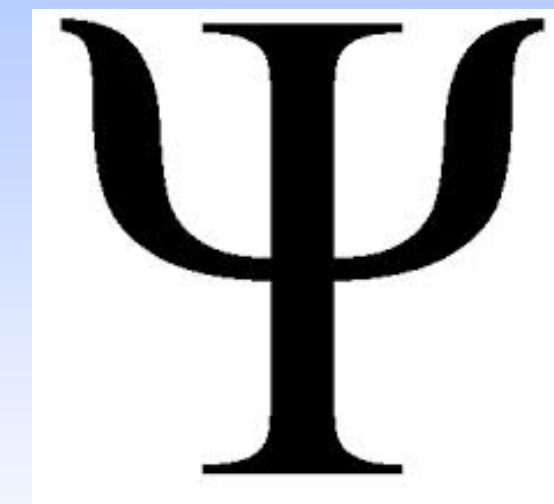


The Effect of Noise Distractions on Creativity



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Introduction

Understanding how external stimuli influences creativity will help to impact our understanding of human interaction with their environment.

Abele-Brehm (1992) had participants rate their moods and perform a creativity task (thinking of random uses for a can and string). This experiment demonstrated an increase in random uses with a positive mood. Having a negative mood led to increased production only in certain situations.

We also know that unpredictable audio distractions affect creativity. Kasof (1997) asked participants to write poetry. While performing this creativity task, each participant was exposed to distracting noises. Creativity was impaired by exposure to noise that was unpredictable.

The current study is a replication of Kasof (1997) with 2 changes: (1) participants were tested in groups rather than individually, and (2) our measures of creativity included thinking of random uses for an object as well as a self-report of creativity. Half of the participants heard distracting noises while listing random uses for an object, and half did not.

Predictions:

1. We predict that participants exposed to audible distractions would be less creative than those not exposed to distractions.
2. We also predict that the number of generated uses will have a positive correlation with self-reported creativity.

Methods

Participants

There were a total of 20 participants.

Materials

Creativity was measured with an adapted version of the Unusual Uses test (Adaman & Blaney, 1995) where participants were presented with an image of a trash can (see Figure 1) and asked to list as many uses for it as possible. Self-reported creativity was measured with the Creative Behavior Inventory Questionnaire (Hocevar, 1980; see Table 1). The distracting noises were six pre-selected ringtones from a cell phone.

Procedure

Participants were randomly assigned so that half of them were in the audible distraction group, and the other half were in the control group. They were first given 6 minutes to complete the Unusual Uses task. During these 6 minutes, the distraction group heard ringtones played 12 times, each for 5-9 seconds. Then participants completed the Creative Behavior Inventory Questionnaire and were debriefed.

Figure 1



Table 1

Sample questions from the Creative Behavior Inventory Questionnaire

- Q1: How many times have you painted an original picture?
Q2: How often have you made jewelry?
Q3: Have you ever kept a sketch book?

Results

An independent samples t-test on the number of listed items showed no significant effect of distraction on creativity, $t(18) = .55, p = .59$. See Figure 2.

For self-reported creativity, the t-test showed that the control group had a significantly higher score than the experimental group, $t(18) = 3.57, p = .002$.

Using a bivariate correlation test with number of listed items and the self-reported creativity as our dependent variables, we found no significant correlation, $r(18) = .24, p = .31$. See Figure 3.

Figure 2

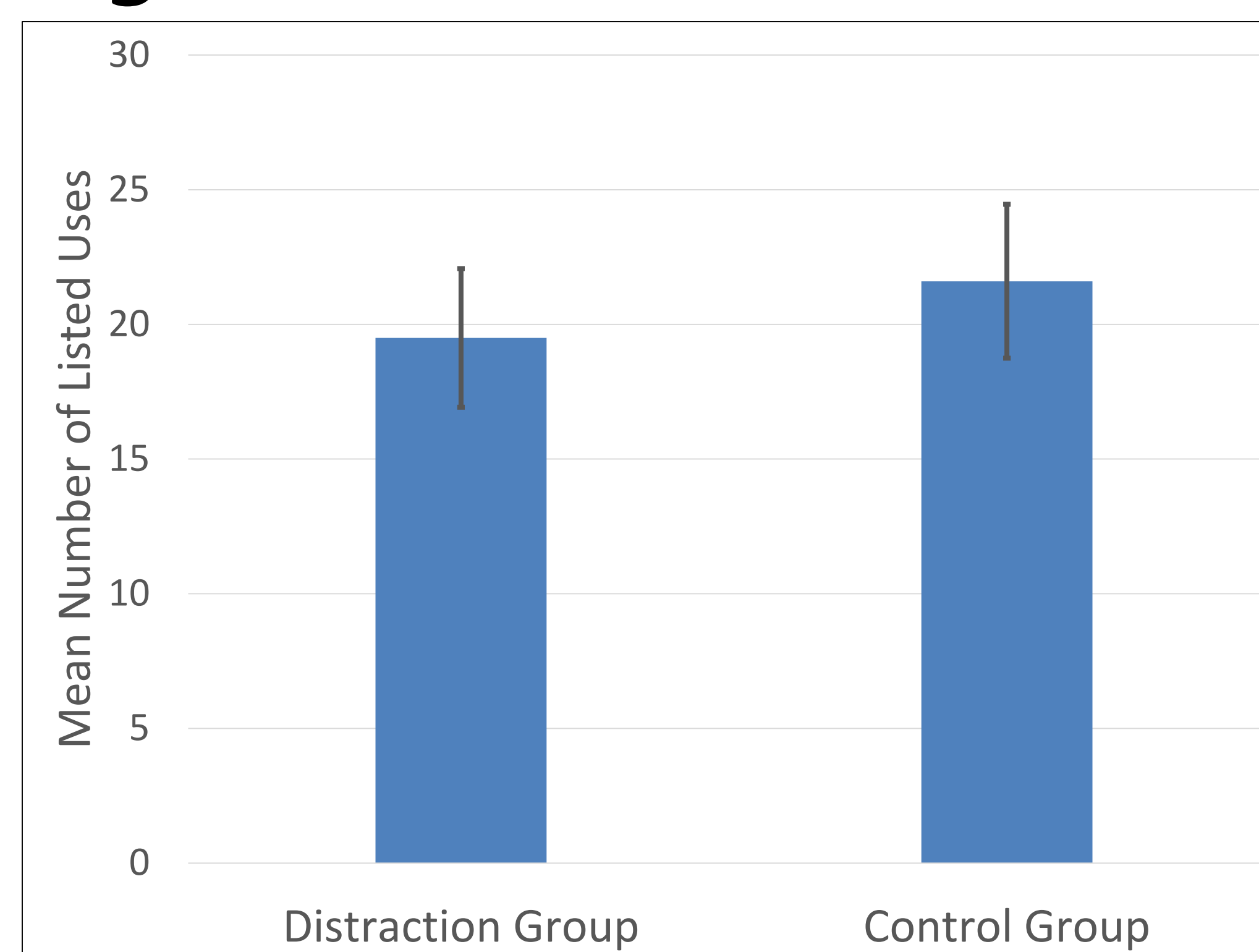
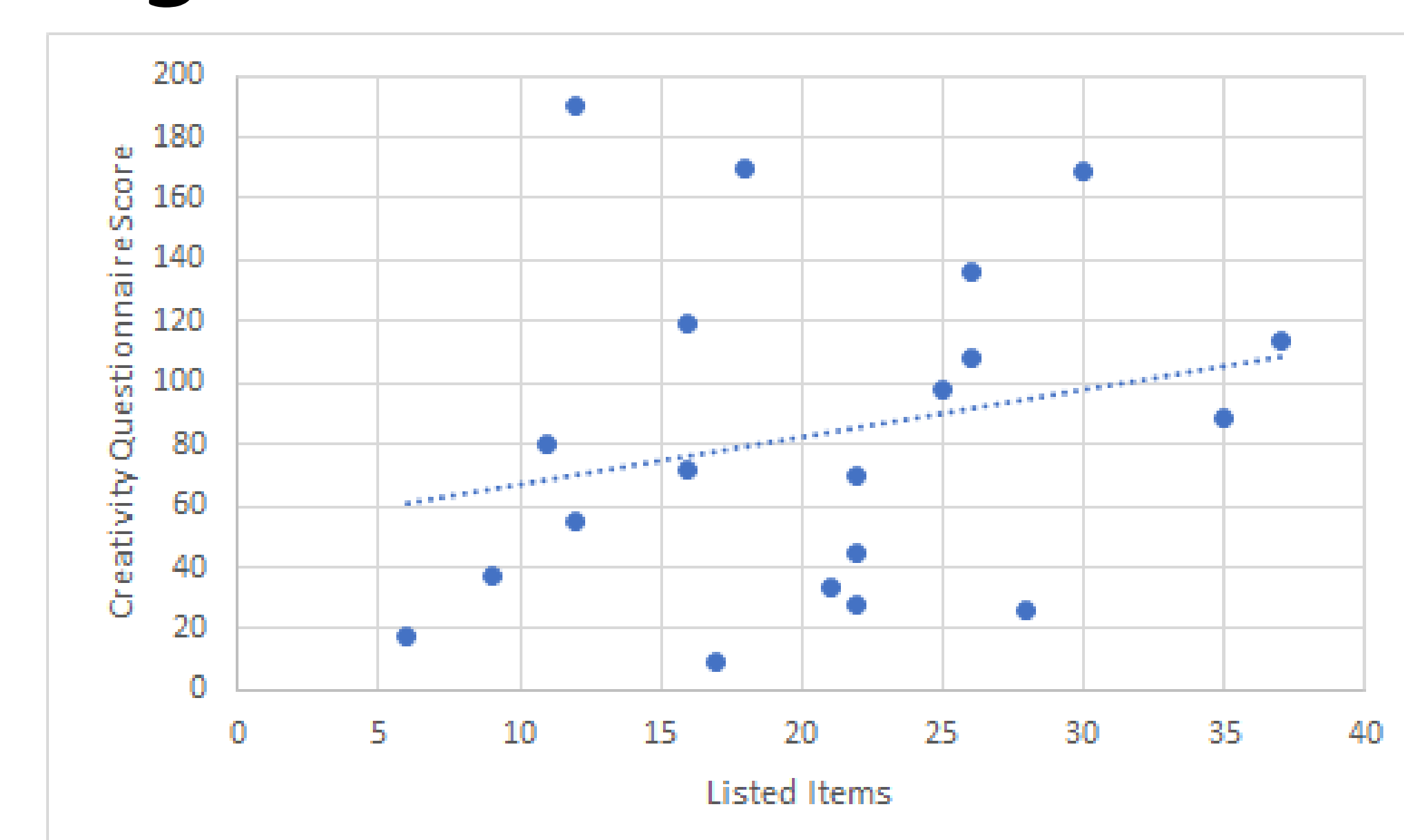


Figure 3



Conclusions

The observed patterns were not consistent with our expectations. While the experimental group created fewer possible uses and potential problems than the control group, these differences were due to chance.

In order to increase internal validity, we could look at the majors of each of the participants. For example, if one group had more art majors than the other group, then the distribution of artistic ability and natural levels of creativity could have been a confounding variable. This idea is consistent with the finding that the two groups were not equated in self-reported levels of creativity.

The participants in our experiment did not do significantly worse at the creativity task than the control group did, suggesting that creativity did not decrease with the addition of noise.

References

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