UDI Principles in Practice: An Interview with Professor Dorothy Reiss

Can you make the mental leap from thinking about the requirements of archaeological fieldwork to thinking about the requirements of teaching a diverse group of college students how to navigate the Internet? Archeology involves a careful and thorough search for clues to historical data. Similarly, the Internet provides an environment in which students can conduct another type of careful and thorough search for data. Professor Dorothy Reiss of Manchester Community College used her interest in archaeology to create a teaching and assessment approach for her Computer Information Systems courses. Using the Manchester Community College homepage, which has links and a search option, Professor Reiss developed a method of teaching Internet search skills. "It's like a treasure hunt," Professor Reiss explains of the teaching task she developed for her classes. "During our class period I show the class how to get around the MCC homepage, and the kinds of things they can find there. They look for certain types of information, such as dates for registration, course prerequisites, the office phone numbers of particular people. They can find out things about the town of Manchester, the weather, parking at Bradley Airport. There are a lot of things you can do just from MCC's home page."

After this introduction to the Internet, it's time to practice. To provide an opportunity to practice their skills, each team of students creates a question that other teams can answer by searching the MCC homepage. The students demonstrate that they can navigate the site and its links. Then the students are ready to be evaluated on their mastery of the skill. The students work individually to complete Professor Reiss's treasure hunt worksheet as a quiz, completing the items by navigating the site and its links to find the answers. "You have to worry about time, you've got to cover the material," Professor Reiss notes, "but the students enjoy this."

This practical approach to teaching Internet navigation skills is a good example of the way the Principles of Universal Design for Instruction © look when they are put into practice in the college classroom. The first principle of Universal Design for Instruction, the principle of Equitable Use, involves planning and delivering instruction in ways that anticipate diversity in learners. In Professor Reiss' computer classes there is a wide range of academic interests and skill levels and cultural backgrounds among the students. "Some of these folks are returning students. They struggle to control the mouse. Others know what they are doing and need a challenge. I have students from criminal justice, from hotel/food service, early education, and special education. I have everybody from everywhere. Some just want to be there to learn on their own." Professor Reiss's treasure hunt task meets students' instructional needs across individual skill levels (also reflecting Principle 5, Tolerance for Error), and is followed by an outcome assessment that requires a high level of mastery for all students.

Professor Reiss' approach to the issues around scheduling exams and quizzes illustrates Flexibility in Use, the second Principle of Universal Design for Instruction ©. She sets course policies on make-up exams and quizzes with an awareness of the importance of balancing the instructor's needs with the needs of a diverse population of

students. “Teachers are always struggling with make ups. You’ve got 140 or 150 students total, and you need to grade papers,” she states. “But students have other jobs and often must care for siblings home from school. They are going to miss things.” What if a student misses a quiz or an exam? “There are individual cases, of course, where I’ll see about a make up. If you can’t make it that day, for whatever reason, you can talk to me about it. If you take the quiz or exam in class you can get up to 100 points on it. But otherwise you are going to be taking it at home, on your own, and you can earn up to 85 points for doing that.” Professor Reiss believes that students benefit from this incentive to complete the quiz or exam at home because they will receive feedback on their progress. “It gives them an opportunity to still have the experience,” she explains. “In addition, the opportunity to complete the quiz or exam at home provides hope and heightened confidence to students, which is so important to their self-esteem and eventual success.” Designing instruction according to the principle of Flexibility in Use includes providing for flexible methods of assessment and providing feedback about performance and progress (also reflecting Principle 3, Simple and Intuitive).

Another approach to assessment that Professor Reiss has used in her classes comes from setting course objectives and then designing instruction and assessment procedures to meet these specific learning goals. “You give out the objectives ahead of time and review them in class,” Professor Reiss explains. “Before you have the first test, you ask them to grade themselves on how confident they are that they understand this objective. You write certain test items that have to do with each of the objectives. Then you correct their papers and you see how they fared with it.” This method enables the student to compare his prediction with his actual performance, and to identify any specific objective requiring further study. Providing instruction that is Simple and Intuitive is the third principle of Universal Design for Instruction©. Providing clear expectations regarding learning objectives and providing conspicuous strategies for approaching learning are ways in which instructors like Professor Reiss put this principle of UDI into practice in their classrooms.

Professor Reiss endorses the practice of providing content in a variety of ways. “You can use various media, hands-on activities, group work,” she explains. “If it was just lecture, they might be tuning out after a while. This way they can interact with each other more.” Her Mathematics and Computer Information Systems students write papers on topics of their choice, relating the course content to their own personal interests. A list of recent paper topics ranges across an impressive array of interest areas explored by past students, including: “William H. Gates and Microsoft Corporation”; “Computers In Police Cars”; “Medical Robotics”; “Artificial Intelligence”; “Machines That Fix Machines”; “Educational Software for Preschoolers and Toddlers”; “Software and Copyright”; “Computers In Home-Based Business”; “Computers In Music Composition”. Professor Reiss provides the list of about 100 topics to the class not to limit their paper topic choices, but rather to demonstrate that whatever interest they may have is relevant to the course. “This way, when they come in to take the course, they don’t have to feel it’s going to be a boring course, or ‘it doesn’t apply to me’. I want students to realize how many different areas computers are used in, because of these small embedded chips that are used nowadays.” These practices illustrate the ninth principle of UDI, Instructional

Climate. Professor Reiss has designed her courses to be welcoming and inclusive, providing respect for diverse interests and talents among her students.

Professor Reiss's wide range of interests is expressed in creative instructional design. She is interested in exploring the uses of new media and activities as teaching tools. Professor Reiss uses the most current technology in her laboratory classroom, yet she also maintains an interest in archeology, a field of study usually associated with ancient forms of technology. How does Professor Reiss combine these two diverse interests? A clue may be found in her statement about developing the treasure hunt task for her Computer Information Systems course: "I love discovery."

If you love discovery, click below to find out more about the Principles of Universal Design for Instruction ©. http://www.facultyware.uconn.edu/files/UDI_principles.pdfpdf