

One of the most crucial areas of research in psychology is attention. When we examine attention, particularly visual attention, the visual search method proves to be quite helpful since it allows us to gauge visual attention while still being a completely separate area of study. Visual, cognitive, and sensory processes all play a role in visual search. The demands on your attention might shift if you modify the search job. Attention alters visual search by selecting and restricting the information accessible at various levels of processing. By focusing on the intersection of attention and search, a relatively ordered window into the large domain of attentional events is created. The effects of divided attention and selective attention, respectively, are best shown by the effects of set size (the quantity of stimuli in a display) and the effects of cueing subsets of stimuli within the display. The ability to consciously find a goal or object amidst a complex array of stimuli has been the subject of extensive investigation. Visual search is employed while selecting a product from a grocery store shelf, when animals are searching for food among piles of leaves, when trying to locate a buddy in a busy environment, and in other real-world scenarios.

Method:

The participant has to choose between a bunch of distractors and find a 'T' among them by clicking on them by a mouse or a keyboard response.

- A cross fixation is added in the center for 1 second.
- A text component for 'T' target is added for an infinite time frame.
- A text component for the distractor which is a 'L' text component is added for an infinite time frame.
- The text component for the distractor is replaced with lines of codes, in the begin routine and the end routine section of the code.

```
if random() greater than 0.5:
```

```
    num_distr = 10
```

```
    thisExp.addData('num_distr', num_distr)
```

```
else:
```

```
    num_distr = 5
```

```
    thisExp.addData('num_distr', num_distr)
```

```
distractors = []
```

```

for i in range(num_distr):

distr = visual.TextStim(win=win, name='distr',
text='L',
font='Open Sans',
pos=(random()-0.5, random()-0.5), height=0.1, wrapWidth=None, ori=randint(0,360),
color='white', colorSpace='rgb', opacity=None,
languageStyle='LTR',
depth=0.0);

distractors.append(distr)

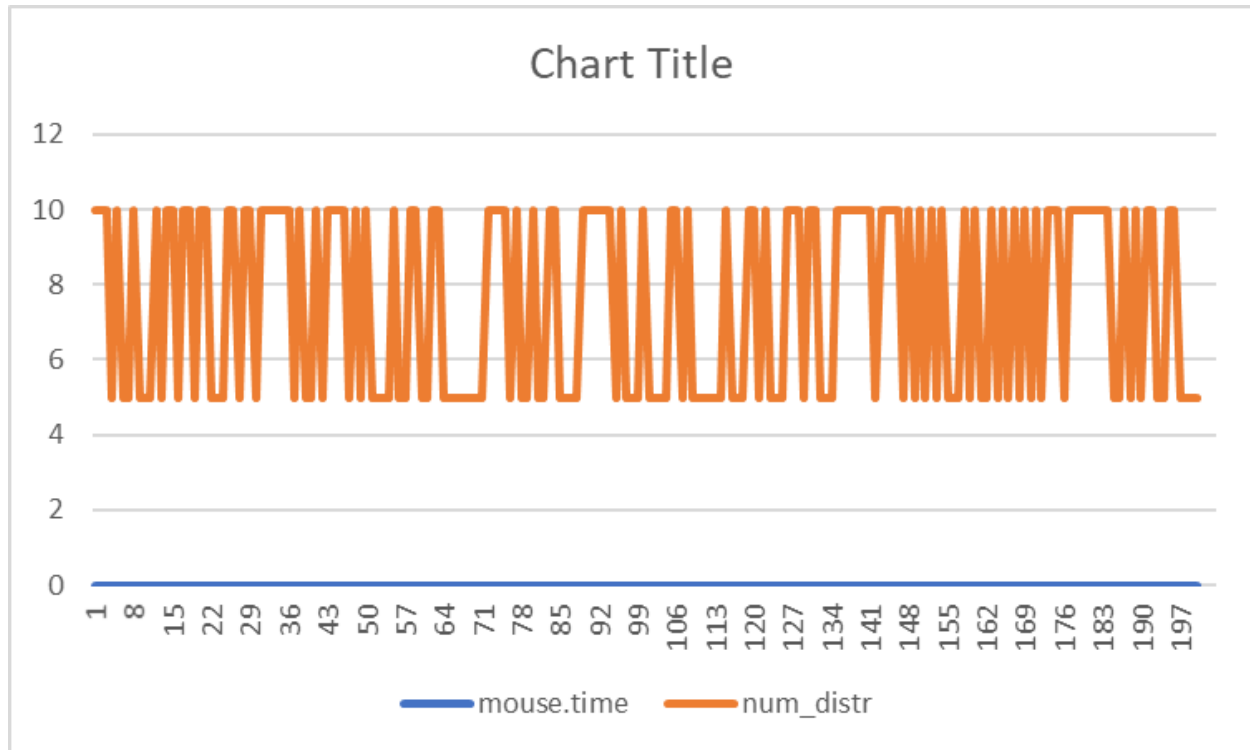
for distr in distractors:

distr.setAutoDraw(True)

```

- Make the position of the 'T' random.
- Add a mouse response with which the observer can select the 'T' for the experiment.
- Change every time too, 'until response' time frame.
- Addition of a loop to the whole psychopy program.
- The program is set for 200 repetitions.

Result:



Average RT

When distractors where 10, it took more time to find 'T'.

DISCUSSION

The data gathered indicates that the reaction time is somewhat slower in the 10 set size compared to the 5 set size.

GitHub link:

<https://github.com/ShrishtiMaheshwarii/Tutorial-3>

REFERNCES:

Davis, E. T., & Palmer, J. (2004). Visual search and attention: an overview. *Spatial vision*, 17(4-5), 249–255. <https://doi.org/10.1163/1568568041920168>