



# INCREASING STUDENT PARTICIPATION AND SUCCESS USING A BIOLOGY BLOG

## Problem Statement

Research supports the assumption that many students feel intimidated and lack the confidence to openly participate in class. They may feel intimidated by the instructor and peers and/or lack of confidence to actively participate in class. An additional problem in many classrooms is the lack of inquiry based teaching methods. Students are content to wait for answers to be given rather than seeking out knowledge through the learning process. I believe that the use of a weblog within the science classroom will encourage more students to participate in a “safe” environment. My research suggests the use of a weblog as an instructional tool encourages students to become part of a team of learners that offer support one another throughout the learning process. Students will offer guidance, suggestion, and support through online discussions, activities, and online quizzes. The weblog will encourage inquiry based learning within the class enabling a more thorough knowledge and increased active participation from students.



## Student Sample

The class of 36 students has 10 Hispanic, 4 black (non Hispanic), 3 Asian, 2 Ukrainian and 17 White (non Hispanic) students as indicated on their student records. The majority of students earn a B or better in Citizenship. Most academic grades fall in the 70 – 85% range with slightly under 10% earning a grade above 89% or below 60%. I consider this to be an average performing class. They are fairly easy to manage and most students are cooperative and sincere in their efforts.



## Focus Question

*How can I effectively improve student learning as evidenced by increased participation, class wide grades, and individual scores by using an online Biology Blog to increase inquiry based instruction within the science classroom?*

## Sub Questions

- Will using a Biology Blog increase student participation?
- Will using a Biology Blog promote self guided study and research?
- Will the use of a Biology Blog increase student quiz scores?
- Will the use of a Biology Blog create a comfortable learning environment for students.



## Treatment / Design

The treatment used in this research consisted of assignments issued via a weekly Biology Blog. Beginning on Friday afternoon by 3:00 PM, assignments were posted on the Biology Blog portion of the school website and were due to be completed by the following Thursday at 10:00 PM. Weekly blog assignments consisted of a discussion component, online activity, and online quiz. The study was conducted for a full 9 week semester on a standard 4x4 block schedule.



Research Questions	Data Source #1	Data Source #2	Data Source #3
<i>Will the use of a weekly Biology Blog increase student participation?</i>	Completion of blog discussion, electronic assignment, and online quiz.	student surveys and teacher journal	Student interviews.
<i>Will the use of a weekly Biology Blog result in an increase in self directed research?</i>	Completion of blog discussion and electronic assignment.	student surveys	Student interviews
<i>Will the use of a Biology Blog result in increased quiz scores</i>	Individual scores and class average on assigned quizzes	student surveys	Student interviews
<i>Will the use of a Biology Blog create a comfortable learning environment for students?</i>	Student surveys	Student interviews	

**Christopher M. Cimino**

Science Department Chairperson  
Biology Instructor

Mesa Verde High School  
7501 Carriage Drive  
Citrus Heights, CA

