

IT351- HCI Laboratory Exercise-2

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181IT244

1) Prepare a list of 8 to 10 animals. Read this list sequentially and slowly to your friends within a stipulated time. Then ask them to recall the items in the list freely. Record the recall frequencies of these words. Analyze whether the recall % varies with the position of each item within the list? Does the behaviour change for each individual? Does it have something to do with the individual's favourite animal? What is the general trend?

Improvement In UI:-

Solution:

For the following experiment I have chosen 9 animals for equal distribution

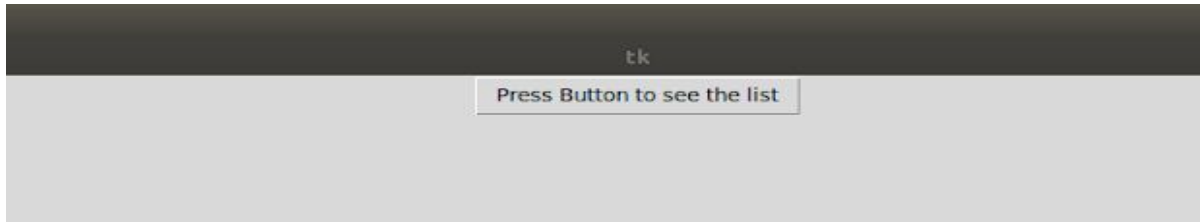
- 1) Dog
- 2) Cat
- 3) Cow
- 4) Horse
- 5) Monkey
- 6) Lion
- 7) Tiger
- 8) Bear
- 9) Gorilla

The exercise showed that when users are presented with a list of words, they tend to remember the first few and last few words and are more likely to forget those in the middle of the list.

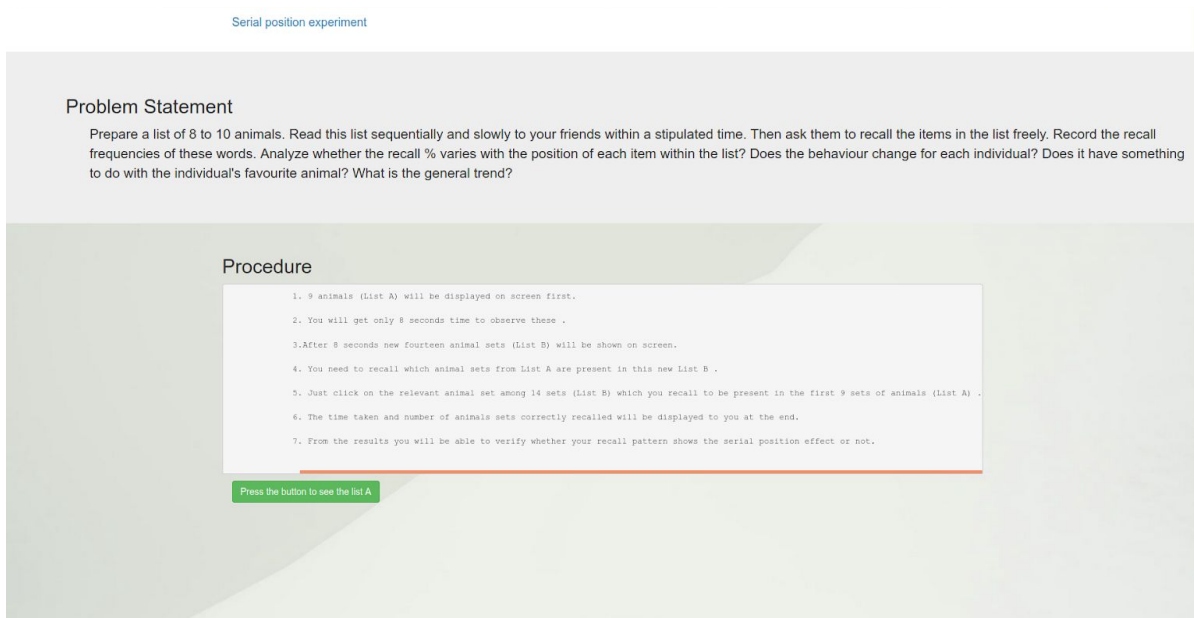
Analysis:

One such example is given below with screenshots of improvement in UI:-

Before:

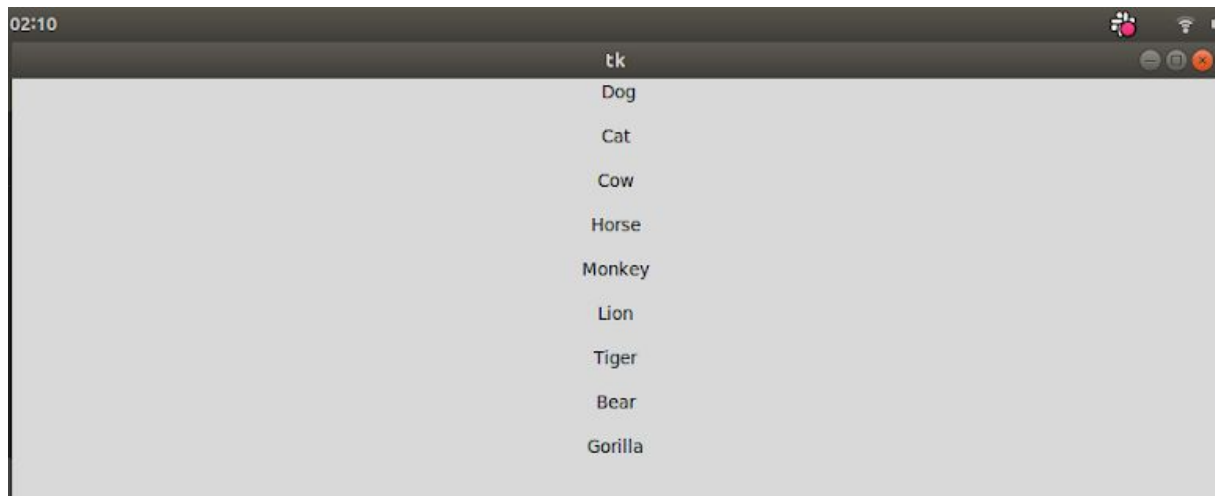


After:

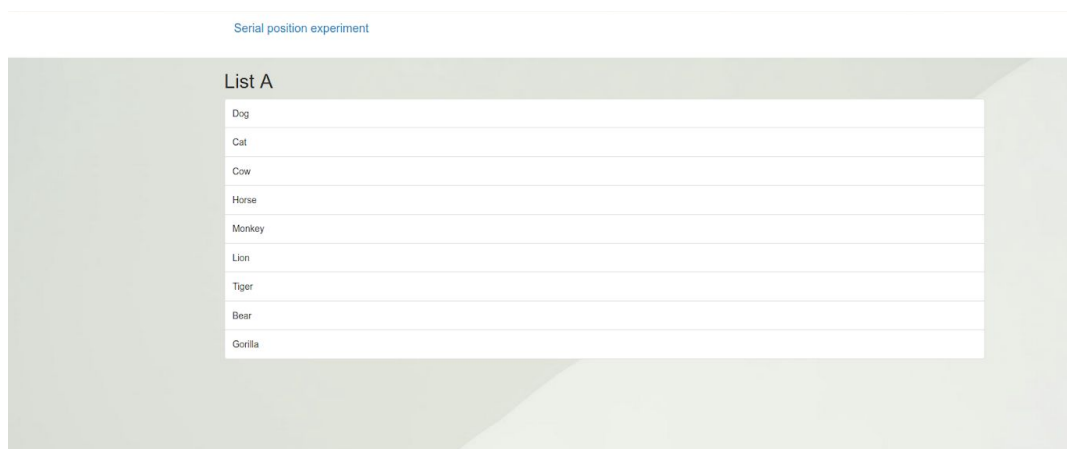


As soon as the user clicks the link he/she will be able to see a list of animals and will have 8 secs to remember it.

Before




After:



After 8 sec the user can click all the animal names he/she remembers and click on the button which will give basic analysis of the user input.

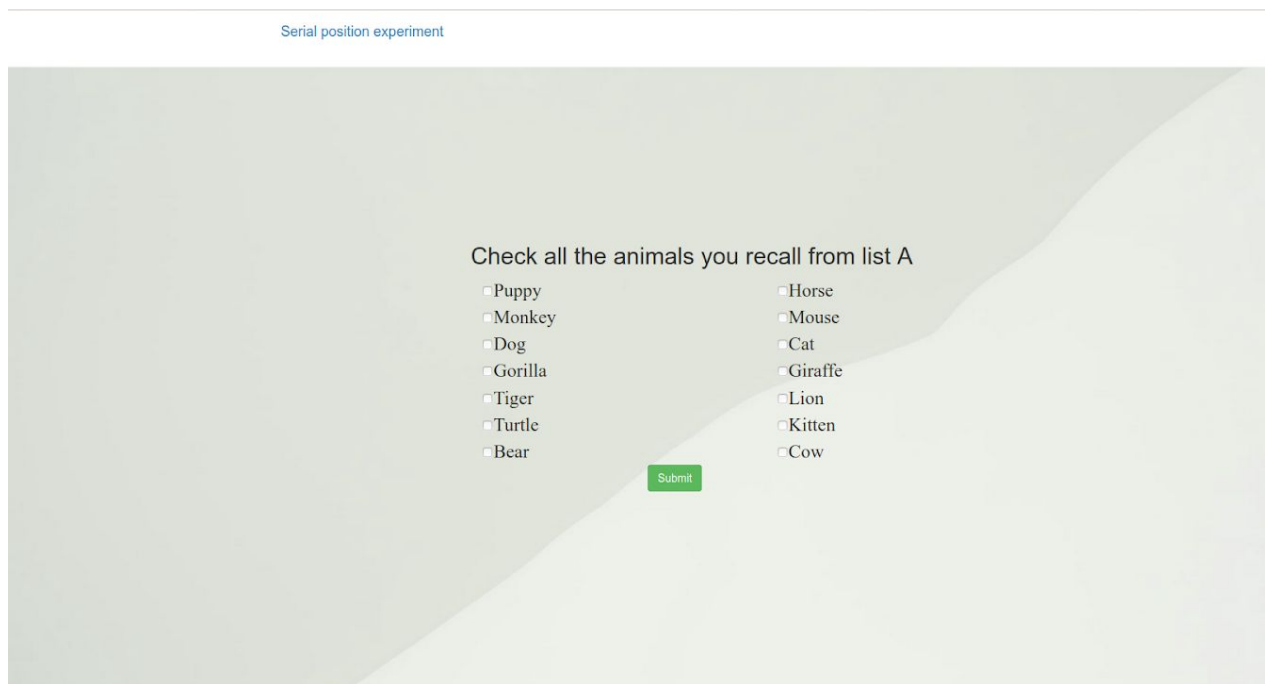
Before:



dog, cat, lion, tiger, gorilla

See the list

After:



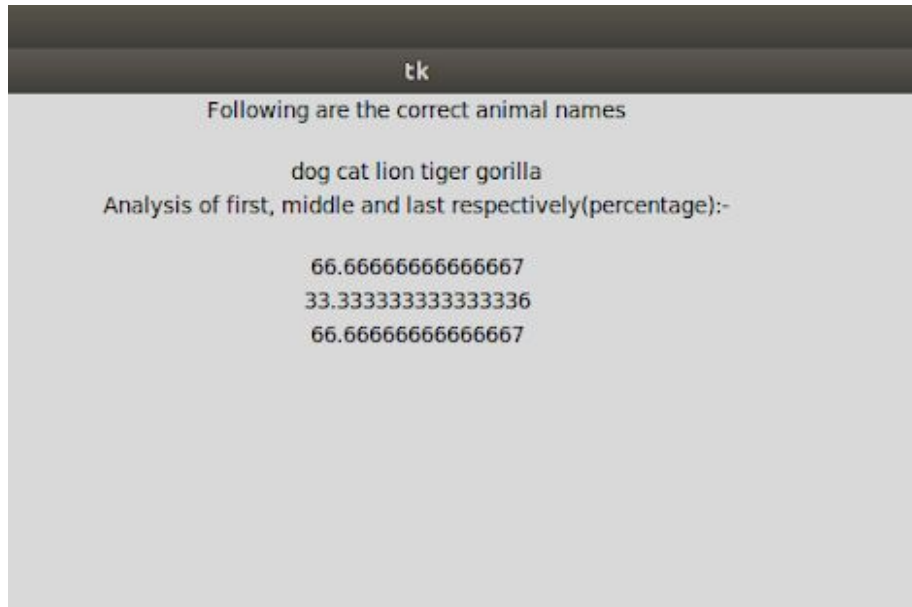
Serial position experiment

Check all the animals you recall from list A

<input type="checkbox"/> Puppy	<input type="checkbox"/> Horse
<input type="checkbox"/> Monkey	<input type="checkbox"/> Mouse
<input type="checkbox"/> Dog	<input type="checkbox"/> Cat
<input type="checkbox"/> Gorilla	<input type="checkbox"/> Giraffe
<input type="checkbox"/> Tiger	<input type="checkbox"/> Lion
<input type="checkbox"/> Turtle	<input type="checkbox"/> Kitten
<input type="checkbox"/> Bear	<input type="checkbox"/> Cow

Submit

Before:



In our case the user could remember **66.67%** of the number of earlier words and recent words and only **33.33%** of middle words.

After:

In this case I have compared the frequency of words to the total number of words unlike in previous python gui where I considered only for the particular category.

Result

Time taken : 21s

Analysis of animals chosen based on position(%):

First = 33.33333333333336

Middle = 11.11111111111111

End = 33.33333333333336

Previous findings

The experiment was done on 10 people, following are the analysis (correctly chosen animals) :-

1. dog, cat, lion, tiger, giraffe
2. lion, tiger, cat
3. cat, dog, bear, tiger
4. dog, cat, bear, lion, tiger
5. gorilla, bear, tiger, lion, dog
6. dog, cat, lion, tiger
7. cow, tiger, lion, dog
8. cat, bear, lion, tiger
9. gorilla, bear, horse, dog, cat
10. tiger, lion, cat, dog, horse

5. gorilla, bear, tiger, lion, dog
6. dog, cat, lion, tiger
7. cow, tiger, lion, dog
8. cat, bear, lion, tiger
9. gorilla, bear, horse, dog, cat
10. tiger, lion, cat, dog, horse

Frequency percentage of words:-

- 1) Dog- 80%
- 2) Cat - 80%
- 3) Cow- 10%
- 4) Horse- 20%
- 5) Monkey-0%
- 6) Lion- 80%
- 7) Tiger - 90%
- 8) Bear - 50%
- 9) Gorilla - 20%

Analysis

The distribution might have a certain trend. People seem to remember dog, cat, and lion tiger as the most common animals we can think of. Plus there is a possibility that since dog and cat were read first, it's the first thing they will remember. Horse and monkey was very hard for people to recall. Gorilla, a bear which isn't very common for people to think of, was recalled better as it was the most recent animal they read. Lion had quite a remarkable remembrance probably due to favoritism in the group.

This is known as the serial position effect. The tendency to recall earlier words is called the primacy effect; the tendency to recall the later words is called the recency effect. One or two names can vary depending on whether the animal is users favorite animal or a pet etc. But in general cases the principle of serial position effect remains.

The experiment was done on 10 people, following are the analysis :-

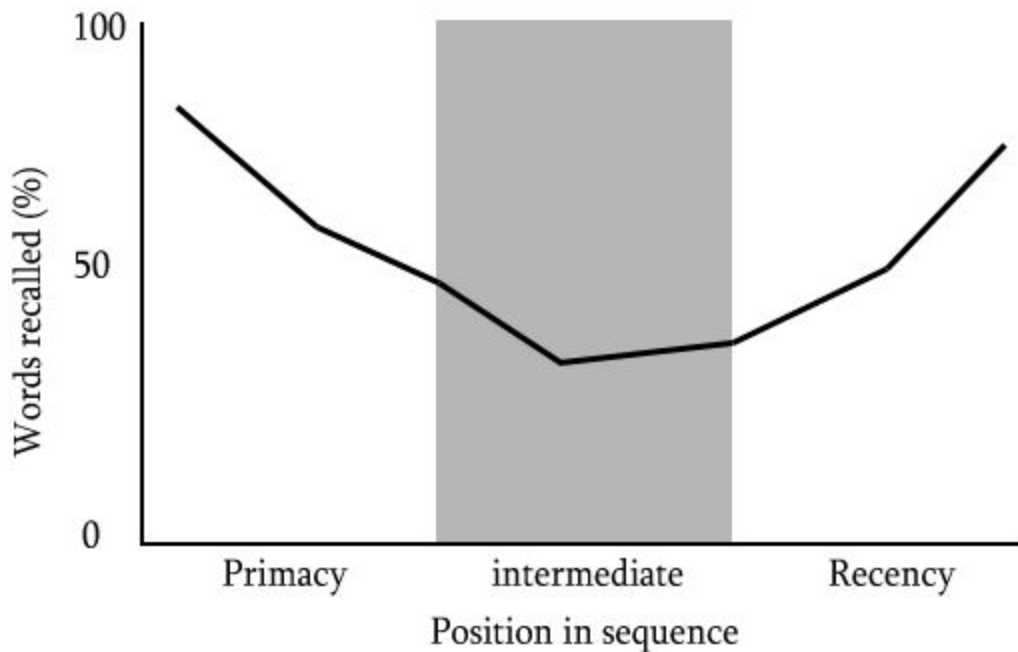
- 1) dog, cat, lion, tiger, giraffe
- 2) lion, tiger, cat
- 3) cat, dog, bear, tiger
- 4) dog, cat, bear, lion, tiger

- 5)gorilla,bear,tiger,lion,dog
- 6)dog,cat,lion,tiger
- 7)cow,tiger,lion,dog
- 8)cat,bear,lion,tiger
- 9)gorilla bear horse dog cat
- 10)tiger lion cat dog horse

Frequency percentage of words:-

- 1) Dog- 80%
- 2) Cat - 80%
- 3) Cow- 10%
- 4) Horse- 20%
- 5) Monkey-0%
- 6) Lion- 80%
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