

The Shift of Online Learning Into Secondary Schools

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INTRODUCTION

Over the past decade, online and distance learning programs have become a popular method of learning within the curriculum of higher education. Many major colleges and universities now offer students some type of online or “blended” form of learning option. Tansky (2007) refers to a study by the International Data Corporation that found over 87% of four-year colleges offered distance-learning courses in 2009, up from 62% in 2003.



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However, many secondary schools are beginning to embrace the idea of distance learning possibilities for their students. Honwar (2005) noted a National Center for Education Statistics survey conducted in the 2002-2003 school year that found thousands of students were enrolled in courses conducted via the Internet or through video-audio-conferencing, with the teacher and student in separate places. Nearly 1 of every 10 public schools in the country had students enrolled in such courses (as cited in Honawar, 2005). Resmovits (2011) cites a similar survey conducted by the U.S. Department of Education in the fall and winter of the 2010-2011 school year found that 55% of 2,310 school districts had students enrolled in some form of distance learning courses, 96% of which were given at the high school level. Resmovits further notes a study by the National Center for Education Statistics, online courses had approximately 1.8 million self-reported enrollments, more than three times the amount reported in the 2004-2005 school year (Resmovits, 2011).

CASE STUDY

The Red Clay Consolidated School District in Delaware is a secondary school system that has recently developed and implemented a distance learning program offered to high school students. Beginning in 2011, the district selected two schools that would offer classes to students at the

other school via live video broadcast using state of the art technology. Each distance learning lab was equipped with the following technologies:

- two 72 inch flat-screen monitors in the front of the lab;
- front and rear high definition video camera (for broadcast mode);
- three-tiered student seating with 24 ergonomically correct swivel chairs and student work space;
- high quality microphones placed throughout student work area;
- twenty-four laptops with wireless internet connection;
- Smart Board technologies;
- document scanner/camera and image capture tools; and
- teacher podium with touchpad controls for all equipment.

Course selection and offerings for this program were based on the lack of availability at the partnering school. For example, teachers at the Conrad School of Science and Technology broadcasted courses to students located at Alexis I. du Pont High School (AIHS) that included: world history AP, sociology, and comparative government AP. Alexis I. du Pont High school teachers offered classes to Conrad students that included: statistics AP, legal process, military history, and accounting. Through the use of Blackboard's Edline Course Management System platform, teachers were easily able to collaborate

with all students and provide students with 24/7 access to all course materials.

BENEFITS TO STUDENTS

Participating students benefit from this program on several levels. Primarily, this program allows students the opportunity to enroll and complete courses that were not previously available to them. Many of the distance learning courses in this program are Advanced Placement (AP) classes that grant students college credit upon successfully completion of an examination. By taking advantage of these opportunities, students can get a head-start on their college requirements which have potential for financial savings to college-bound seniors. The Advanced Placement courses require students to successfully complete a final exam at the end of the course. The grading scale is from 1-5. Colleges and universities may accept scores beginning at level three. The results from the students that completed the AP exams for these courses are presented in Table 1.

Another opportunity for students in this program is through an agreement with Delaware Technical and Community College. Students may receive college credit for the successful completion of the Sociology course. Of the students enrolled in the 2011 Sociology course, more than 88% of the students received college credit. Furthermore, the format of these classes prepares students for the learning

Table 1. AP Exam Final Scores 2011-2012 (Distance Learning)

	Score					Total
	5	4	3	2	1	
World history	0	3	11	3	0	17
Compare Government	1	2	5	2	2	12
Statistics	0	2	3	3	9	17
Total	1	7	19	8	11	46
Percent	2.2	15.2	41.3	17.4	23.9	100.0%

communities they will experience in a higher education environment. The collaboration tools used in this program to enhance student engagement are the same tools used by many colleges and universities. The use of a learning management system has become a staple in the curriculum and learning methods in higher education.

Barbara Prillaman has taught the Sociology course in this distance learning format since the start of the program and has been instrumental in its implementation. "Distance learning is extremely beneficial for our high school students. It provides them with multiple opportunities to have a 'college' experience while still in a high school setting. Students practice with, use, and perfect the exact tools now that they will need later on a college campus" says Prillaman.

Tami Soltow teaches the Legal Process class of the program. She has incorporated many of the available technology tools and features into the learning strategies of her classes. "Students truly get a realistic approach into the communication and collaboration tools currently being used in the business community. In our classes, we have conducted mock trials using video conferencing and utilized the technology to conduct legal research projects" says Soltow. "I was also able to use a variety of teaching methods with the class such as g-chat and googledocs, thus showing the students how invaluable this type of program is and how many of their future college courses will be structured."

STUDENT FEEDBACK

Throughout the school year, students provided formative feedback to teachers regarding the program. Students became very creative in using various Web 2.0 tools in their feedback methods that included videos, blogs, and presentations. Listed below are some of the students' direct

responses submitted as feedback of this program:

- "Many of the students see the Distance Learning program as more than a text book and classroom; it becomes a community of 21st century learners."
- "Taking this class has better prepared me to enter the college campus next year."
- "We are able to use technology that we don't have available in other classrooms."
- "Assignments can be submitted to the teacher without handing in a hard copy of the assignment."
- "Students can work with other students at another location and communicate with them in real-time."

During the first year, approximately 114 students (10th-12th grade) participated in this program. Of the total students enrolled in the program, 47 students (41%) received the broadcast from the partnering school (the remaining students attended the class with the teacher). For the start of the second year (2012), there are 150 students enrolled. The distribution of students is similar to that of the first year (see Table 2).

OUTLOOK

The future looks promising for the distance learning program in the Red Clay Consolidated School district in Wilmington Delaware. School administrators at both schools received positive feedback from students completing the newly formatted classes. With an enrollment increase of approximately 30% in the second year of the program, Red Clay Consolidated School district plans to expand the program to include at least two other schools in the district and offer additional courses for the 2013-2014 school year.

Table 2. Student Enrollment Distribution

2011-2012				
Students	AIHS	Conrad	Total	%
Broadcast from AIHS	31	34	65	57.0%
Broadcast from Conrad	13	36	49	43.0%
School total	44	70	114	
School percentage	38.6	61.4		
2012-2013				
Students	AIHS	Conrad	Total	%
Broadcast from AIHS	54	31	85	56.7%
Broadcast from Conrad	10	55	65	43.3%
School total	64	86	150	
School percentage	42.7	57.3		

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