

## Case Study

# Improving Study Skills And Helping Students Succeed On NCLEX

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### SUMMARY OF FINDINGS

- prepU helped students with their study skills.
- Practicing in prepU gave students frequent exposure to different types of questions.
- Students liked the challenge of getting to higher mastery levels.
- Those who practiced in prepU ended up doing better on unit exams.
- There was a 97% NCLEX pass rate with students who used prepU and were required to reach a ML of 5.

### Course

In the spring semester I taught Med Surg along with the Smeltzer textbook. There were 88 students in the course and they were all 7th semester students. The course is mostly lecture—four hours per week with an additional 16 hours of

clinical training in the hospital. I co-teach the course with two other faculty members and we have five faculty altogether who mentor the students in smaller groups. During each of their courses, the students take a HESI exam aligned to the content of the course.

### Course Grading Policies and Assessment

Course grades are made up of:

- Six unit exams (80% of the grade)
- Final Exam (20 % of the grade).

### prepU Implementation

We had just started our mentoring program and our sales rep asked me if I was interested in prepU. I am already familiar with the research on the benefits of frequent self-quizzing and so I was interested in trying it. I love that I can monitor progress, that prepU offers rationales to students, and that it's a great form of remediation and teaching.



I started using it and I got hooked! prepU gives me great feedback.

I don't offer students any points for prepU, but they are encouraged to use it and to get to a certain mastery level. The most difficult thing for me is to "sell" the program to my students. This is a high-risk group and I find it's hard to get them to try anything and to even get them in to take their first quiz. Once students get in and start using prepU, I feel like it really increases their knowledge and also their preparation for class.

Students in this course struggle with test-taking skills. They can't really read questions. I give the analogy that you can learn basketball skills, but you really need to play the game and play it a lot to make sure you know how to use those skills. Students tend to take too long on each question. They have difficulty answering the alternate-format questions along with the priority-setting questions. They just have not mastered those skills. prepU is helpful in this area as it provides the students the opportunity to practice, gives them more time on task, and allows them to practice often. Students also struggle with time management and so I like that prepU is something that they can access anywhere they have access to a computer and can practice a little every day.

I have been looking at the student data in prepU—in particular the statistics for each student—to see how many questions they have answered and what their mastery level is. We encourage students to aim for a mastery level of 6 and if I look at the data and if students are not answering questions, I will email them and remind them. If students do poorly on exams, I will also email them and remind them to go into prepU and take some quizzes. I can also check before I go into class to see if there are any areas where lots of students are having difficulty and then I can emphasize those in my teaching.

One student who had done poorly on an exam came to see me and said he had done everything he was supposed to do. But maybe there were too many resources for him. I said stop everything else and just go into prepU and do some questions each day. Try and get to a mastery level of 6. By the next week, this student was at a mastery level of 8 and by the time of the next unit exam he had answered 2,000 questions! And his grade went from a 74 to an 84. And he stayed in the mid-80s for the rest of the semester—the only change he made was using prepU. When he took one of the HESI exams, he scored a 702. I had hoped for a higher score, but he was so happy. He told me that he had been doing so much worse before that, so for him to get a 702 was great!

Feedback from students was very positive—they particularly liked the adaptivity of the system. They see the difference between prepU and the NCLEX 4,000 product we have also used at our school. With the NCLEX 4,000 product, students can get frustrated as they see high-level questions when they aren't ready for them. They can see that with prepU, you keep improving and seeing more difficult questions. They also get competitive with their classmates. They like the challenge and want to score higher. Being able to see the class average is also a motivating factor as they want to compete to get a higher mastery levels.

## Findings

Those students who used prepU really found the value in it. As we were only encouraging them to use it and not offering any course credit, some people didn't use it. Those who did use it, I think ended up doing better. I had three students in my mentoring group who were struggling. One dropped the course and when I looked, she hadn't answered any questions in prepU. The other two who didn't use prepU also ended up doing poorly in the course. Those who were at a mastery level of 6 or higher ended up doing better on the unit exams.

Last summer, we had a group of students who had not achieved the required benchmark scores on their HESI exams. So we piloted a program where we identified 10 areas where the students were weak and we had them reach at least a mastery level of 5 in those areas. All but two of the students made the target. That group of students just took their boards and we had a very high pass rate (97%).

Table 1: Student Usage Data

Overall Usage Data: Nursing 400 Spring 2012	
Number of Students	77
Students who've taken a quiz:	77 (100%)
Quizzes taken:	9,090
Average number of quizzes: (among those who've taken quizzes)	118.1
Questions answered:	109,409
Average number of questions: (among those who've taken quizzes)	1,421
Overall average class mastery level	4.2

### Conclusions and Future Use

In the future, we are going to be using the NCLEX 10,000 product and aligning the content sections to the content of specific courses—so we will have one prepU product for all students. I think we may give students some points for using it in the future. We have previously had so many extra tools for students that it was getting to be too much, This year we are limiting the student resources to the *Billings Content Review* along with the NCLEX 10,000. I can't sing prepU's praises enough!

### Additional Data

We will be analyzing data from this course and looking at the relationships between course outcomes and prepU usage and mastery. Preliminary descriptive and correlational data are shown below (for prepU usage only).

Usage Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Number of Quizzes	77	4.00	337.00	118.0519	80.30663
Number of Questions	77	70.00	5640.00	1420.8961	1079.47528
Mastery Level	77	1.40	7.70	4.2195	1.29859
Valid N (listwise)	77				

Within prepU Correlations

		Number of Quizzes	Number of Questions	Mastery Level
Number of Quizzes	Pearson Correlation	1	.938**	.606**
	Sig. (2-tailed)		.000	.000
	N	77	77	77
Number of Questions	Pearson Correlation	.938**	1	.538**
	Sig. (2-tailed)	.000		.000
	N	77	77	77
Mastery Level	Pearson Correlation	.606**	.538**	1
	Sig. (2-tailed)	.000	.000	
	N	77	77	77

\*\* . Correlation is significant at the 0.01 level (2-tailed).

The above data indicate a significant, positive correlation between ML, number of quizzes, and number of questions answered in prepU.