

Effect of the 5E Instructional Method in High School

Background

Scientists are looking for answers to questions about the natural world through experimentation; not just memorizing facts. If teachers want to inspire students to be scientists they need to let them engage in science learning in the same manner that scientists do. The 5E instructional method allows students to develop ideas by engaging science learning.

Claim, Evidence Reasoning

The 5E Instructional Method improved students attitude and engagement. More students completed their work and received higher scores on their work using 5E. Students were more excited to come to class during the unit. The design of the 5E Instructional Method led to more engagement of the students which led to more of them completing their work and handing in quality work. The increased engagement of students led to an improvement in students attitude toward science class.

Treatment

The 5E Instructional Method



<https://www.swiftlearningservices.com/5e-instructional-model-for-elearning-a-model-preferred-by-nasa/>

Data Collection

The data collection instruments used were a Likert survey, interview questions, teacher journal, teacher grade book, and pre and post tests. The Likert survey assessed how students felt about the level of engagement in the class and how they felt the instructional methods affected their performance. Random students were also interviewed regarding how they felt about the 5E instructional method. Students that were randomly selected were given the choice of participation.

Pre and post tests were used for each unit assessed during the research in order to be able to compare the amount of improvement students made. The results of these tests were analyzed to determine if the 5E instructional method had an affect on the science classroom.

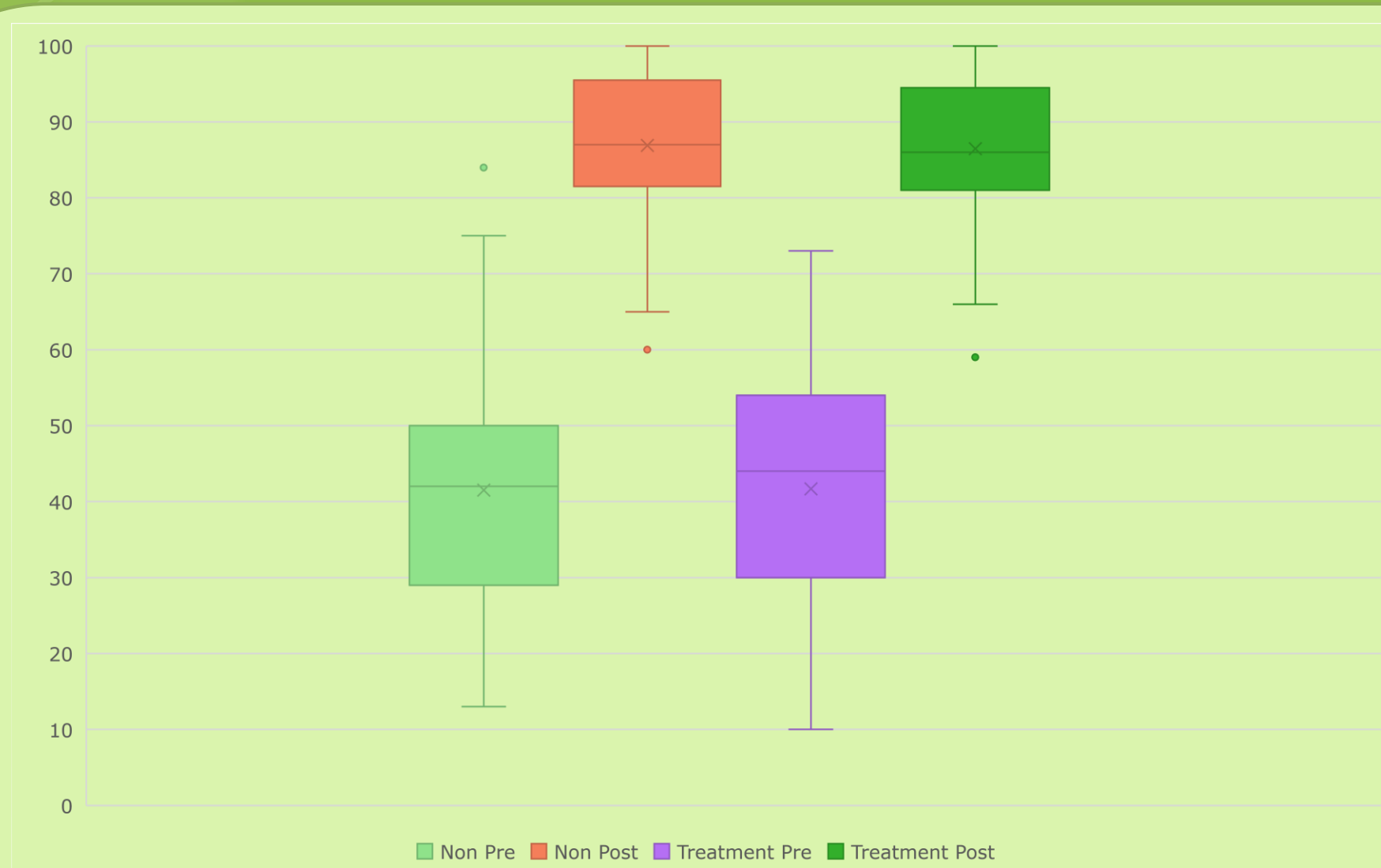


Figure 1. Pre and Post Test Scores

Results

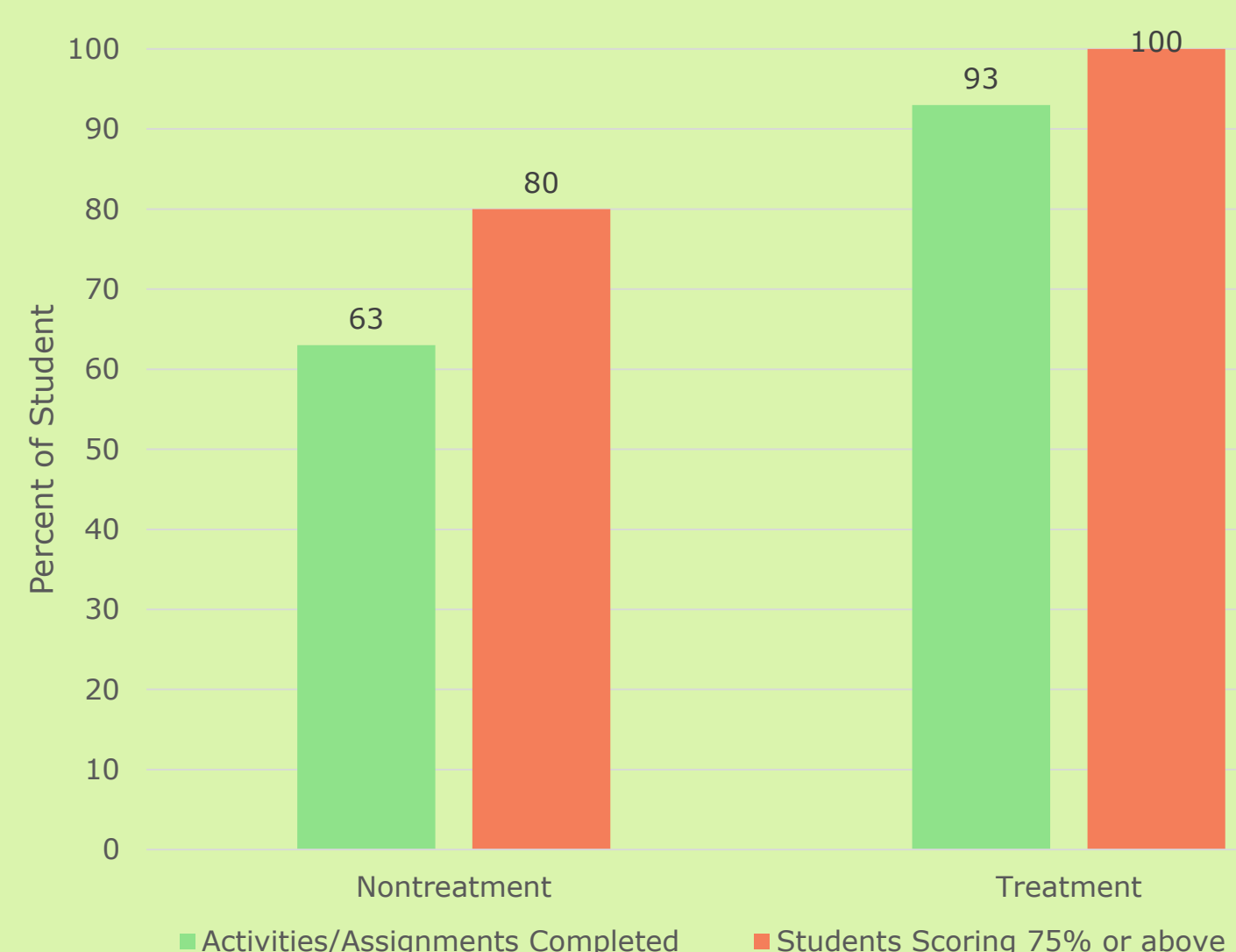


Figure 2. Comparison of Formative Assessments

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