



# INCREASING MOTIVATION OF STUDENTS IN A BLENDED LEARNING ZOOLOGY COURSE



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## Background

Huntley High School is a large Chicago suburban high school that is a leader in blended learning. Zoology is taught in a blended format as well as in a traditional classroom setting both using NGSS standards. Blended students have difficulties learning terminology, anatomy, and physiological process when they are not exposed to the retrieval practices that are used daily in the traditional classroom. Blended students attend class 2 days a week and work online outside of the classroom 3 days a week. The completion rate of assignments by the blended students is lower than the completion rate in the traditional classroom making it difficult for the students to get the most out of the in class activities.

## Treatment

Students participated in the study with the Birds and Mammals Units. Online quizzes are often used in both the traditional and blended Zoology to gauge student learning, misconception, and weaknesses. Students complete online quizzes at a higher rate than they do assignments and they place more value on the quizzes. Google quizzes will be used to hold the blended students responsible for their learning and replace the retrieval practice that they miss on the days they are blended. Three Google quizzes will be given at the culmination of each section of each unit and they will concentrate on the same information that would be used in retrieval practice.

## Research Questions

Primary Question: How can students be held responsible for their learning with online assignments?

Secondary Question: What type of assignments are students most motivated to complete?

Secondary Question: What skills do successful blended class students have that less successful students need to develop?

Secondary Question: What additional help do the less motivated students need to develop skills to be successful?

## Data Collection and Results

Average quiz scores were compared from pre-study and during the study to determine if Google quizzes were an effective replacement for retrieval practice and if there was any effect on the completion rate of their online assignments. In addition, the unit summative test scores were compared to the pre-study summative test score averages to determine the overall effect of the treatment. The completion rate for online assignments increased significantly from 54.7% to 76.2%. Average quiz scores increased from 68.8% to 75.3%. Summative test score averages increased from 2.6% to 3.1% in blended classes.

