

Implementing Blended Learning with Google Apps
To Preparing Students For Computer-based Standardized Tests

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Abstract

Although government officials have made attempts to soften the negative impact of increasing standardized tests, the unintended results of the No Child Left Behind Act (NCLB) of 2001 is a dominant role played by tests in K-12 schools. School officials continue to feel the pressure to prepare students for standardized tests in order to maintain the reputation and operations of their institutions. The emergence of computer-based standardized test, such as the Partnership for the Assessment of Readiness for College and Careers (PARCC), has further exacerbated the pressure created by standardized tests in public schools. To prevent possible closure, schools must devise new methods to prepare students for success as critical standardized tests become computer-based and require students to possess more technical abilities than ever before. This proposal recommends that public K-12 schools invest in Google Apps or similar cloud-based platforms to implement blended learning lessons and tests for student development. Teaching students in a blended learning format, with services like Google Apps, will allow the students to regularly use digital tools and develop required technical skills. This in turn should improve students' ability to carry out computer-based standardized tests that require advanced technical skills.

Background

Coalitions such as, the Massachusetts Education Justice Alliance, continue to urge policymakers to decrease the use of high-stakes standardized tests in K-12 public schools. (Bowen, 2015) Across America, organizations, politicians and parents voice their position to lessen or remove standardized tests from public schools. (Bond, 2015) Nonetheless, the use and impact of the standardized tests in K-12 public schools have increased following the enactment of laws such as the No Child Left Behind Act (NCLB) of 2001. A 2008 study for Congress by the Government Accountability Office showed that testing and test preparation were proliferated since NCLB. The amount of time spent on testing in some schools has doubled. Nearly 443 state tests were created between 2002 and 2008. (Guisbond, Neill & Schaeffer 2012)

No Child Left Behind

The goal of NCLB was to bring every student to proficiency in reading and math by 2014. (Malone & Little, 2010) Education officials believed NCLB would place the United States back atop the graduate school world ranking through increasing performance accountability of school with standardized tests. (Bush, 2001) NCLB rewards schools that improve achievement on standardized test scores with continued funding. Schools that fail to meet established performance standards set by NCLB are labeled as “in need of improvement”. (Civilrights.org, 2004) Under NCLB, schools that continue to fail are subject to sanctions, student transfers and closure. (Bush, 2001). In 2011, the U.S Department of Education began waiving parts of the law due to complaints from school officials about the pressure to prepare students for tests and the impact low scores have on their schools. (Strauss, 2014) Although attempts to soften the negative impact of increases in the number of tests, the unintended results of NCLB is, a dominant role played by tests in K-12 schools. (Guisbond, et al., 2012)

Current State

Computer-Based Tests

In the aftermath of NCLB, growing development and use of computer-based standardized assessments further increases the pressure of standardized tests on K-12 institutions. In 2014, PARCC, a

new tests developed by the Partnership for the Assessment of Readiness for College and Careers, was adopted by New Jersey, ten other states and The District of Columbia. (Slover, 2015) PARCC is a computer-based Mathematics and English Language Arts test given to students in grades three through eleven two times per year. PARCC's computer-based format introduces new technical operations that students must be familiar with and proficient in to succeed. For example, students are required to effectively use a computer, navigate in a digital environment and carry out various computer operations. Technical operations such as dragging and dropping and typing during the timed test are among a number of the digital processes currently causing concern by parents and school officials. (Bowen, 2015) Amidst the roars of concerned parents and school officials, the PARCC test was administered to over 5 million students during the 2014-2015 school year. (Slover, 2015)

Statement of The Problem

The emergence of computer-based standardized tests, such as the PARCC, has increased the pressure created by standardized tests in public schools. Furthermore, computer-based tests require students to have more advanced computer skills than ever before. To ensure student preparedness for high-stake computer-based tests, schools must devise new methods of instruction to develop technology skills of its students. Students' lack of technology skills could negatively impact their performance on standardized tests. (Martin, Shannon & Wray, 2015)

Definition of Term

For the purposes of this proposal, Blended Learning is defined as "the combination of face-to-face instruction with computer-mediated instruction." (Graham, 2006)

Proposal

Technology is being infused in everything around us. Devices such as our cars and watches are more technologically advanced than ever before. While the need for routine cognitive and craft skills decline, the demand for information-processing skills and other high-level cognitive skills is growing. (OECD, 2013) Preliminary research shows that advances in technology now exist in the standardized tests our

public school students are required to take each year. (Slover, 2015) It is evident that schools must devise new teaching methods to prepare students for success as critical standardized tests become computer-based and require students to poses greater technical abilities.

This proposal recommends that public K-12 schools invest in Google Apps or similar online-based platforms and develop blended learning programs to better prepare its students. As technology advances, immersing students in online-based technology, such as Google Apps, in a blended learning format will allow students to regularly use digital tools and develop critical technical skills required on standardized tests. For the purposes of this proposal Nikki Jones, A 2nd year principal of University Heights Charter School in Newark NJ was interviewed. When asked to comment on the impact of technology skills of students' potential to succeed on computer-based tests, she responded; "The more students are exposed to technology the more they will develop the technologies skills and stamina needed to perform well on computer-based standardized tests. They need to practice the technology skills." N.J. Jones, (personal communication, July 19, 2015)

Design

Proposal Design

To carry out this application, one middle school that participates in computer-based standardized assessments will be selected. A one-year blended learning pilot program using Google Apps will be implemented in the selected school. The pilot program will include a research study to evaluate the effects of blended learning and student preparedness for and performance on computer-based tests.

Participants. The proposed participants of the pilot will include fifty to sixty students, two to three teachers, two to three principals or instructional leaders and one instructional technology staff. To select participating students and teachers, the pilot principal will be asked to recommend classes in grades six through eight. The teachers associated with the selected classes will automatically be included in the pilot.

Application

The pilot will last one school year and require an environment that is equipped with Google Apps. Google Apps will be used as an online-based solution to facilitate blended learning. The pilot will use Google Apps's learning management application, Google Classroom, to create and deliver digital lessons. Teachers in this study will be trained to effectively use Google Apps and Google Classroom. Student laptops will be purchased to allow students to access Google Apps, Google Classroom and other digital content. Students will have access to digital tools such as word processor, the Internet and data manipulation applications.

The pilot program will consist of combining instructional modalities (or delivery media), traditional instructional methods, online learning and face-to-face instruction. (Graham, 2006) The pilot will be design to give students fifty percent of online instruction and fifty percent of traditional instruction (pen, paper and board). To ensure success, the students in this study will receive daily and weekly laptop trainings to effectively access their lessons and communicate with their teachers digitally.

Proposal Assessment Plan

Throughout the pilot three qualitative pre and post surveys will be used to analyze the impact of blended-learning on students' awareness of their technical skills and their ability to succeed on computer-based tests. Qualitative surveys will serve as instruments to identify changes in perspective of the students' own ability to better carry out technical operations on a computer. The qualitative surveys will be administered in the beginning, middle and end of the pilot. Additionally, quantitative data will be collected in the form of quizzes and tests that assess the students' technology skills throughout the pilot. Finally, standardized test data of students will be collected and analyzed for growth and correlation.

Staff pre and post data are also critical to assessing the implementation of the blended learning program. Two evaluation surveys will be issued to the instructional leaders, teachers and technology staff during the pilot. A formative evaluation survey will be given after fifty percent of the school year is completed. Data collected from the formative survey will allow for changes and adjustments that are

needed to successfully complete the pilot. A summative evaluation survey will be given at the end of the pilot. Data collected from the summative evaluation will help design future application of the blended learning program.

Implications & Policy Considerations

To successfully implement blended learning, considering the impact on people and things involved, is critical for success. An implementation of blended learning will require adjustments in operations, duties and responsibilities within a school. It will also require teachers and students to carry out more advance processes and use of technology. New technologies necessarily evoke debate and policy decisions around educational methodology, implementation, evaluation and costs. (Smith, Lewis & Massey, 2000) Considerations include why and how blended learning will be used; how decision-making process affect individuals and courses; policy precedents and need for policy modification or new policy. (Wallace & Young, 2010)

It is likely that organization implementing computer-based learning will face a variety of new issues that were not faced using traditional teaching. (Smith et al., 2000) One example of a new issue is student accessing inappropriate online content. Blended learning will give students access to online content and social outlet that were not possible with traditional instruction. K-12 schools should work to protect against potential issues like access to adult content by considering modifications of current policies and adoption of new policies. Schools should also invest time in teaching students about digital citizenship and acceptable online activity. In 2014, the New Jersey School Board Association developed new policies around digital communication for public schools to follow. (McGlone, 2014)

Whether people or policies are being considered, a thorough plan, proper communication, and reasonable adjustments are needed to ensure successful implementation of blended learning programs. Technology has become the catalyst for change. (Smith et al., 2000) Standardized tests are becoming more advanced and computerized than ever before. As school that does not adequately prepare its students may face harsh implications in the form sanctions and closure.

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