

The Use of Computers and Technology Increase Student Achievement and Improve Attitude

El uso de computadoras y tecnología para aumentar el logro estudiantil y mejoramiento de la actitud.

Bonaveri, Pablo Daniel,

Master of Science Buffalo State University, New York, Doctor of Mechatronics, Major in Mechatronics Systems. Atlantic International University. Haway. Docente Investigador Uniautónoma, pablobonaveri@gmail.com

Blanco, Luis Simón.

Master of Science, in Multidisciplinary Studies for International Educators, Buffalo State University. State of New York. USA, Docente en el Área de Tecnología luisimon@gmail.com

Calvo, Marcos Julio.

Master of Science, in Multidisciplinary Studies for International Educators. Buffalo State University. State of New York. USA, Ingeniero de entrenamiento de Relianz Mining Solutions

Cepeda, Gilberto

Master of Science, in Multidisciplinary Studies for International Educators. Buffalo State University. State Of New York. USA Catedrático en la Escuela Normal Superior del Distrito de Barranquilla gilcer1269@yahoo.es

Para citar este artículo: Bonaveri P., Blanco, L& Calvo, M. Cepeda G. (2015)The Use of Computers and Technology Increase Student Achievement and Improve Attitude, Escenarios Vol 13 No 2, p,p.114-134
DOI: [http:// dx.doi.org/10.15665/esc.v13i2.603](http://dx.doi.org/10.15665/esc.v13i2.603)

Recibido: Abril 8 de 2015
Aprobado: Mayo 21 de 2015

ABSTRACT

This report describes how the use of technology helps lessons run smoothly for teacher and students during the first semester of 2007, with a particular focus on the use of computer technology to improve academic achievement. Is based on observations of pretests, Likert scales, posttests, and statistical analysis with certain classrooms which were chosen previously by teachers who made this project. Demographics are as follows:

Age Range: 17 to 19 (12th grade)/16 to 17 (10th grade), Sex Distribution: M & F, Ethnic Break-down: mixed Hispanic, White, Colombian students. Location: Barranquilla, Colombia, SA, Other important characteristics (attach additional sheets as necessary) most students are from upper middle class families in Colombia. With the following design: Pre Test -Treatment- Posttest The investigation revealed that technology had a positive impact on the students because their level of motivation and performance grew up consistently. Because of available amount of computers at the school was not enough, students used simulators through internet at home, reducing the teacher's supervision, and the amount of time dedicated to the web page (with the simulator) by each student was not the same.

Key words: Technology. Computers. Achievement. Attitude.

RESUMEN

Se analiza, cómo el uso de la tecnología ayudo a los profesores y sus estudiantes durante el primer semestre de 2007, para el aprendizaje de ciertas lecciones, con un enfoque particular en el uso de la tecnología informática para mejorar el rendimiento académico. Se basa en las observaciones de las evaluaciones preliminares, escalas Likert, evaluaciones posteriores y análisis estadístico con ciertos salones de clase que fueron elegidos previamente por profesores que hicieron este proyecto. Datos demográficos son los siguientes: rango de edad: 17 a 19 (grado 12) / 16 a 17 (décimo grado), distribución del sexo: Masculino y femenino, Mixto hispano, blanco, estudiantes colombianos. Ubicación: Barranquilla, Colombia, S.A, otras características importantes (Adjunte hojas adicionales si es necesario) mayoría de los estudiantes provienen de familias de clase media superiores en Colombia. Con el siguiente diseño: Pre Test - Treatment -Post test. La investigación reveló que la tecnología ha tenido un impacto positivo en los estudiantes, debido a que su nivel de motivación y el rendimiento creció constantemente. Debido a que la cantidad de computadores disponibles en el colegio no fue suficiente, los estudiantes utilizaron simuladores de internet en sus casas, esto redujo la supervisión del profesor y la cantidad de tiempo dedicado a la página web (con el simulador) por cada estudiante no fue la misma.

Palabras Clave: Tecnología. Computador. Logro. Actitud.

INTRODUCCIÓN

Not all teachers feel comfortable using new technologies of communication and information inside the classroom, developing lessons and evaluating students' skills.

Especially for difficult subject-areas such as ours: physics, chemistry and math. Because of this, we decided to form a multidisciplinary group involving computer technology, Science and Math.

Taking into account all limitations that we have (resources, technological support provided by the school, own educational background) as well as mayor part of time students must be working lonely, we chose some simulators through regarding topics which were identified as critical issues of each particular subject.

All of these represent obstacles for students' learning and motivation, and also for getting better results from them.

As we know, we are living in a constant progress of technological development in which the use of technology is essential to be adopted into changing world.

Based on this, we are pursing more engagement in all students, using simulators in web pages in which there are applied important concepts worked on class.

Using technology in education is no longer a "new" idea. Since technology has grown and been introduced to the society, it is very important to integrate its use in education. As an instructional tool, it offers a great variety of information and skills required to succeed in life. Also it is a motivational tool that helps students to develop attitudes and skills toward learning, self-esteem, and self-confidence.

Today's technology provides teachers and students a great variety of opportunities for teaching and learning that are impossible to use with traditional methods; in fact, the use of computer technology goes beyond assisted instruction in the form of tutorials in which students interact with computers to learn knowledge and skills that allow then build reports, that include graphs, photos, tables, etc., of great appearance and quality.

"There are many factors that make computers a cognition tool" (Nogueira, 2003)

REVIEW OF LITERATURE & RESEARCH QUESTION:

Article Summary Sheet - Use Google Scholar to locate articles

Name of Article: The tutorial benefits of on-line assignments: MasteringPhysics in first year physics at the University of Sydney