

4. EXPERIMENTAL DESIGN

Phase I

Selection of the site and subjects (n=5228)

General demographic study (Height, Weight, BMI)

Phase II

Fabrication of simulated prototypes for stereotypic study

Analog display units:

1. Horizontal display & rotary switch
2. Vertical display & rotary switch
3. Semicircular display & rotary switch
4. Intensity testing display & rotary switch
5. Semicircular display-spatially aligned rotary switches

Rocker switch-light units:

1. Horizontal rocker switch-electric light
2. Vertical rocker switch-electric light

Digital display units:

1. Digital display- vertically sliding switch
2. Digital display-horizontally sliding switch
3. Digital display-rotary switch
4. Digital display-spatially aligned rotary switches

Evaluation of **direction and strength of motion stereotype and response initiation time**

Evaluation of **Index of reversibility (IR)**

Evaluation of Impact of some factors (**Age, sex, handedness, educational and socioeconomic status, rural-urban variation**) on stereotype

Impact of **cardiovascular stress, heat stress and work related psychological stress on stereotype**

Phase III

Preparation of colour chart

Colour stereotypic study

Phase IV

Application of motion stereotype in interface modification

Selection of subjects

Habituated users of gas oven

Non users of gas oven

Evaluation of **direction of motion stereotype and Error analysis** during operation of the existing two-burner gas oven

Modification of function of the existing gas oven