

## **Effects of a video-mediated student-centered learning environment on students' understanding of plant pathology principles**

Erik-Ray Matthew S. Palomar<sup>12</sup> and Rotacio S. Gravoso<sup>2</sup>

<sup>1</sup>*Philippine Rice Research Institute, Muñoz, Nueva Ecija* and <sup>2</sup>*Department of Development Communication, Leyte State University, Baybay, Leyte, Philippines*

### **ABSTRACT**

Palomar, E. R. M. S. and R. S. Gravoso. 2006. Effects of video-mediated student-centered learning environment on students' understanding of plant pathology principles. *Ann. Trop. Res.* 28(2):32-52.

Working with the faculty of Plant Protection, a video-mediated learner-centered learning environment was designed, implemented, and evaluated in a PPrt 21 (Principles of Plant Protection) class. Students' learning outcomes, measured in terms of conceptual understanding and knowledge transfer, were compared with students in the control group who studied the same topics in a traditional learning environment.

Post-test results showed highly significant differences between the experimental and the control groups in terms of conceptual understanding and knowledge transfer, with the experimental group scoring higher than the control group.

Based on feedback, the learning environment did not only enrich students' understanding of plant diseases. It also promoted development of skills in teamwork, communicating, researching, and problem-solving. The students and the teacher suggested the use of this type of learning in other subjects.

**Keywords:** learning outcomes, student-centered learning, constructivist learning, video-mediated learning, plant pathology