Fitbit & ET Glasses - Methods

Initial Preparations

Run following Code only if new data is added to the initial data.

FitBit

All participants were given a FitBit Smart Watch to wear during the experiment.

Heart Rate

The heart rate of each participant were measured during the experiment.

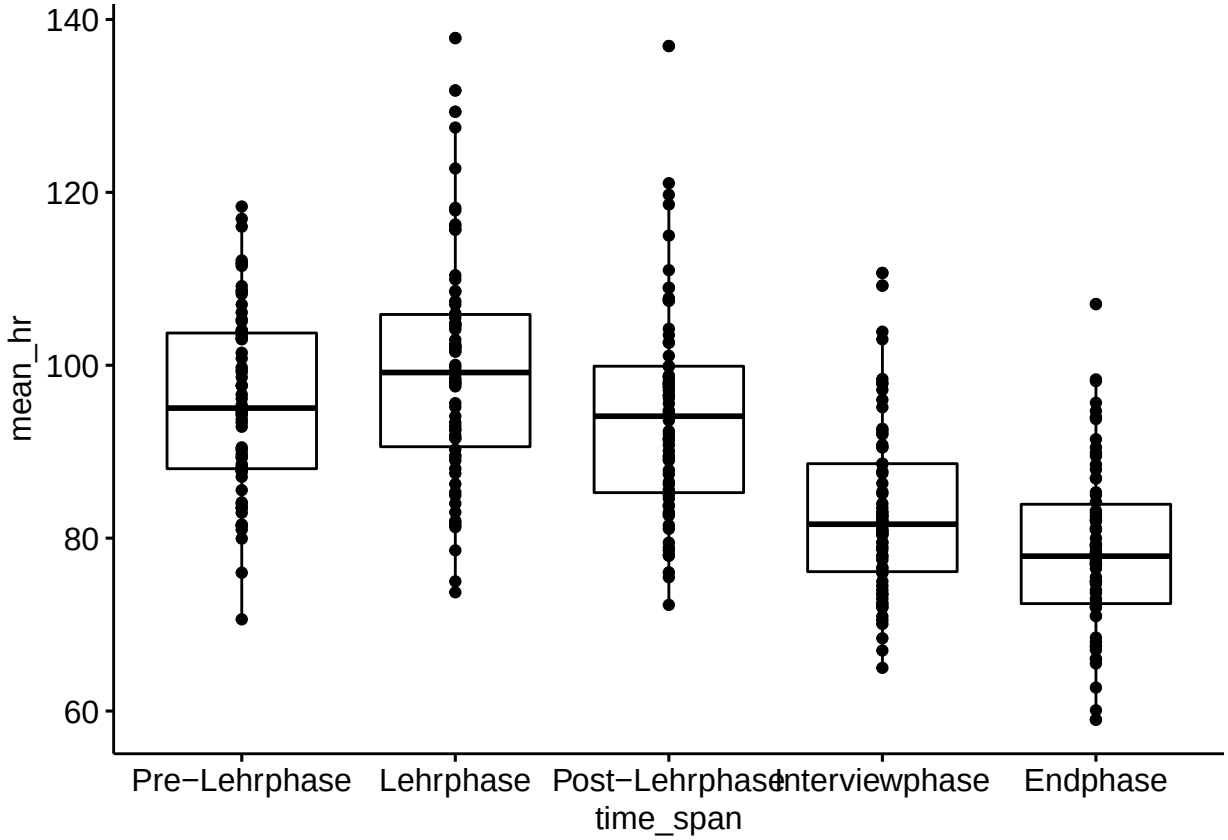
Repeated Measures ANOVA

```
## New names:
## `summarise()` has grouped output by 'ID'. You can override using the `.groups`
## argument.
## * `` -> `...5`
## * `` -> `...6`
## * `` -> `...7`
## * `` -> `...8`
## * `` -> `...9`
## * `` -> `...10`

##
##  Pre-Lehrphase      Lehrphase Post-Lehrphase Interviewphase       Endphase
##             70             70             70             70             70

##
##  Descriptive statistics by group
## group: Pre-Lehrphase
##    vars  n mean    sd median trimmed   mad   min    max range skew kurtosis
## X1    1 70 95.8 10.55  95.05   95.63 11.79 70.61 118.36 47.75 0.08    -0.67
##      se
## X1 1.26
## ------------------------------------------------------------
## group: Lehrphase
##    vars  n  mean    sd median trimmed   mad   min    max range skew kurtosis
## X1    1 70 99.73 13.43  99.16   98.96 11.47 73.74 137.85 64.11 0.52     0.15
##      se
```

```
## X1 1.61
## ------------------------------------------------------------
## group: Post-Lehrphase
##    vars  n  mean    sd median trimmed   mad   min    max range skew kurtosis
## X1    1 70 94.46 12.21  94.11   93.64 12.14 72.28 136.93 64.65 0.75     0.85
##      se
## X1 1.46
## ------------------------------------------------------------
## group: Interviewphase
##    vars  n  mean   sd median trimmed  mad min    max range skew kurtosis   se
## X1    1 70 83.07 9.87  81.61   82.32 9.44  65 110.68 45.68 0.69     0.13 1.18
## ------------------------------------------------------------
## group: Endphase
##    vars  n  mean   sd median trimmed  mad min    max range skew kurtosis   se
## X1    1 70 78.65 9.83  77.92   78.31 8.43  59 107.08 48.08 0.35     0.01 1.17
```




```
##                            Df Sum Sq Mean Sq F value Pr(>F)
## df_anova_subset$time_span   4  22712    5678    44.7 <2e-16 ***
## Residuals                 345  43819     127
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

##
##  Pairwise comparisons using t tests with pooled SD
##
```

```
## data:  df_anova_subset$mean_hr and df_anova_subset$time_span
##
##                Pre-Lehrphase Lehrphase Post-Lehrphase Interviewphase
## Lehrphase      0.079         -         -              -
## Post-Lehrphase 0.484         0.024     -              -
## Interviewphase 5.7e-10       7.8e-16   2.8e-08        -
## Endphase       < 2e-16       < 2e-16   1.7e-14        0.063
##
## P value adjustment method: holm
```

```
##                               eta.sq eta.sq.part
## df_anova_subset$time_span 0.3413791   0.3413791
```

Multiple Regression

```
## Adding missing grouping variables: ‘ID‘
```

```
## Warning: In lm.fit(x, y, offset = offset, singular.ok = singular.ok, ...) :
##  zusätzliches Argument ’family’ wird verworfen
```

```
##
## Call:
## lm(formula = mean_hr ~ mean_confi + mean_disrup + mean_te, data = df_lm_subset,
##     family = binomial)
##
## Residuals:
##     Min      1Q  Median      3Q     Max
## -27.720  -8.310   0.369   7.579  38.306
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept) 118.72841   14.89970   7.969 3.01e-11 ***
## mean_confi   -1.41971    1.49211  -0.951    0.345
## mean_disrup  -1.49985    1.42931  -1.049    0.298
## mean_te      -0.02287    0.19572  -0.117    0.907
## ---
## Signif. codes:  0 ’***’ 0.001 ’**’ 0.01 ’*’ 0.05 ’.’ 0.1 ’ ’ 1
##
## Residual standard error: 13.56 on 66 degrees of freedom
## Multiple R-squared:  0.02604,    Adjusted R-squared:  -0.01823
## F-statistic: 0.5882 on 3 and 66 DF,  p-value: 0.6249
```

```
##
## % Table created by stargazer v.5.2.3 by Marek Hlavac, Social Policy Institute. E-mail: marek.hlavac a
## % Date and time: So, Feb 19, 2023 - 20:06:19
## \begin{table}[!htbp] \centering
##   \caption{}
##   \label{}
## \begin{tabular}{@{\extracolsep{5pt}}lc}
## \\[-1.8ex]\hline
## \hline \\[-1.8ex]
##  & \multicolumn{1}{c}{\textit{Dependent variable:}} \\
```

```
## \cline{2-2}
## \\[-1.8ex] & mean\_hr \\
## \hline \\[-1.8ex]
##  mean\_confi & $-$1.420 \\
##   & (1.492) \\
##   & \\
##  mean\_disrup & $-$1.500 \\
##   & (1.429) \\
##   & \\
##  mean\_te & $-$0.023 \\
##   & (0.196) \\
##   & \\
##  Constant & 118.728$^{***}$ \\
##   & (14.900) \\
##   & \\
## \hline \\[-1.8ex]
## Observations & 70 \\
## R$^{2}$ & 0.026 \\
## Adjusted R$^{2}$ & $-$0.018 \\
## Residual Std. Error & 13.557 (df = 66) \\
## F Statistic & 0.588 (df = 3; 66) \\
## \hline
## \hline \\[-1.8ex]
## \textit{Note:}  & \multicolumn{1}{r}{$^{*}$p$<$0.1; $^{**}$p$<$0.05; $^{***}$p$<$0.01} \\
## \end{tabular}
## \end{table}
```