

# Supplementing classroom courses on Nursing



**Web-based content and applications developed for LWW**

Lippincott Williams & Wilkins (LWW) is one of the world's leading publishers of professional health information for physicians, nurses, specialized clinicians, and students. LWW provides essential information to all categories of healthcare professionals through its wide range of books, reference textbooks, journals, and newsletters. It also includes a wide range of offerings through the media of CD-ROMs, PDAs, Medical Education portals, and via Intranets.

## THE NEED FOR E-LEARNING

*Health Assessment in Nursing* by Janet Weber, RN, EdD, is one of LWW's best-received titles in the nursing education textbook market. However, in an ongoing assessment of all its markets, LWW found that while this particular book's content was seen as very thorough and comprehensive, there was a critical gap in the availability of ancillary offerings to the book. Competitive products offered superior computer-based or Web-based material, and the lack of supplementary tools significantly affected sales in the college textbook market.

LWW therefore commissioned Tata Interactive Systems to develop Web-based content and applications that would support and complement the use of the *Health Assessment in Nursing* textbook in the college classroom setting. The program needed to be in an interesting and engaging format, with the endeavor to provide education that was application-oriented and useful, and at the same time, a pleasure to go through.

## HOW OUR SOLUTION HELPED

The instructional solution entailed the creation of five types of exercises for each module. Each type catered to specific objectives within the chapter and helped the learners get deeper insights into what they had studied in the Weber textbook. The larger aim was to teach the students practical and job-oriented skills beyond the factual and theoretical knowledge that they would have gained from the textbook. The five types of exercises developed were:



**The Weber Interactive CD was such a success that LWW launched a re-branding campaign for its Weber textbooks based on the application's learning benefits. Developed and tested completely in a span of 4 months, the Weber Interactive program provided LWW with a clear competitive edge in the textbook market.**

### 1. Structure & Function

This exercise type asked the learner to label and/or name various parts of the anatomy being studied. The learners were given a set of labels separately which they could drag and drop into the correct placeholders. The learners were scored on the number of correct or incorrect selections and a feedback report was presented to them.

### 2. Subjective Data & Nursing History

This type of interactivity was based on a simulated conversation between the learner/nurse and the patient. A case study was written in a question-answer format that approximated a real-life conversation between a nurse and a patient. For each case, the learner was presented with some background on the patient and a set of questions to ask the patient. The learner chose the order of questions to ask the patient. For each question, the program presented an answer commensurate with the particular case history. This answer was in both text and audio format, representing the patient's voice. Then the learner had to choose the next question and so forth. At each stage the learner was asked to classify the response as Objective or Subjective.

### 3. Analysis of Data

This exercise followed from the communication exercise. Here the learners were asked to make suggested nursing diagnoses for the assessments they had gone through in the communication exercise. They could choose the possible diagnosis from a list provided, depending upon the assessment. The student also classified the diagnosis as wellness, risk, or actual. For each cue or cue cluster, the student had to type in the Inference and Nursing Diagnosis and then click on a submit button. They were then presented with an ideal diagnosis that was pre-generated by the program.

#### 4. Physical Assessment

In this case, the learner was shown video clips detailing assessment methods of various body parts interspersed with photographs and a set of questions regarding the conditions shown in the photographs. The questions were either objective or in a short-answer format where the learners typed in their answer. The answers could either automatically be sent to a course administrator via mail to be graded or be compared with a sample correct answer for the students to gauge the correctness of the answer on their own. Where applicable, the photograph was replaced with or accompanied by audio.



#### 5. NCLEX-style Quiz

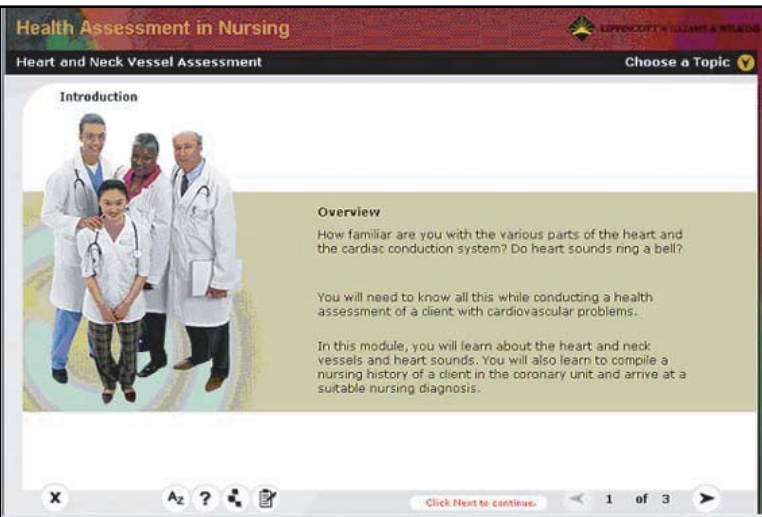
There was a set of objective question quiz at the end of each chapter covering the contents. The quiz had been developed according to the NCLEX formats as relevant to Nursing professional education and assessment. These questions were either in multiple-choice format or sequencing exercises.

### TECHNOLOGY USED

The interactive application was developed in three different formats: CD-based (stand-alone), and Web-based versions for WebCT 3.6 and Blackboard 5.0. The entire application was built in Flash MX, supplemented with Visual Basic and XML. The application was designed to be light enough to even run on Pentium II machines with only 20 MB of disk space.

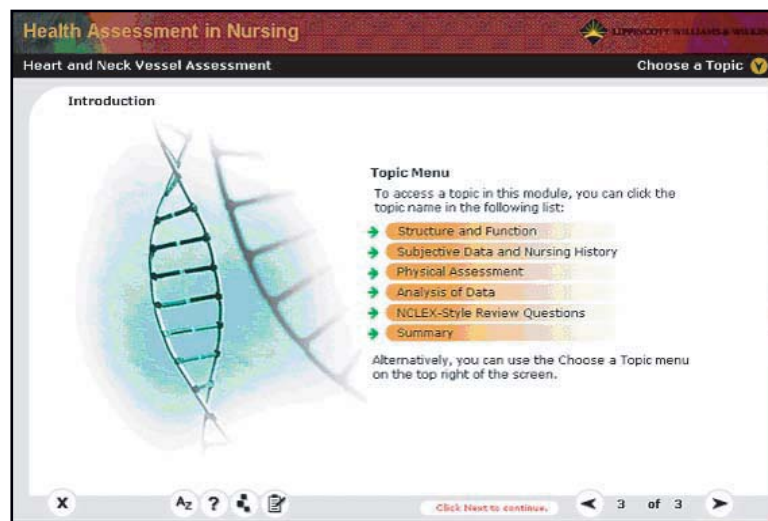
### SOME SAMPLE SCREENSHOTS

The screenshots offer a brief glimpse of the Web-based content and applications, designed for LWW. To experience our products at work, you may view our demos by registering online at [www.tatainteractive.com](http://www.tatainteractive.com).



The overview screen of the program, which gave detailed information about the concepts to be covered in the course.

The menu screen was kept simple and the learners could access the relevant topics in a module. A different topic could also be selected from a menu button on top right corner of the screen.



Screenshot of a drag and drop assessment at the end of a topic.

