Stanford K-12 Online Learning Program's Effectiveness Confirmed by New York U

- By Dian Schaffhauser
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New York University has confirmed the effectiveness of a Stanford University-run online program designed to accelerate learning for students K-12 schools. This confirmation comes just as the program is being officially handed over to a for-profit company to offer expanded service.

The project by the Metropolitan Center for Research on Equity and the Transformation of Schools at New York U examined research on the work done by Stanford's Education Program for Gifted Youth (EPGY). "The findings in the report are clear and unequivocal: EPGY is a powerful tool with enormous potential for assisting schools in meeting the needs of individual students," the New York U report stated.

EPGY was started in spring 1990 when Stanford began offering a computer-based calculus course. When 13 students took their Calculus AB Advanced Placement exam the following year, the efficacy of the program was demonstrated. The university expanded its EPGY program to encompass additional math subjects for students in other grades as well as physics, English and computer programming. The first emphasis was on teaching gifted kids, but eventually the work expanded to focus on students who were on the low rungs of achievement as well as those who were of "average ability."

The program consists of computer-based multimedia courses with built-in tutorial support to deliver personalized instruction and accommodate individual differences in learning. Exercises in the courses push students to practice what they've learned through tasks such as answering simple knowledge-based or open response questions and conducting virtual experiments. A diagnostic component assesses the student work and provides immediate feedback in the form of tutorial help designed to mimic the behavior of a tutor and guiding the student towards the correct answer without directly stating it and then providing extra exercises to see if the tutoring help has made a difference.

The New York U examination of research done on EPGY found that the Stanford system could "accelerate varying levels of student potential." In some cases, the report noted, EPGY participants scored an average of 45 percent higher on standardized achievement tests than those outside the program.

An evaluation of Title I students (those in low-income families) found that EPGY students in third through fifth grade averaged almost 13 points higher on standardized tests. Second grade students who were in that demographic and using the EPGY program averaged 28 points higher on standardized tests. In fact, the New York research found that these students could more than double their results on standardized tests.
"When assessing a program like EPGY, it's important to examine how each educational level responds to participation," said Pedro Noguera, study co-author and professor of education at New York U as well as executive director of the Metro Center. "When reviewing EPGY, we were truly impressed by the versatility of this program. Our research found EPGY to be an invaluable learning tool for both advanced students and those who are a bit farther behind. Having access to a tool like EPGY will significantly enhance the ability of parents and educators to meet the learning needs of a broad range of students."

Stanford announced that an expanded service was scheduled to be released in 2014, led by Redbird Advanced Learning, a division of education technology company Rocket Group that has been working with the university since 2013. The institution will be transitioning the EPGY program to Redbird through summer 2014, when expanded digital courseware and services will be made available to EPGY clients.

About the Author

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