

School Research Project Report

Springfield High School Science Department

Impact of Interactive Learning Tools on Student Engagement and Performance

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Research Project: A Comparative Study on the Effectiveness of Interactive versus Traditional Teaching Methods on High School Biology Students

Investigator: Jamie T. Kirkland Undergraduate Candidate, Springfield University

Prepared by: Dr. Helen Cho

Statement of Purpose:

This case study is designed to examine the effectiveness of interactive learning tools compared to traditional lecture methods in high school biology classrooms. The approach to integrating technology in the classroom is aimed at supporting the creation of more engaging and effective learning environments.

Research Questions:

This study examines the major research questions:

How do interactive learning tools affect student engagement in high school biology classes? - How measurements of engagement (attendance, participation scores) compare between classes using interactive tools versus traditional lectures.

What impact do interactive teaching methods have on the academic performance of students? - What differences in test scores and grade outcomes are observable between the two teaching methods.

Which aspects of interactive learning are most appreciated by students? - Which features (multimedia, real-time feedback, collaborative tools) are highlighted by students as most beneficial.

Study Methodology:

This quantitative exploratory study seeks to understand the direct impacts of teaching methods on student outcomes. The study encompasses surveys, performance data analysis, and classroom observation, aimed to provide a comprehensive overview of learning effectiveness.

Conclusion:

The findings of this study indicate that classes equipped with interactive learning tools showed significantly higher engagement and better performance scores compared to traditional lecture-based classes. These insights are essential for educators and school administrators looking to optimize teaching strategies and improve student learning outcomes. Further studies could explore the long-term effects of interactive learning on student academic careers