

NATALIA OMELCHENKO, and KATHLEEN LOUGHMAN, Department of Natural Sciences and Mathematics, West Liberty University, West Liberty, WV, 26074, John Marshall High School, Glen Dale, WV 26038. **Modern physiology equipment may benefit high school education.**

A growing number of studies support the superiority of active learning approach over traditional instructions and demonstrations. The active learning approach often relies on engagement of the students in problem solving activities using relatively complex equipment, including conducting experiments and observations during the laboratory sessions and performing consequent analysis of the findings. The method is widely used in the anatomy and physiology instructions in colleges, but it remains unclear if the complexity of modern physiology equipment limits its application for high schools. Three anatomy and physiology activities in cardiovascular system physiology using iWorx physiology stations were organized at John Marshall High School, WV. After the demonstrations, learning outcomes were assessed with a questionnaire (42 responses). Ninety one percent of the students indicated that the provided equipment helped them to develop better understanding of the key concepts related to the cardiac system physiology, and ninety two percent expressed interest in being engaged in research activities using these physiology stations. In conclusion, active learning strategies and modern physiology equipment can be successfully used for high school classroom instruction. This approach clearly allows better understanding of complex field of human physiology and promotes interest to research activities in the biomedical field.