

## Study Objective

**Background**

- Word Repetition (WR), a cognitive defusion technique, is effective for self-related negative words.
- Most word repetition exercises use simple words (e.g., depression, anxiety, stupid).
- However, there are certain words that combine two words to yield a new meaning (compound words, e.g., social anxiety or communication disorder)  
→the effect of WR using compound words has not been studied.

**Objective** To examine the effectiveness of WR to reduce negativity and believability in self-related negative thoughts using compound words.

**Hypothesis**

- ◆ Repeating only TEA has no effect on negativity and believability in self-related negative thoughts.
- ◆ Repeating a single negative word and compound negative words reduces negativity and believability in self-related negative thoughts.

## Method

### Participants

Undergraduate Students (N=37)

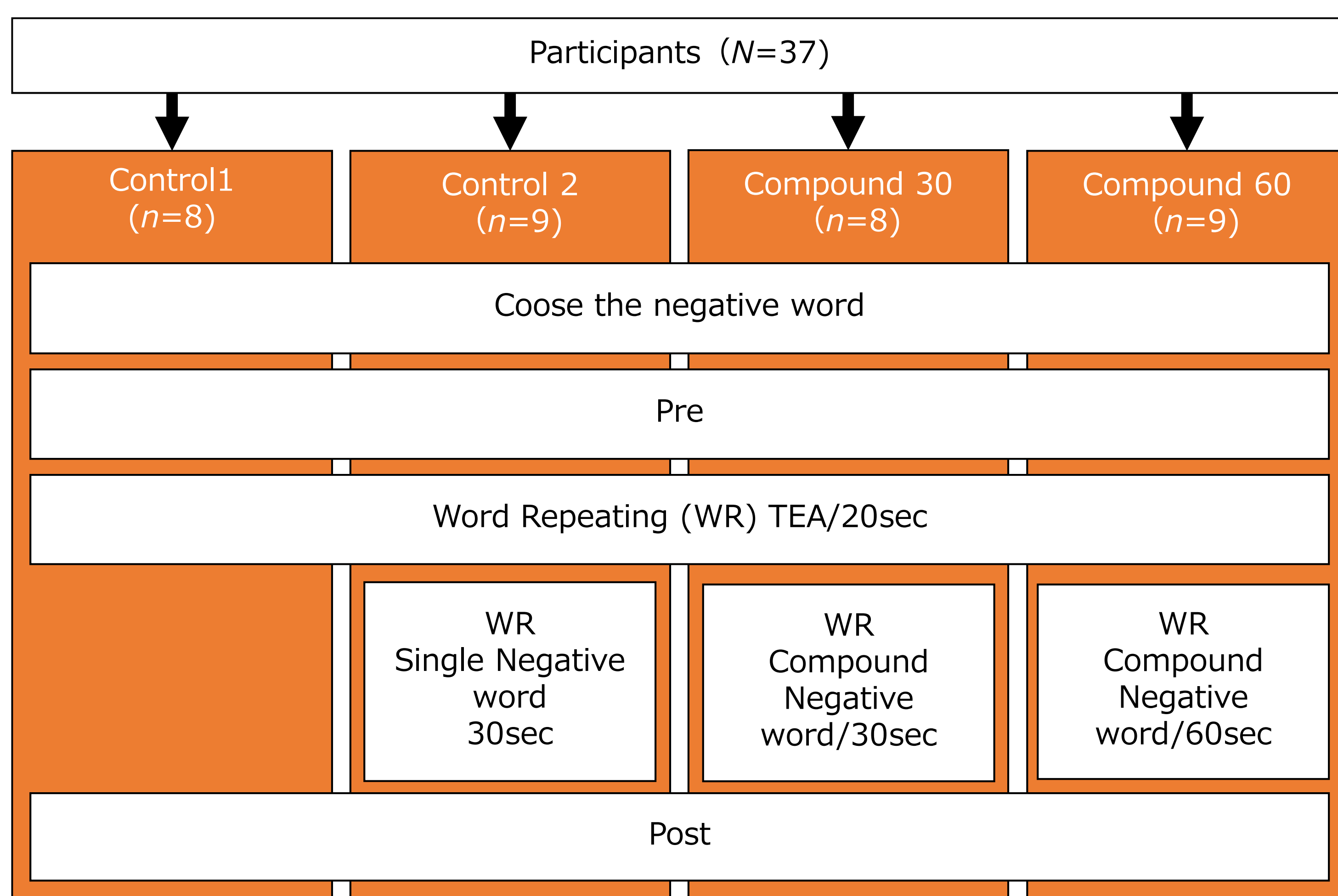
### Measures

- 1) Negativity for negative words related to the self
- 2) Believability for negative words related to the self  
→Both of them were VAS (0-100)

### Interventions

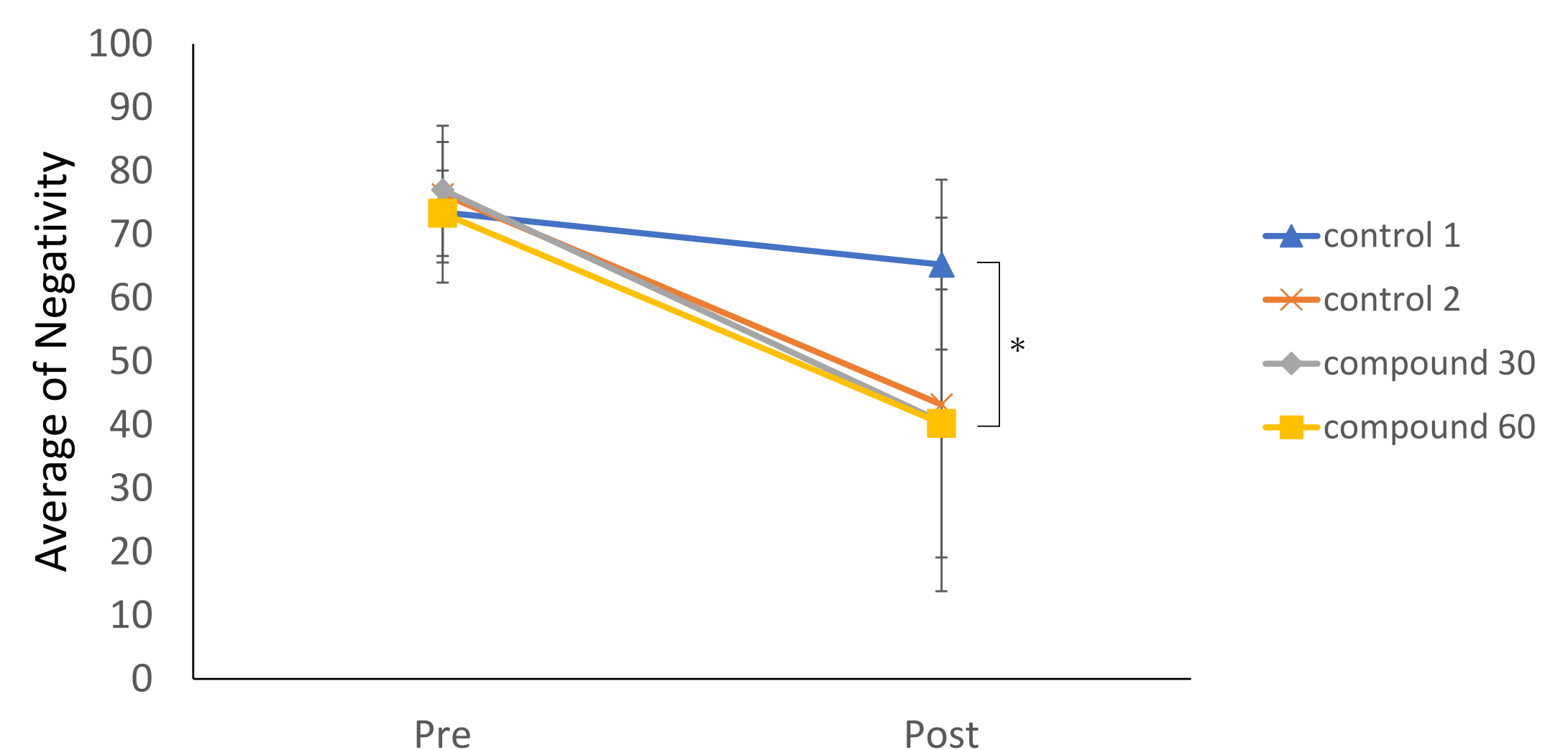
- ◆ All the participants engaged in a **WR exercise**.  
The Milk Exercise was used as the defusion exercise.  
We used **"O-CHA"** (meaning tea in Japanese), as tea is more familiar than milk in Japan.
- ◆ However, the **type of words chosen** and **time of negative word repeating** were **different between groups**.
- ◆ Participants were randomly assigned to 4 groups.
  - 1) Control 1: "O-CHA (20sec ※same time in all of groups)"
  - 2) Control 2: "O-CHA" + Negative simple word (30sec)
  - 3) Compound 30: "O-CHA" + Negative compound word (30sec)
  - 4) Compound 60: "O-CHA" + Negative compound word (60sec)

### Procedures



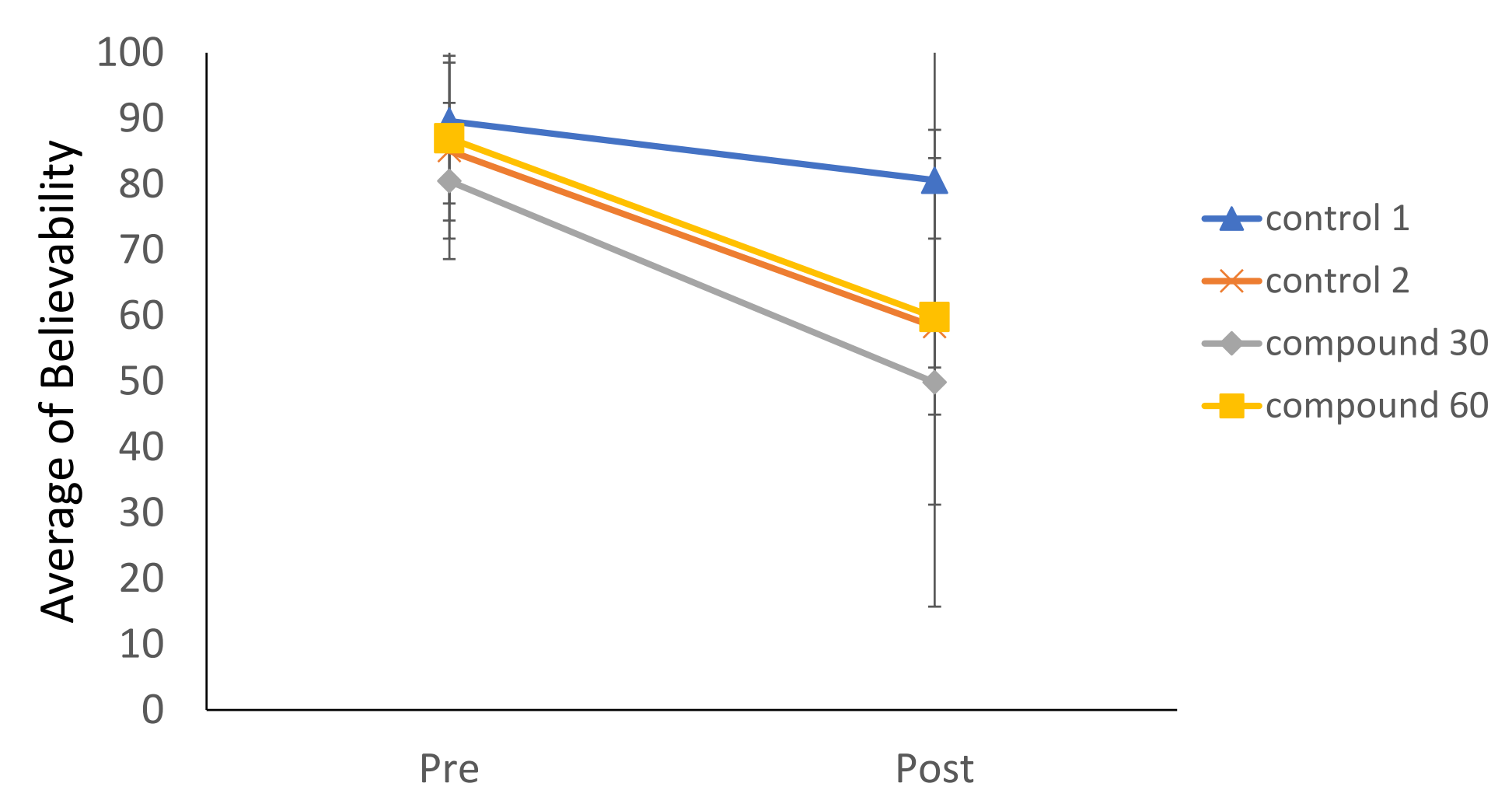
## Results

- ✓ ANOVA was conducted to negativity and believability. The effect size (within-d) was also calculated.
- (1) Negativity of words: **main effect of time and interaction**  
(Time:  $F(1, 30) = 64.99, p < .01$ ; Time×Groups:  $F(3, 30) = 3.46, p < .05$ )  
**Significant difference at post-treatment: control 2, compound 30, and compound 60 compared with control 1**  
(control1-control2:  $t(30) = 2.14, p < .05$ ; control1-compound word 30sec:  $t(30) = 2.34, p < .05$ ; control-compound word 60sec:  $t(30) = 2.44, p < .05$ )



	Time
Effect size (between Pre and Post)	
control1	0.67 [ -0.43 , 1.77 ]
control2	2.48 [ 1.15 , 3.81 ]
compound 30	1.65 [ 0.41 , 2.89 ]
compound 60	2.11 [ 0.87 , 3.36 ]

- (2) Believability of words: **main effect of time**  
(Time:  $F(1, 30) = 37.85, p < .01$ )



	Time
Effect size (between Pre and Post)	
control1	0.55 [ -0.54 , 1.65 ]
control2	1.47 [ 0.34 , 2.6 ]
compound 30	1.20 [ 0.03 , 2.36 ]
compound 60	1.24 [ 0.15 , 2.33 ]

## Conclusion

- ◆ WR reduces negativity toward negative words related to self regardless of the word type.
- ◆ However, the effectiveness for believability was not enough.  
→ a part of the hypothesis was supported
- ◆ It is possible that this was caused by the limited number of participants, however, there is also the possibility that believability is difficult to change using WR.

