# Time

No assumptions violated

Used transformed data

Trimmed 4 outliers

1. There was a main effect of Input method on time. F(1,278)=22.913, p < .000  
2. Pairwise comparisons showed that users spent sig. more time on the gaze method (gaze M = 21.429 sec. SD = 0.2188, manual M= 17.378 sec, SD = 0.1985)

1. There was a main effect of Technique on time. F(2,281)=5.235, p = 0.024  
2. Pairwise comparisons showed that users spent sig. less time using the FZ technique compared to the DZ technqiue (FZ M = 17.179 sec. SD = 0.20417, DZ M= 21.086 sec, SD = 0.19169). No significant differences were found between FZ and MIX nor between DZ and MIX.

1. There was a main effect of Target on time. F(2,278)=5.7, p = 0.016  
2. Pairwise comparisons showed that users spent sig. less time to capture the regular targets compared to the irregular targets (regular M = 16.558 sec. SD = 0.19850 , irregular M= 23.121 sec, SD = 0.17626). No significant differences were found between regular targets and patient targets nor between irregular targets and patient targets.

1. There was an interaction effect between Input Method and Target on time. F(2, 275) = 9.906, p < .000

2. Bonferroni post hoc tests examining the interaction effects found that users take significantly less time when using the eye gaze input to scan regular targets compared to using the eye gaze input to scan patient targets (p < .000).

In addition, differences were found when using the manual input method depending on the type of target scanned. Users took significantly longer scanning irregular targets in comparison to regular targets (p = 0.012) and took significantly longer scanning irregular targets compared to patient targets (0.002).

# Eye Movement Velocity

No assumptions violated except for kurtosis of -1.82 in the mixed technique data.

No transformation used

Trimmed 3 outliers

1. There was a main effect of Technique on eye movement velocity. F(2,282)=7.129, p = 0.004  
2. Pairwise comparisons showed users’ eye velocities are significantly faster using DZ (M = 0.914, SD = 0.34673) compared to FZ (M = 0.724, SD = 0.37342)

1. There was a main effect on target. F(2, 277) = 15.544, p < .000.

2. Pairwise comparisons showed that users’ eye velocities are significantly faster when scanning patient targets (M = 0.65, SD = 0.32002) compared to regular phantom targets (M = 0.863, SD = 0.40187). Similarly, velocities are higher scanning patient targets compared to irregular phantom targets (M = 1.022, SD = 0.31592). No significant difference in eye velocity was found between results and irregular phantom targets.

1. There was an interaction effect between Input Method and Target on eye movement velocity. F(2, 275) = 5.009, p = 0.028

2. Bonferroni post hoc tests examining the interaction effects found that users’ eye velocities are significantly different across input methods only when users were scanning regular phantom targets (p = 0.001). There are no significant differences across input methods in terms of eye movement velocities when users are scanning the patient or scanning irregular phantom shapes.

# Fixation Rate

No assumptions violated

No transformation required

Trimmed 5 outliers

1. There was a main effect of Target on fixation rate. F(2,421767)=6.216, p = 0.008  
2. Pairwise comparisons showed users’ fixation rates are significantly higher scanning irregular phantom targets (M = 0.0019, SD = 0.00032) compared to scanning patient targets (M = 0.0016, SD = 0.00037).

# Mean Fixation Duration

No assumptions violated

Transformation used: Log 10

Trimmed 6 outliers

1. There was a main effect of Input Method on mean fixation duration. F(2,274)=17.277, p < .000  
2. Pairwise comparisons showed users’ mean fixation durations are significantly higher using gaze input methods (M = 483.6153, SD = 0.09993) compared to manual methods (M = 427.2676, SD = 0.10707)

# Mean Path Distance

No assumptions violations

No transformations

3 outliers eliminated

1. There was a main effect of Technique on mean path distance. F(2, 10.620)= 10.620, p < .000  
   2. Pairwise comparisons showed users’ fixations mean path distances are significantly longer using DZ (M = 556.6652, SD = 174.94782) compared to FZ (M =356.6019, SD = 183.66056), p < .000
2. There was a main effect of Target on mean path distance. F(2, 278)= 7.154, p = 0.004  
   2. Pairwise comparisons showed users’ fixations mean path distances are significantly longer scanning phantom regular (M = 424.5780, SD = 216.83149) and phantom irregular (M =579.5381, SD = 155.03641) compared to patient targets (M = 395.1752, SD = 183.20528), with p values of < .000 and 0.002 respectively.