

## Case Study

# Adaptive Learning Changing Teaching Approach

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Conceptual Basis for Nursing Practice | Spring 2011

### SUMMARY OF FINDINGS

- prepU helped focus remediation and increase student preparation for class.
- Students who used prepU achieved better course outcomes than those who did not.
- Students preferred studying in prepU than simply reading their book.

### Course

The course I was teaching in the spring semester was Conceptual Basis for Nursing Practice. This is a lecture course that is a new course this year. During the spring semester there were 60 students in two sections of the course. Students meet twice a week for lecture and there is also a lab component of the course. The majority of the students are sophomores and this is their first semester of nursing. The course arose from the Quality Safety Education in Nursing Initiative, which is an initiative from the Institute

of Medicine to encourage teaching of students in a way that emphasizes safety and quality in patient-centered care by educating students from a conceptual basis. The key is, students need to think more critically and see the patient as a full partner in their care and help them focus on collaboration and teamwork. This is a broader view of nursing than the more traditional approach. This is the first time that I am teaching this revised curriculum.

### Course Grading Policies and Assessment

Course grades are made up of:

- three exams each worth around 30%
- an evidence-based write-up/presentation.

Students need to get at least 77% overall on the three exams. If they do, then the grade they receive for the presentation counts toward their grade. Otherwise it does not.



Currently I am not assigning credit for using prepU, but I am thinking about that for future semesters. I assign homework and exercises for students to complete outside of class.

## prepU Implementation

As this was a pilot year for prepU, all students had access to it, but I did not assign any points for usage.

When I saw prepU with the Bloom's Taxonomy levels and the ability to export questions for tests I loved it! The knowledge that students get when they see they have made a mistake is really great.

Sometimes I need to stop and go back and look at what was taught and then I can revisit topics I need to go over again. It is also really valuable to be able to search for questions on a particular chapter or concept. This helps the students to focus their studying. And being linked to the textbook is key. I don't know off the top of my head where to send a student who is struggling with a particular concept—but prepU does.

### prepU helps:

- increase student preparation for class
- me to assess student understanding
- focus remediation
- increase student knowledge of course content
- prepare students for formal testing (such as the NCLEX).

I build my exams in prepU and then export them and print them out for the students.

Students in this course struggle with the reasoning process. They have a hard time getting away from the idea that learning is about rote memorization and that they need to really think about what they are learning. Previously, they have seen school as learn something and then forget it. Now they need to make some judgments and think about what

they are learning. They often have the tendency to want to just memorize things, but that's not enough.

My biggest challenge in this course is to change the way students think about nursing. It is a career that involves flexibility. They need to think at all levels. They need a good basis of knowledge and they not be so focused on task-oriented nursing. Nursing education used to be about the task and now it is about the partnership with the patient—a much more integrated approach.

I look at the student assessment data a lot! I see the usage of prepU increase a lot before an exam—which is what you would expect. You can tell the students who like prepU and who are engaged in it. They are using it! I encouraged them to use it this semester, but next semester it will be required.

## Findings

After the first exam, students were all over it and wanted to use prepU as they could see how helpful it was. Out of the 60 students who were in my course, 52 of them used prepU, with the average number of quizzes between 6-10.

You could tell who was using the product by looking at the grades in the class. The ones who were using prepU had higher grades.

It's so great when the students have a mastery level of 1 and then they do 200 questions and have a mastery level of 3 and prepU tells them specifically where to remediate. It's a private thing and it's between them and prepU. They can challenge themselves to do better and can do so privately.

Using prepU was a guarantee that they passed this class. The ones that used it passed and the ones who did not use it did not do as well. Some students didn't go in and engage with it, and that showed in their grades.

I found that if students answered at least 200 questions and had a mastery level of at least 3, they got at least a B+ in this class.

Students clearly valued having prepU in this course. When they got to the next course (Med Surg) they really wanted it to use with that course as well. And now they have it!

The students sometimes said they preferred prepU to their book. Doing the quizzes and trying to answer questions really helped them train their minds to reason and think more. About ½ of the NCLEX is learning to read the questions the right way and be able to think about what is being asked, and prepU was a great forum for getting used to this.

prepU was good for me as I could focus on certain levels of questions. I like to have tests made up of around 20% knowledge, 10% comprehension, and 70% application. Because many of the questions in prepU are application questions, I could use these on my tests.

## Conclusions and Future Use

prepU really changed my teaching approach. The whole thing changed me! It changed how I was thinking about the class and how I was teaching.

In the future I will use prepU more. I will build it more into my class. What I would like to do is to bring it up in class and have students see the questions and how to use it. Maybe the few people who used it were afraid and I could help them see how easy it is to use. I could do some questions with the students.

I wouldn't want to change prepU, except to add to it. I would like to be able to administer my exams to students in prepU, in the classroom. I could do this, but I would need to lock the browser so students couldn't go to the Internet and look things up.

prepU is a great tool. LWW has been incredibly supportive and helped us learn how to use prepU. It's really user-friendly, and doesn't take much to learn, but sometimes faculty can forget how to use things that they were introduced to them before the summer. And LWW has been a great resource.

Table 1

Usage Data from Nursing 2014, Spring 2011	
Number of Students	15
Students who've taken a quiz:	15 (100%)
Quizzes taken:	170
Average number of quizzes: (among those who've taken quizzes)	11.3
Questions answered:	2,363
Average number of questions: (among those who've taken quizzes)	158
Class Overall Mastery Level	2.7