



The New Learner Consortium



Virtual Laboratory for Engineering and Applied Sciences Education (EASE)

http://www.wmich.edu/mae/research_labs/vms_lab/

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Collaborating with: Muskegon Community College (Michigan, USA) and Instituto Federal de Educação, Ciência e Tecnologia do Maranhão (IFMA) in Brazil

PROJECT ABSTRACT: Our goal is to transform the way students are educated by creating a unique set of virtual reality laboratory experiments that provide an instructional scaffolding. The modules will be developed for easy adaptation and dissemination. Our goal is to reach diverse populations at a variety of sites including a research university.

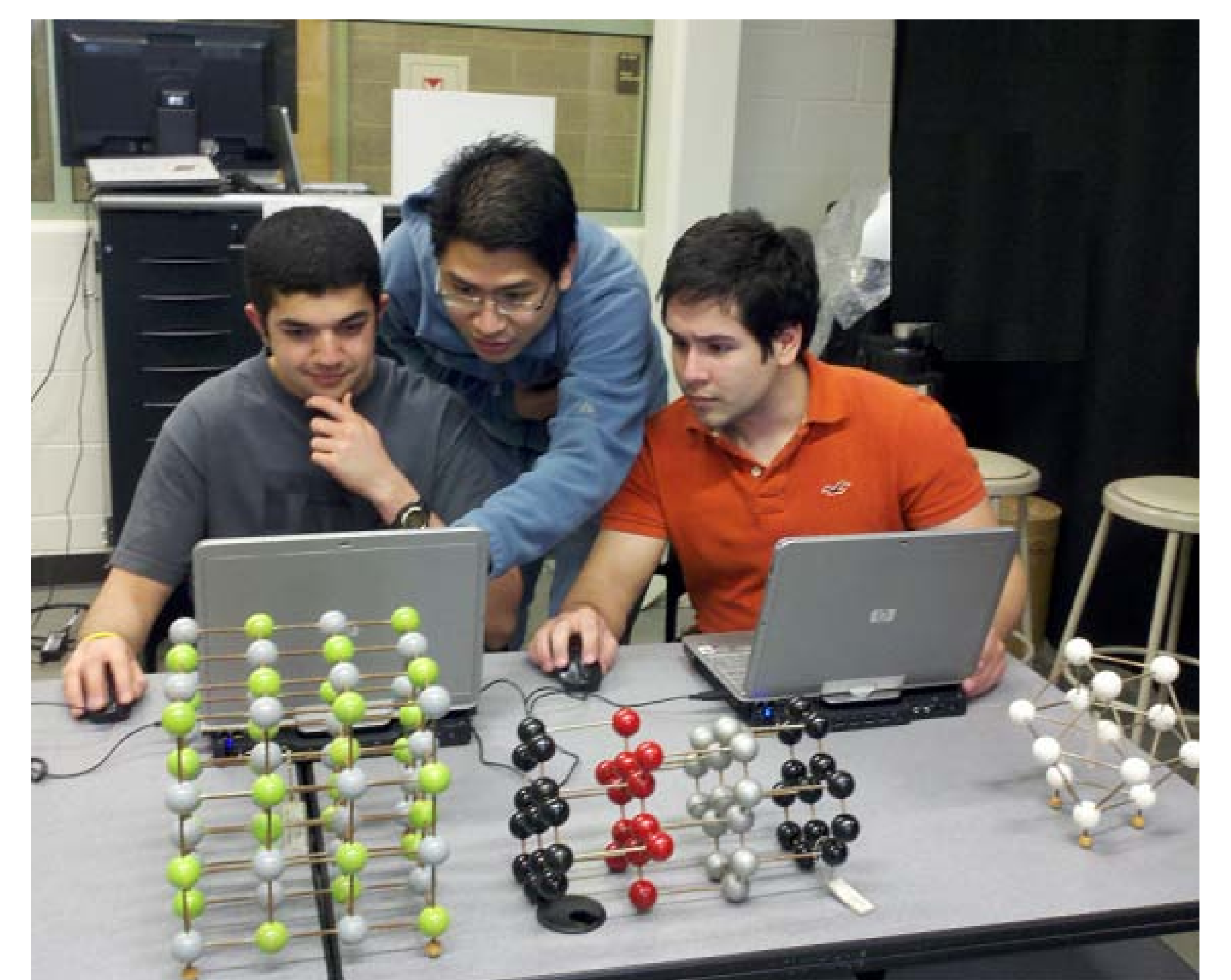


Activities: We develop a virtual 3D laboratory that aims at moving the student's learning experience from the instructional to the exploratory. The virtual reality (VR) laboratory is designed to simulate a real

hands-on approach by using the HP computer technology. Using computer graphics simulation and natural interaction with virtual 3D objects enable the student to experience the quality presentation of real environment. The HP system we received provides high-quality graphics and interaction and ease of development of new VR laboratory.

Key Outcomes and Evidence

The impact of the virtual reality simulations will be measured through surveys, observations, and interviews. Through both formative and summative means, we will be able to monitor the progress of the project and refine as needed to achieve its goals. Data collected from students who use the simulations, and a control group of students who do not have access to the simulations will provide information on the success of the project in impacting student learning, attitudes, retention, and recruiting



TAGS: 3D Virtual Reality, Diverse Populations, HP Technology, Recruitment, Retention, Scaffolding Approach to Education, STEM disciplines.