



Are Online Science Courses Using LabPaqs Really as Effective as On-Campus Science Courses?

... You Betcha!

CDHE study confirms no “significant difference” to campus-based lab science learning

As recently published by WCET,* a Colorado Department of Higher Education study followed 2,395 online science students from the Colorado Community College System (CCCS) and 2,190 traditional, on-campus science students to determine the comparative effectiveness of science courses conducted fully online. The study then tracked the online science students who continued on into the state’s four-year public institutions.

This study focused on students enrolled in first year Biology, Chemistry, and Physics courses for science majors. The online students utilized “commercial science kits” to perform their courses’ lab experiments at home while the campus-based students performed science experiments in a traditional campus laboratory.

The study found no significant differences in the online vs. on-campus students’ science GPAs or in their cumulative GPAs. It concluded there was no significant difference in effectiveness between CCCS’ online science course delivery method and campus-based science course delivery methods. Further, the findings reflected that online students had similar or slightly higher overall GPAs and earned similar or higher cumulative college course credits than did their campus-based peers.

After tracking online science students who transferred into and took additional science courses at public four-year institutions, the students average science GPAs were again compared. Again there were no significant differences. The study established that CCCS online science students who performed lab experiments at home with commercial lab kits also performed just as well in science classes at four-year institutions as did the on-campus students at those institutions.

Hands-On Labs is delighted to announce that it was the supplier of the “commercial science kits” utilized by the online students tracked in this CDHE study! In fact Hands-On Labs has supplied tens of thousands of Biology, Chemistry, Physics, and other science discipline LabPaq science kits to CCCS students since 2001.

Over the past decade Hands-On Labs has accumulated a substantial quantity of similar data confirming the effectiveness of LabPaqs, yet the fact that the data came through our office left it open to suspicion. Thus it is extremely gratifying to have a large-scale, independent CDHE study confirm what we’ve been saying all along: There is no significant difference in learning by online college students who use LabPaqs to perform science experimentation at home than by students who perform their science coursework completely on campus!

Are we delighted by the CDHE’s findings? ... You betcha!

*WCET (WICHE Cooperative for Educational Technologies) was founded by the [Western Interstate Commission for Higher Education \(WICHE\)](#)

WCET article: Colorado Study finds “No Significant Difference” in Online Science Courses: http://wcetblog.wordpress.com/2012/10/18/co_nsd/