

# Homework Choice in the chemistry classroom

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## What is homework?

Any work completed by the student at home:

- **Practice** learned skills
- **Prepare** to learn new skills
- Increase classroom **participation**.

## Treatment

Unit Pre-Test/Formative Assessment

In-class Instruction (Week 1)

Homework (Week 1)

In-class Instruction (Week 2) with Participation Observation

Homework (Week 2)

Unit Test (Summative)

Post-Unit Formative Assessment

## Main Research Question and Sub-Questions

What effect does homework choice have on student academic achievement?



How does homework choice affect the students' sense of **pride and ownership** over their work?



What effect does homework choice have on **homework compliance** and timely completions?



What effect does homework choice have on **classroom participation**?

## Class Sample

- Homeschooling Tutorial Center
- Six students, 4 female/2 male
- Meet in person one time per week

## Pre-treatment Survey

How much do students enjoy science homework?

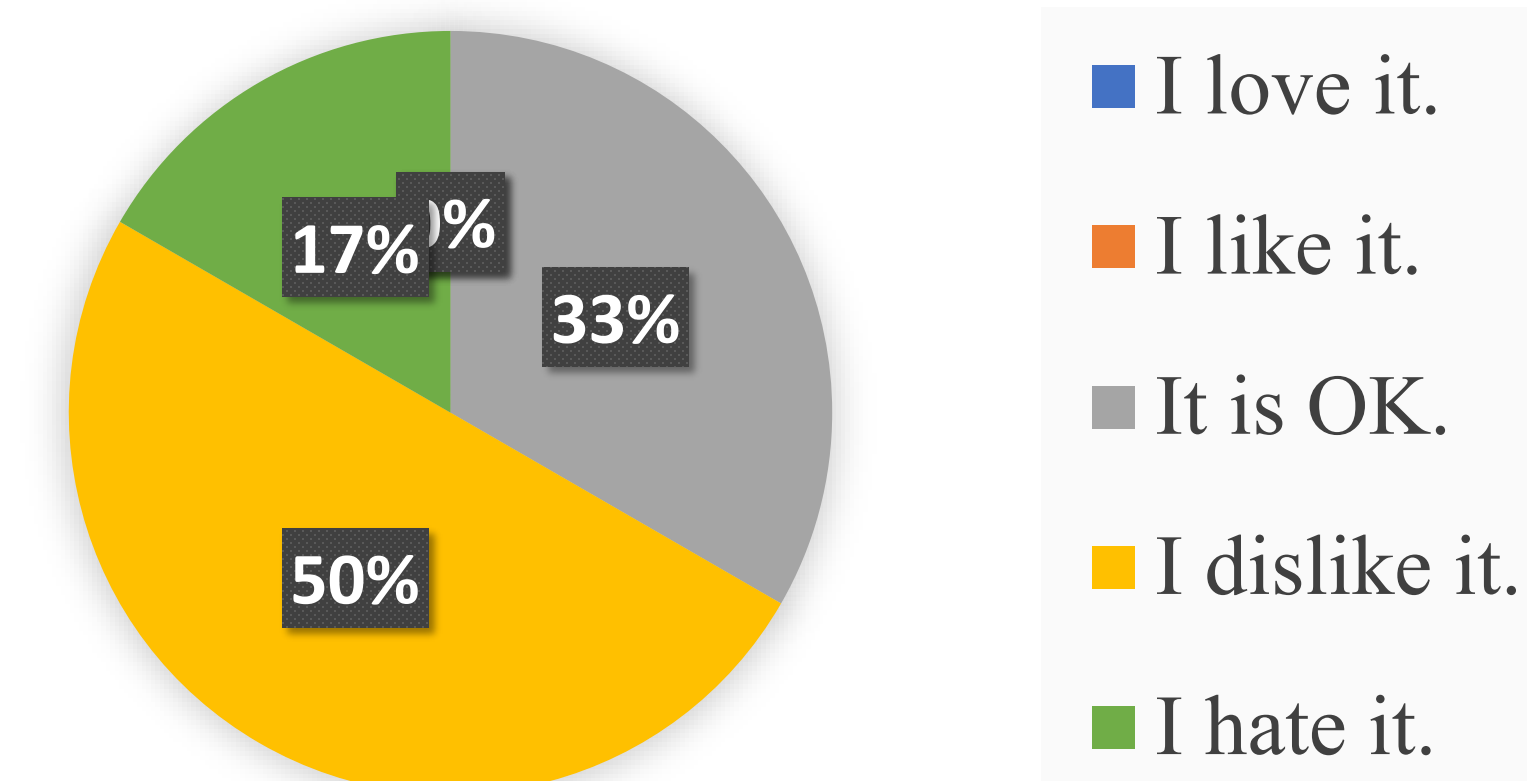


Figure 1. Attitudes of homework pre-treatment, (N=6).

## Summative Assessment Scores

Table 1. Summative Assessment Scores, (N=6).

Unit	1	2	3	4	Average Score (Treatment)	Average Score (No Treatment)	Percent Change
Student #							
A1	85	65	95	95	90	80	11 %
A2	70	88	85	90	78	89	-15 %
A3	75	41	90	100	83	71	15 %
B1	-	76	73	100	88	73	17 %
B2	85	88	95	100	94	90	4 %
B3	90	88	80	95	92	85	7 %
Average	77	65	90	95	88	-	
	88	84	83	98	-	81	

\*Gold colored cells are for treatment. White cells are no treatment.

## Post-treatment Survey

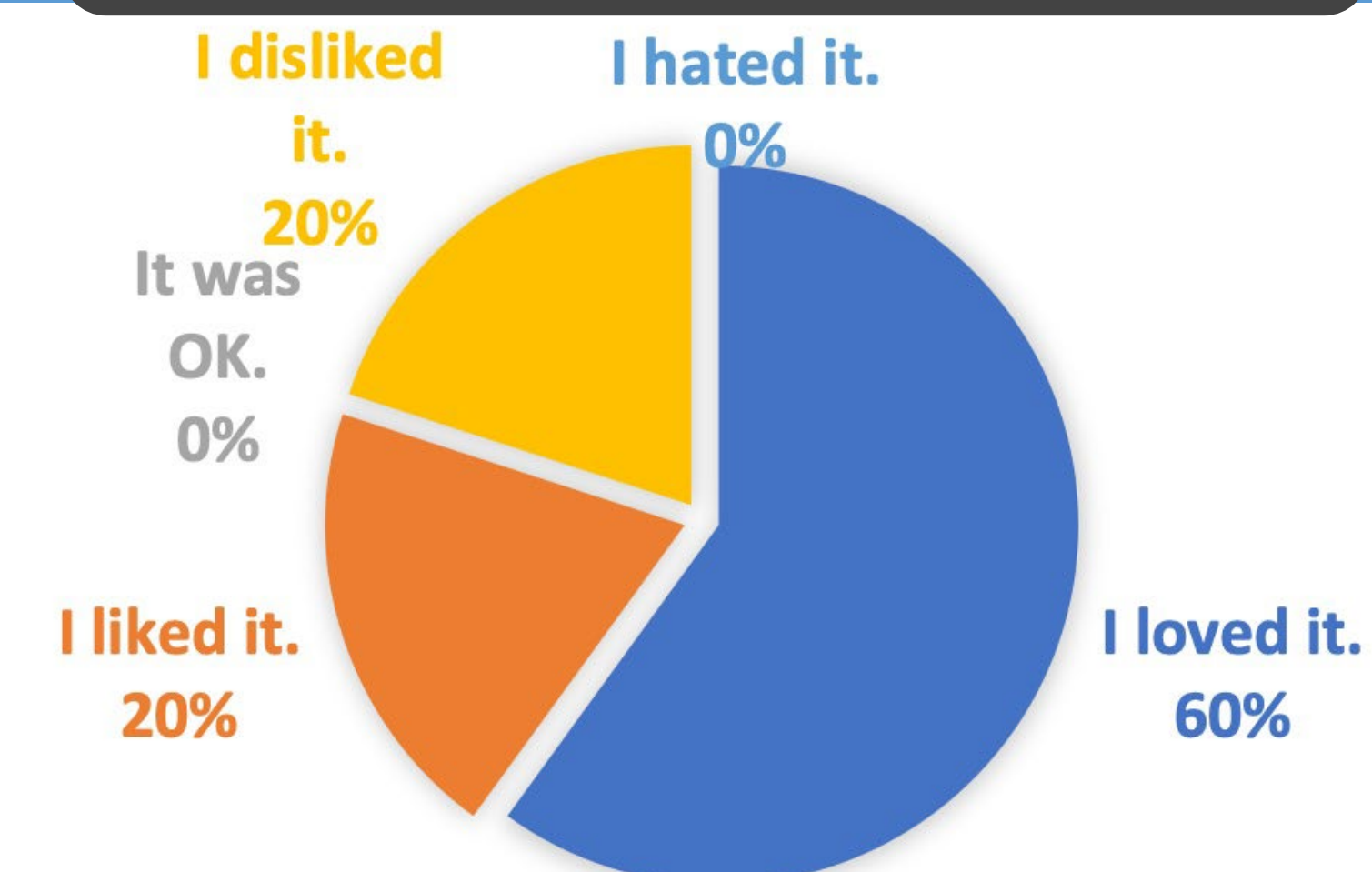


Figure 2. Attitudes of treatment, (N=6).