

Proposed Experiment:

Population: Students aged 8-18, would be divided into two age groups (8-12) and (13-18) for specific curriculums.

Procedure:

We will randomly assign students to the control or experimental group and deliver lessons over multiple weeks. This would ensure the same duration and frequency for both groups. Last we would need to assess the engagement, retention, and empathy before, during, and after the intervention.

Independent Variable:

Our independent variable is what we're going to manipulate, which is the curriculum. One of them could be a standard history curriculum on slavery which would be our control group and an integrated curriculum combining history and scientific methods which is what we were testing and our experimental group.

Dependent Variables:

We would measure our dependent variables based on the results of the outcomes.

1. Engagement could be measured through surveys, participation rates, or classroom observation.
2. Knowledge Retention, we could assess this through pre and post intervention quizzes on both historical and scientific content.
3. Empathy and Social Awareness, this will be evaluated using reflective essays or survey scales designed to measure social emotional learning outcomes.

Control:

Our control would be that students in the standard curriculum will receive no integration of scientific methods.

Hypothetical Results of Curriculum Impact on Students:

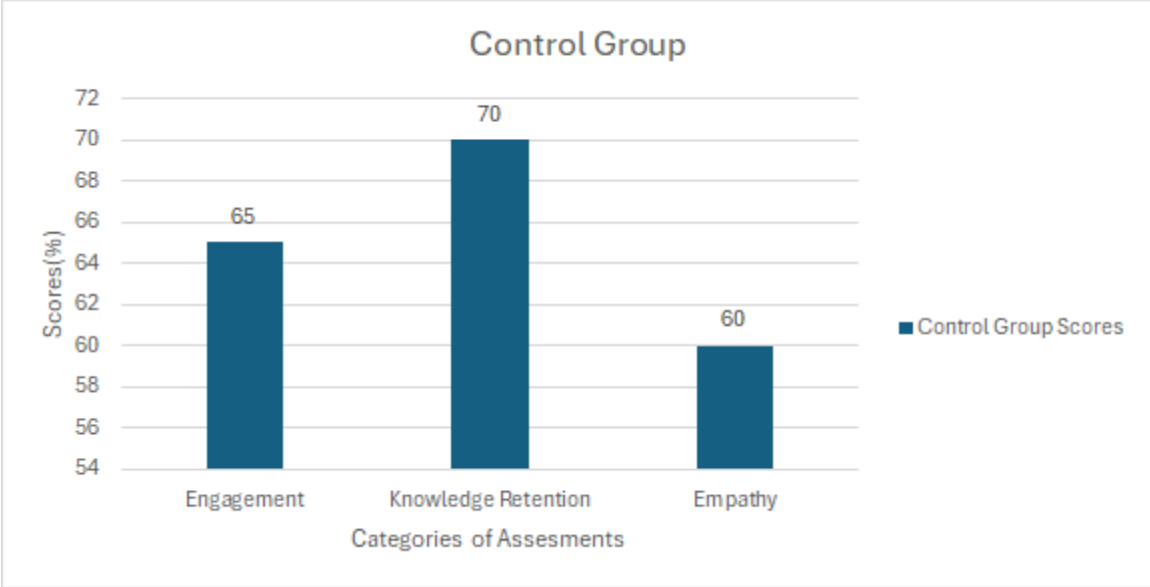


Figure 1: Average scores for Control group on sections of: Engagement, knowledge Retention, and empathy (n=30). n = number of students.

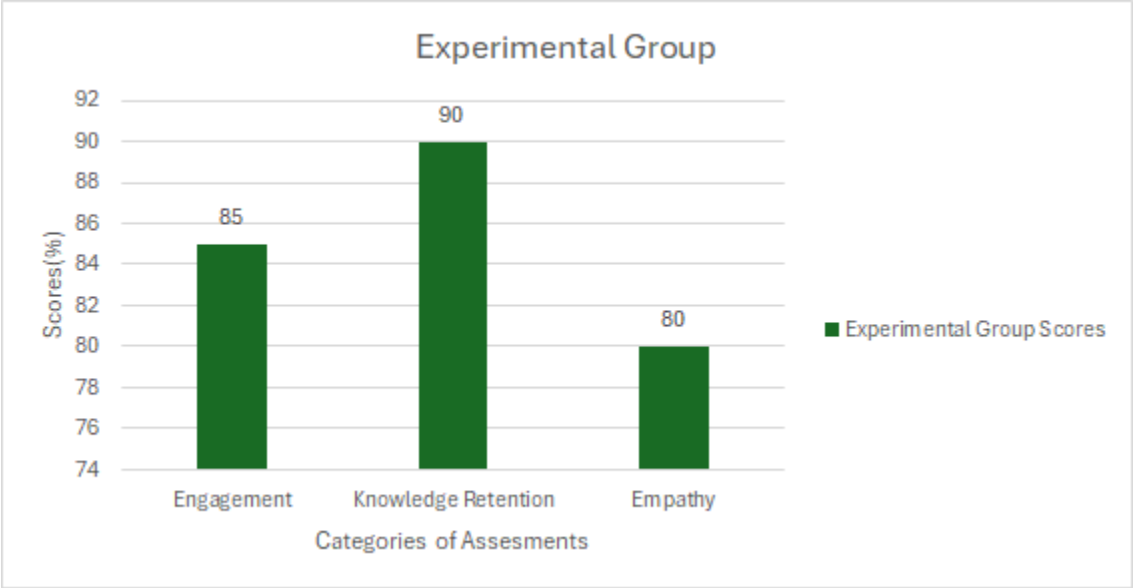


Figure 2: Average scores for Experimental group on sections of: Engagement, knowledge Retention, and empathy (n=30). n= number of students.

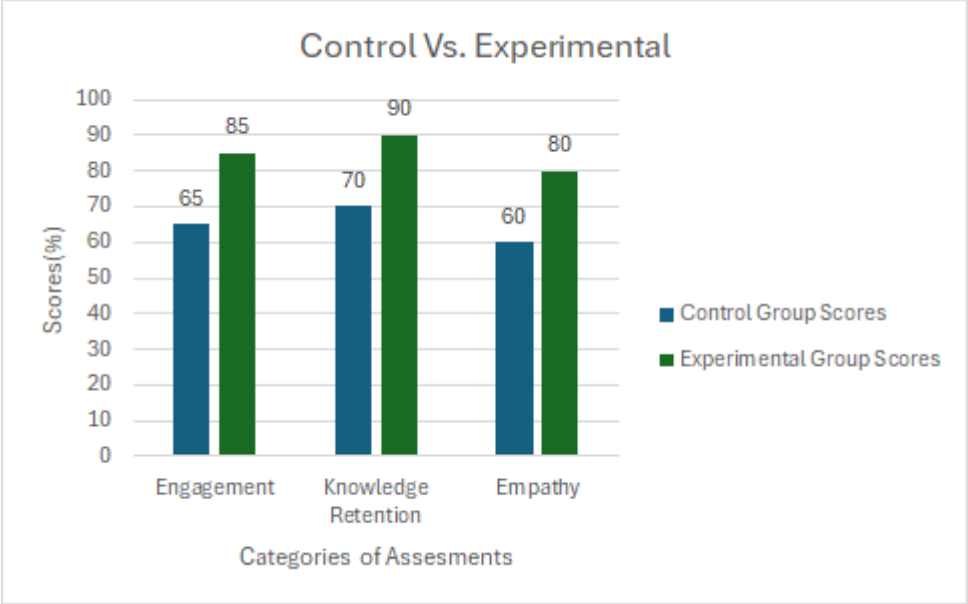


Figure 3: Side by side comparison of average scores for Control group and Experimental group on sections of: Engagement, knowledge Retention, and empathy (n=30) for each group.