

Immersive Design – Task Simulation Exercises

IDT-100 Introduction to Industrial Design

Fall 2013

Vision Impairment Simulation Task Series – Shop Usage

Directions: Put on the vision impairment simulation goggles and perform the following tasks with the provided Ray-O-Vac flashlight. Record your observations and discoveries. Add pages if you need more room for notes.

1. Locate the flashlight, which has been left in an unknown location.

The flashlight has no indicator or off light so it is very difficult. The vision impairment mostly effects reading small things, or working with small things.

How easy was it to locate the flashlight?

Very easy 1 2 3 4 5 Very difficult

2. Find the 7/16" sized wrench from the provided wrench set.

Can not read very well, I myself could make out numbers. It is better to judge size and test fit the wrenches to the bolt.

How easy was it to find the correct wrench?

Very easy 1 2 3 4 5 Very difficult

3. Use the 7/16" wrench to tighten the provided bolt into the provided block of wood.

If you do not use tools often this would be difficult. Someone who works with wrenches often wouldn't have as much trouble.

How easy was it to tighten the bolt?

Very easy 1 2 3 4 5 Very difficult

(over)

Arthritis Simulation Task Series – Around the Home Usage

Directions: Put on the arthritis simulation gloves and perform the following tasks with all three provided flashlights. Record your observations and discoveries. Add pages if you need more room for notes.

Tighten the pipe fitting with the pipe wrench.

Flashlight #1 (Smallest diameter)

Difficult to pick up because of how small. Joints must bend a lot, button on back is difficult to push with one hand. needs two.

How easy was it to pick up the flashlight?

Very easy 1 2 3 4 5 Very difficult

How easy was it to turn on the flashlight?

Very easy 1 2 3 4 5 Very difficult

How easy was it to tighten the pipe fitting?

Very easy 1 2 3 4 5 Very difficult

Flashlight #2 (Largest diameter)

Easiest to use. Large cylindrical diameter did not strain the hand near as much as the others. ~~was~~ to turn on. Twist wasn't too hard but still took effort.

How easy was it to pick up the flashlight?

Very easy 1 2 3 4 5 Very difficult

How easy was it to turn on the flashlight?

Very easy 2 3 4 5 Very difficult

How easy was it to tighten the pipe fitting?

Very easy 1 2 3 4 5 Very difficult

Flashlight #3 (medium diameter)

Very difficult to turn on. Power switch was small and in a recessed area. Body shape was awkward and strained the hand.

How easy was it to pick up the flashlight?

Very easy 1 2 3 4 5 Very difficult

How easy was it to turn on the flashlight?

Very easy 1 2 3 4 5 Very difficult

How easy was it to tighten the pipe fitting?

Very easy 1 2 3 4 5 Very difficult

medium difficulty

hard to turn
or one handed

Night Vision Task Series – Navigate the Obstacle Course

Directions: Perform the following tasks with and without the provided flashlight. Record your observations and discoveries. Add pages if you need more room for notes.

Using the provided timer, navigate the obstacle course from the front of the room to the back WITHOUT the flashlight.

Had to look at the floor, difficult to make out boxes
but possible. had to be careful. old man (Carl) had more trouble
than vs younger people had.

How long did it take to complete the course? 8.5

How easy was it to navigate the course?

Very easy 1 2 3 4 5 Very difficult

1. Using the provided timer, navigate the obstacle course from the back of the room to the front WITH the flashlight.

Had to look at the floor. Made seeing boxes easier, didn't
have to be that careful.

How long did it take to complete the course? 7.8

How easy was it to navigate the course?

Very easy 1 2 3 4 5 Very difficult