18 experiments will be performed on 18 subjects. Subjects will randomly be divided into 3 groups of 6 and designated A, B, and C.

Using an IVR system, subjects will be asked to navigate a structure containing 40 household items and select target items.

Each group will interact with a unique structure. Each structure within a group will remain consistent. Group A will interact with a list. Group B will interact with a shallow hierarchy. Group C will interact with a deep hierarchy.

Each group will search for the same 5 target items. Each item is associated with a number. This number is equivalent to how many items a subject would see if they performed a brute force search of the structure—the first item in the list would be 1 and the last would be 40. The following items are the targets:

3: pants

10: blouse

19: rings

29: football

36: plate

Each subject will perform 5 tasks. Each task will consist of selecting a target item from the structure that corresponds to their group. I.e. Group A will select items from a list, Group B from a shallow hierarchy, and Group C from a deep hierarchy.

Each subject will be asked to select the same 5 targets in the same order. The order of targets will be determined by increasing value of the associated number, such that each subject will be asked to find, in order, “pants”, “blouse”, “rings”, “football”, and “plate”.

Each subject will be given 2 minutes to complete each task.

Experiments will be constructed as follows:

Subjects will be assigned a group before entering the room. They will be asked to sit and read the following statement:

“You will be using an interactive voice response system. You will sit at this computer and interact with a keypad on the screen. The system will read you choices. Choices are selected by pressing the number as told by the system. You will be asked to find 5 items by using the system and pressing the number corresponding to your target item. During the task you may be asked to proceed to the next task. We will now walk through a simple example.”

The example will consist of a simple five item list of animals where we are asked to select “cat”.

After completing the example, the experimenter will proceed to the script on the data collection form.

**Subject Number**:

**Group**: A B C

“We will now begin the experiment. You will be asked to select 5 items from a list of common household items.”

PANTS: “Please select pants.”

**Time begun:**

**Time completed: PROMPTED TO PROCEED**

**Final selection:**

BLOUSE: “Please select blouse.”

**Time begun:**

**Time completed: PROMPTED TO PROCEED**

**Final selection:**

RINGS: “Please select rings.”

**Time begun:**

**Time completed: PROMPTED TO PROCEED**

**Final selection:**

FOOTBALL: “Please select football.”

**Time begun:**

**Time completed: PROMPTED TO PROCEED**

**Final selection:**

PLATE: “Please select plate.”

**Time begun:**

**Time completed: PROMPTED TO PROCEED**

**Final selection:**

“The experiment is complete! Well done. Thank you for participating!”