



Increasing Student Engagement with Citizen Science

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Introduction

Student engagement is a key component to student learning. The goal is to teach students about the nature of science by engaging them in inquiry projects and citizen science projects.

Methodology

Students were immersed into three projects to evaluate the impact of real- world laboratory investigations versus standard classroom instruction. Best practices often involve the integration of research proven methods such as inquiry labs, authentic and/or formative assessments, project-based learning, and other constructivist activities (Stoica, 2010; Olga, 2013).

Data Analysis

Research Question

The purpose of this study was to determine if student engagement and learning outcomes are improved by the implementation of citizen science projects in the classroom instead of standard laboratory assignments.

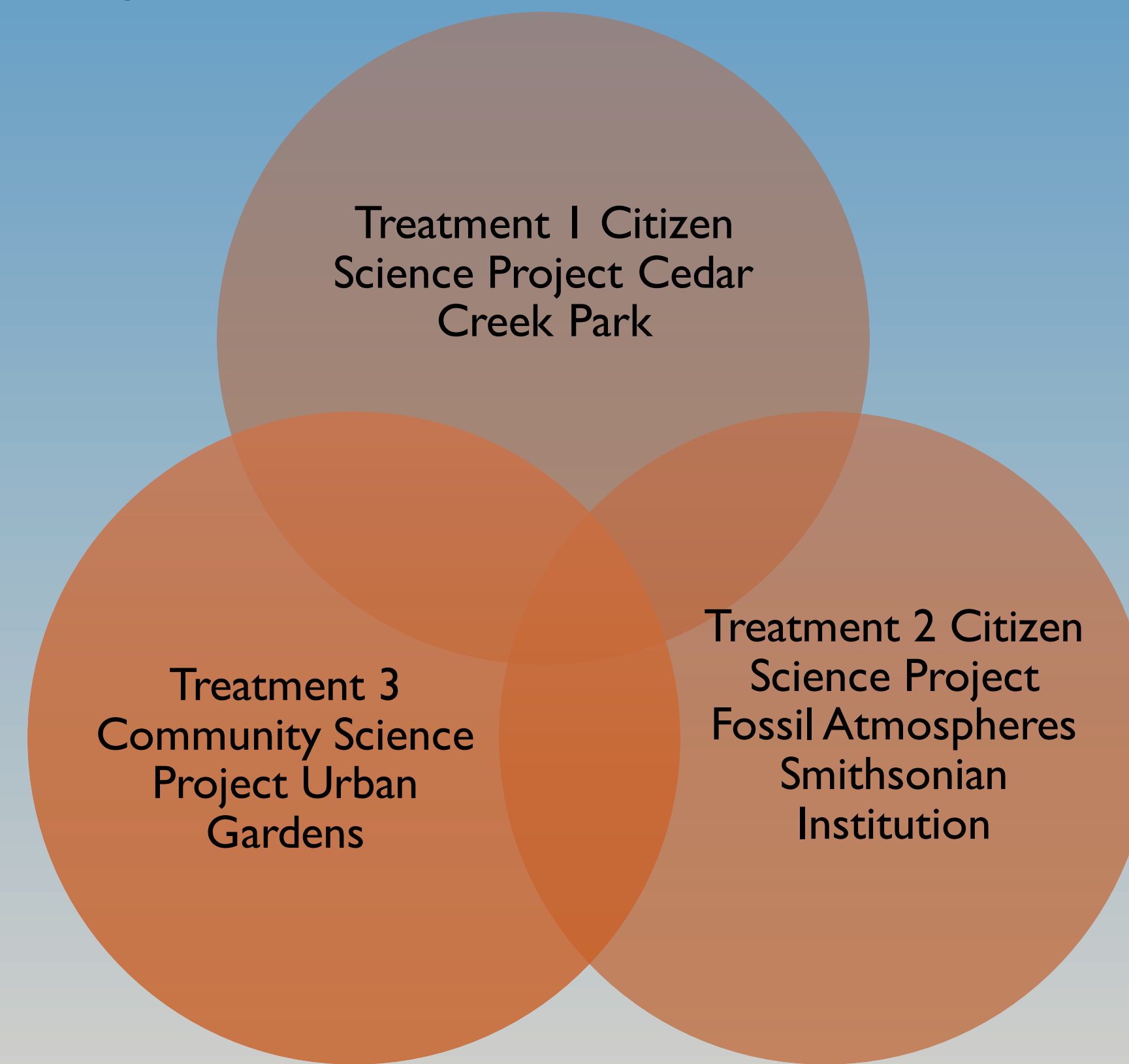


Figure 1. Methodology Treatment Unit Project Summary, (N=20).

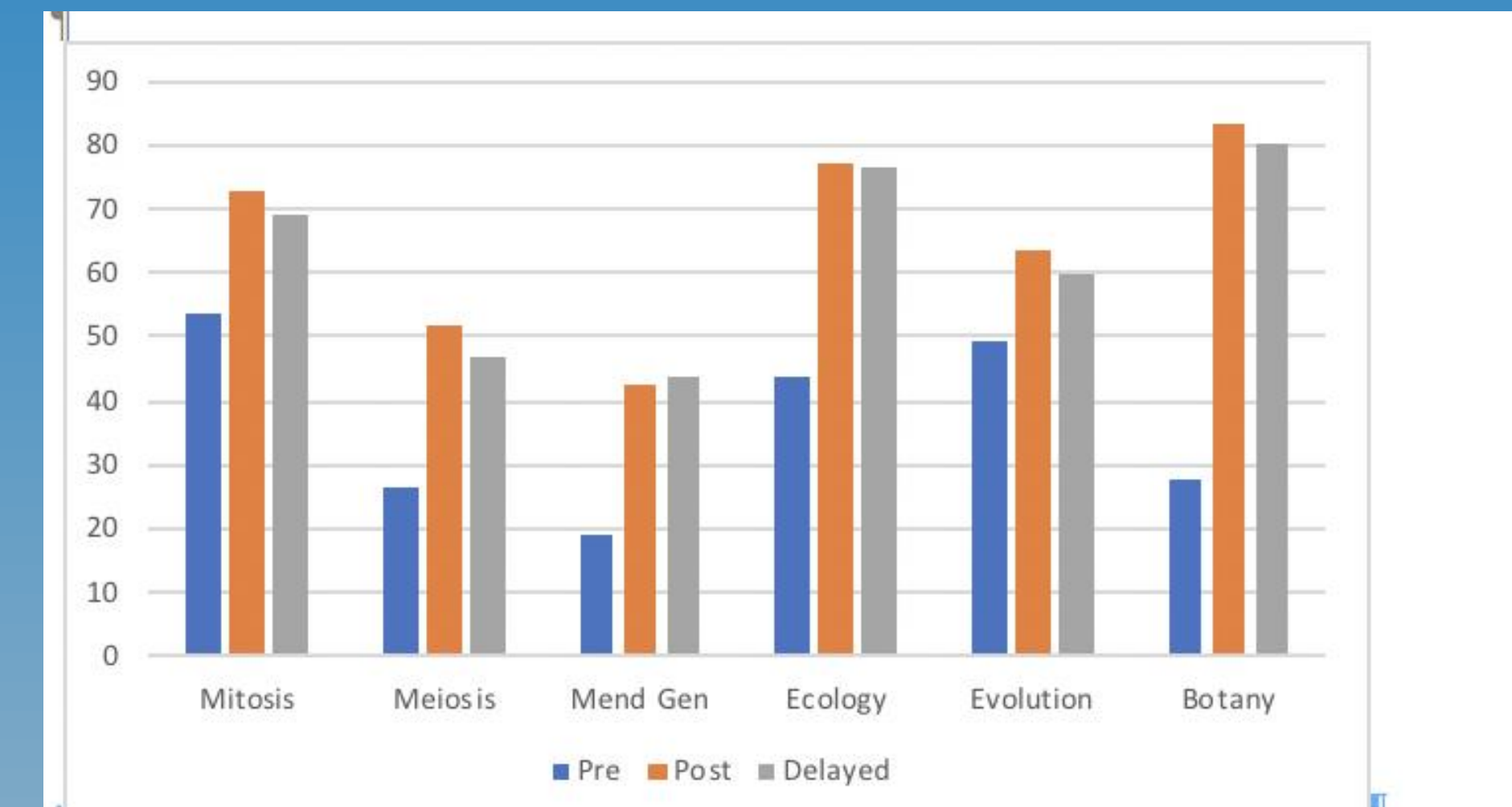


Figure 2. Summary of All Units Pre, Post and Delayed Post-Test Scores, (N= 20).

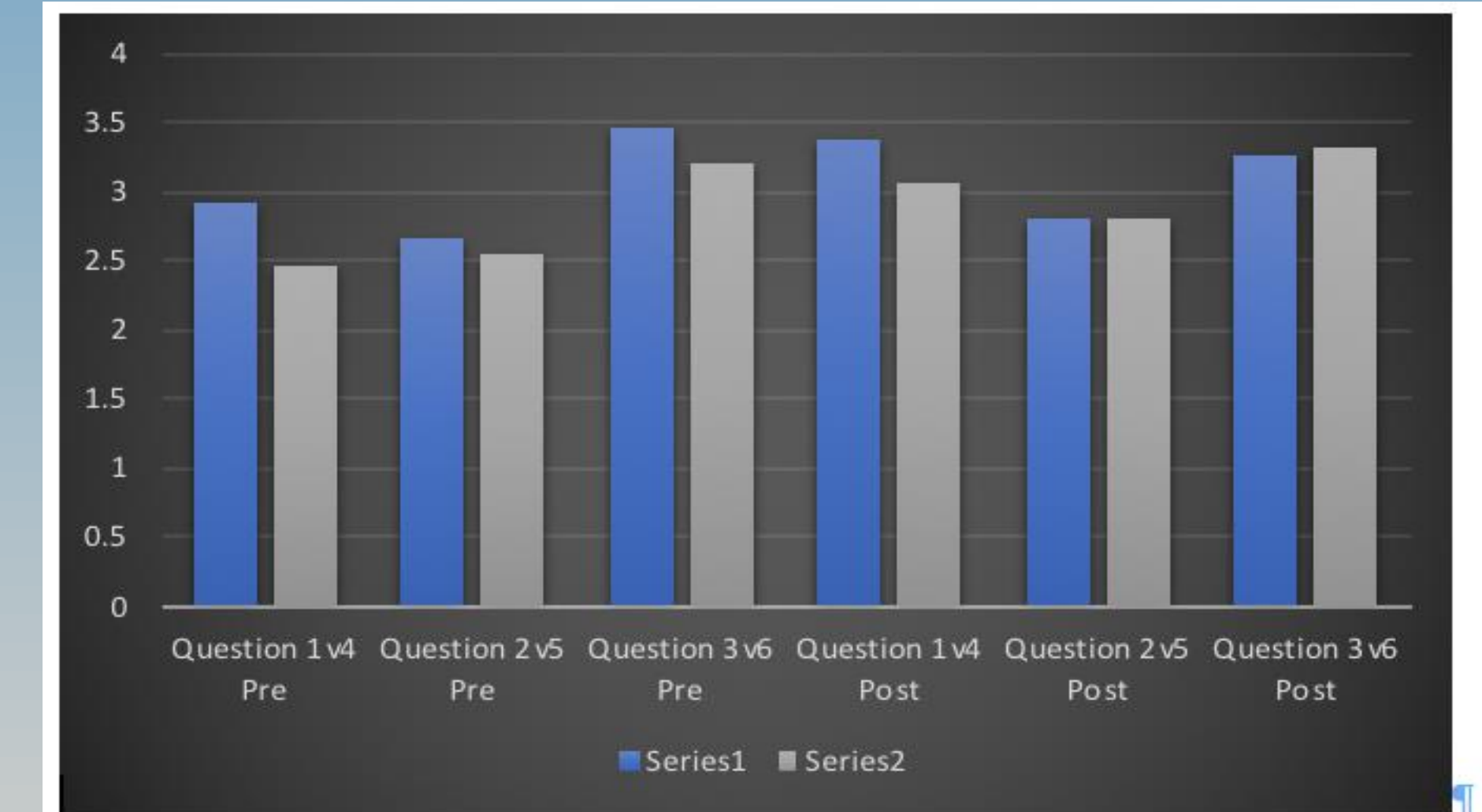


Figure 3. Student Confidence Content Surveys. (N= 20).

References



Conclusion

In conclusion, the implementation of citizen science projects was an effective strategy to increase student engagement. The data does support the goal of increasing learning outcomes.

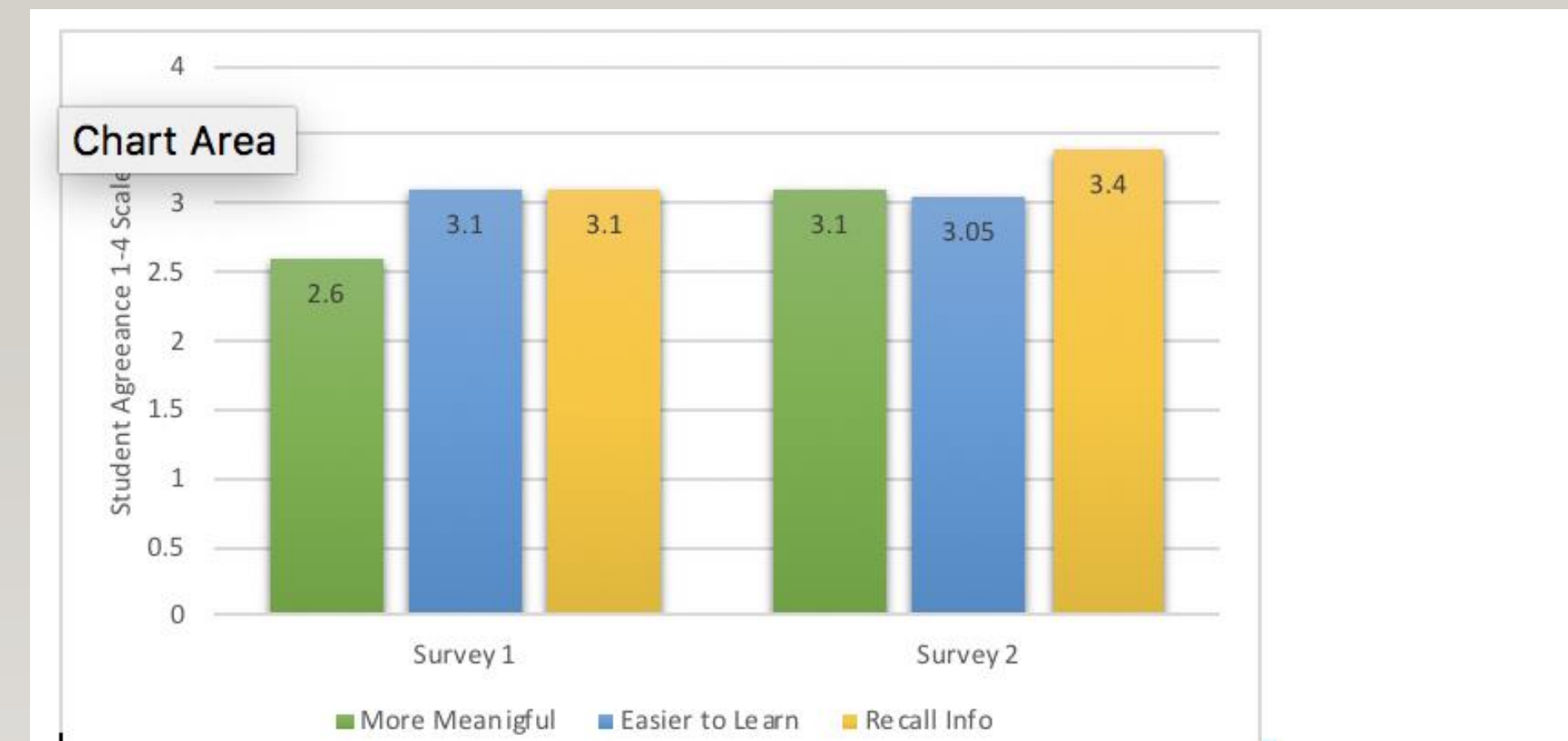


Figure 4. Citizen Science Survey. Scale of 1-4. Strongly Disagree (1); Disagree (2), Agree (3), Strongly Agree (4), (N=20).