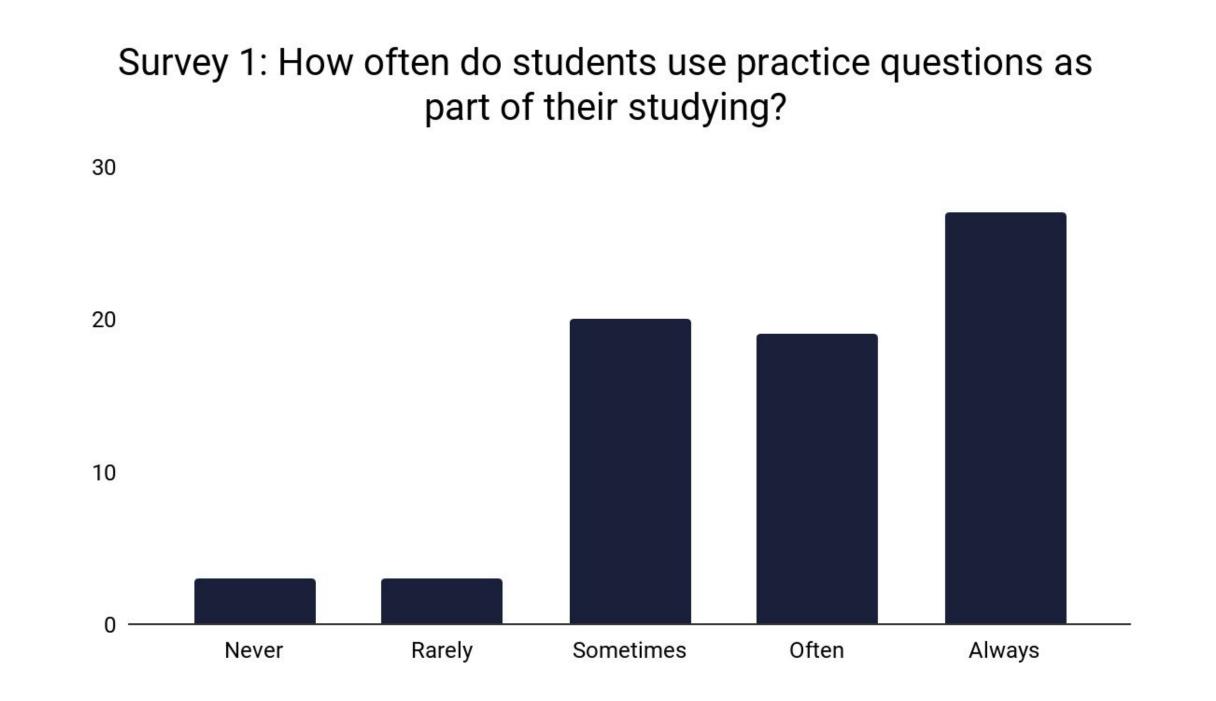


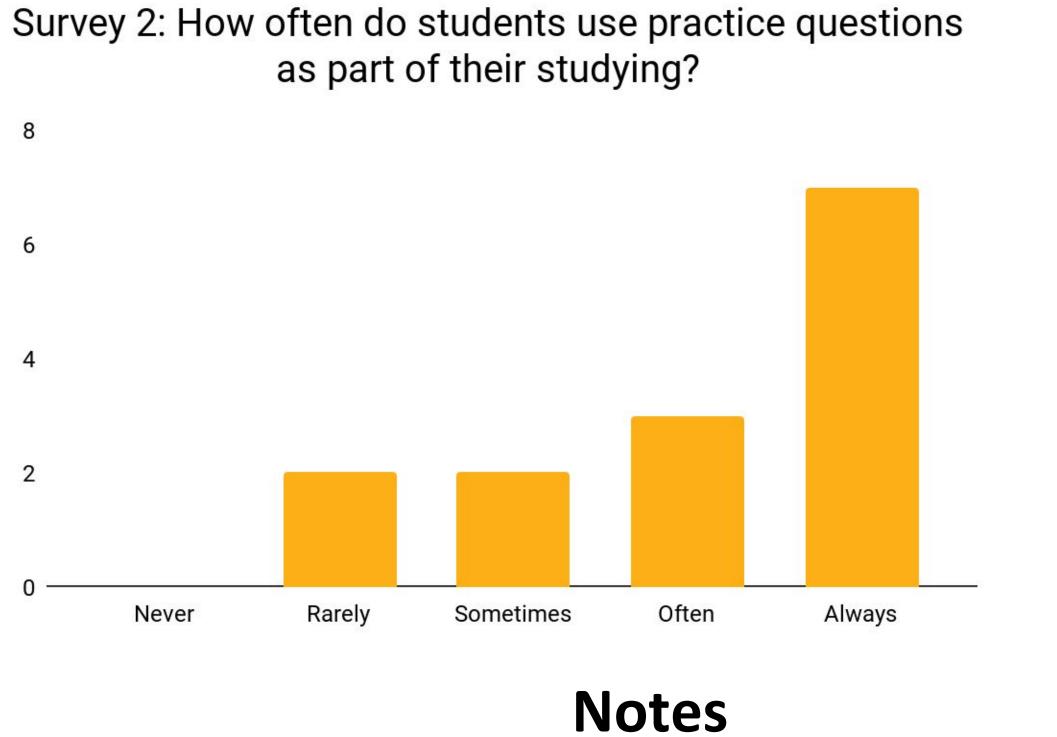
Implications/Discussion

The initial survey showed students may not get the full benefit of their study strategies if they do not quiz themselves early enough. However, the curated set of progressive questions helped students incorporate question banks into their studying. Additionally, they used the question banks to start studying more effectively by quizzing themselves earlier. Overall, this study supports the utility of faculty-developed question banks as part of student learning strategies to improve learning outcomes.

survey, indicating that 53% of students use faculty provided questions while 40% use commercial question banks and 34% use both. Most students reported using question banks to study the week before a test, three days before, or the day before the test. The first survey indicates that roughly 15% and 5.6% of students quiz themselves the same week of the lecture and the day of the lecture, respectively. In comparison, the post-survey after the pilot study with 15% response rate demonstrates that students began studying earlier using quiz questions. The post-survey indicates 28.6% and 7.1% of students in the pilot study test themselves the week of the lecture and the day of the lecture, respectively. The percentage of students who quizzed themselves a week before the test also jumped from 44.4% to 57.1%. Additionally, in the original survey, only 37.5% of students said that they always incorporate practice questions as part of their studying. In the follow up survey, this jumped to 50%.







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If you'd like to continue the dialogue, please contact us at: skyebi@pcom.edu, meghandi@pcom.edu, jiehyunle@pcom.edu, and dennispe@pcom.edu