Comparative Cognition Numerosity Analysis of Cowlog data Part II

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This document takes the output from “Comparative Cognition Numerosity Cowlog Analysis.Rmd” and graphs relevant data. Comparative Cognition Numerosity Cowlog Analysis.Rmd takes all the individual cowlog score sheets for numerosity and summarized them into one datasheet, df.sum

Individuals in the data output from the first rmd: wahida, wheatley,winnifred, wisteria,wayne, gabi,wile, wyatt,wedelia, gavin,gretchen, wade,willis, gloria,waldhurga, garrison,george, waverly,wilbur, wildflower,gemma, gertrude,grayson, watson,gary, winter,georgiafixed, wendy,gladys, gibson,gina, griffin,gabriel, winona,gideon,gordon,

ORDER OF ANALYSIS: 1. Pairwise comparisons of the following (one value per individual) performance metrics: Average performance over full 4 minutes Average performance over T30 to T50 Proportion of correct first choices Average latency to approach correct side Mean of median perofomance on each ratio number of medians above 0.60 using full 4 minutes data number of medians above 0.60 using full 4 minutes data

1. Pairwise comparison of the performance metrics (one value per individual) to the following behavior metrics: Average number of entries Average reaction time
2. Investigating other factors (compare performance to): sex, size, order,
3. See how consistent individuals are across trials within the same individuals (so will have an average repeatibility score?) Performance over the full 4 minutes Performance over T30 to T50 Which side was chosen first

STATS: To determine if one slope is significantly different from zero: mod<- lm(y ~ x) summary(mod)

T-test to determine if two groups (boxplot with 2 groups) have significantly different distributions: t.test(y~x) # where y is numeric and x is a binary factor

Nonparametric version of a t test wilcox.test(y,x) (Note from previous script: you can use a shapiro test to test for normality)

one-way ANOVA to determine if any one group (boxplot with > 2 groups)has a significantly different distribution fit <- aov(y ~ A, data=mydataframe) summary(fit)

Nonparametric version of a one-way ANOVA kruskal.test(y ~ x, data = mydata)

Linerar model finding the interaction term: mod<-lm(y~a+b) e.g number of entries x performance (latency to enter correct) - does this relationship vary by sex? mod<-lm(performance~entries+sex) summary(mod)

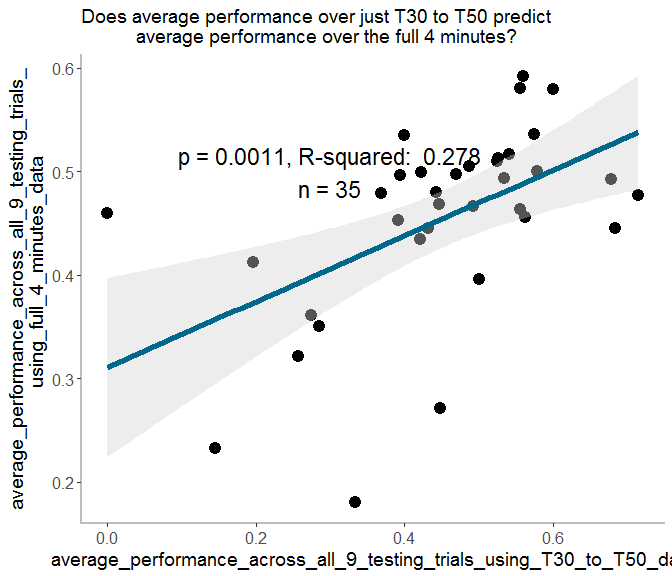
Template:

mod<- lm(dfXXX, na.rm = TRUE) summary(mod)

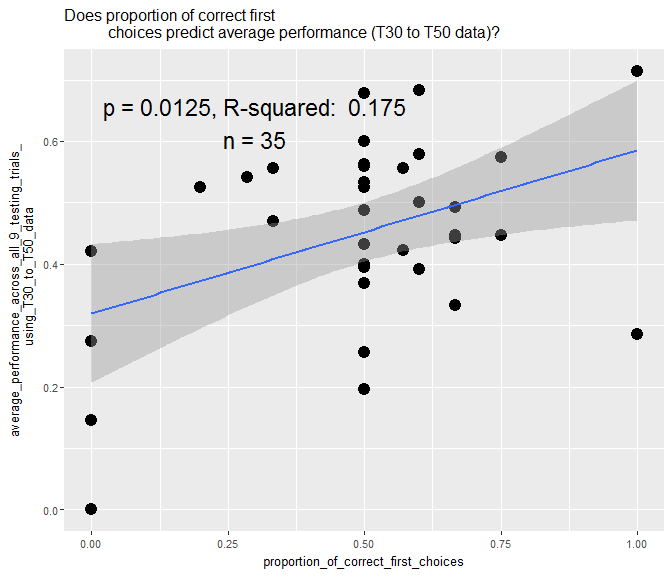
number <- df %>% filter(!is.na(XXX)) %>% filter(!is.na(XXX)) %>% nrow p\_value <- mod %>% broom::tidy() %>% filter(term != “(Intercept)”) %>% select(p.value) %>% unlist r\_squared <- mod %>% broom::glance() %>% select(r.squared) %>% unlist

p <- ggplot(df, aes(XXX, XXX)) p + geom\_point(size = 4) + theme(text = element\_text(size=10)) + annotate(“text”, x=50, y=0.5, label= glue::glue(“p = {round(p\_value,4)}, R-squared: {round(r\_squared,3)} n = {number}”), size = 6, color = “black”) + labs(x= “XXX”,y=“XXX”) + ggtitle (“XXX”) + geom\_smooth(method = “lm”)

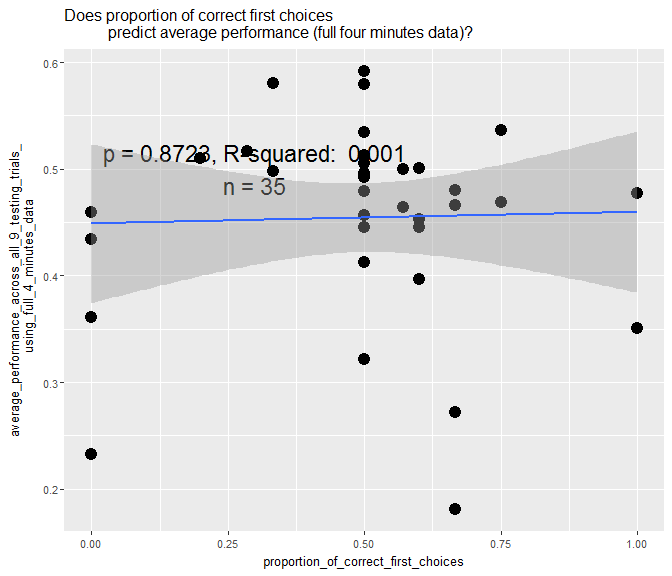
##   
## Call:  
## lm(formula = df$average\_performance\_across\_all\_9\_testing\_trials\_using\_full\_4\_minutes\_data ~   
## df$average\_performance\_across\_all\_9\_testing\_trials\_using\_T30\_to\_T50\_data,   
## na.rm = TRUE)  
##   
## Residuals:  
## Min 1Q Median 3Q Max   
## -0.23617 -0.03562 0.01565 0.04086 0.14883   
##   
## Coefficients:  
## Estimate  
## (Intercept) 0.31102  
## df$average\_performance\_across\_all\_9\_testing\_trials\_using\_T30\_to\_T50\_data 0.31752  
## Std. Error  
## (Intercept) 0.04245  
## df$average\_performance\_across\_all\_9\_testing\_trials\_using\_T30\_to\_T50\_data 0.08919  
## t value  
## (Intercept) 7.327  
## df$average\_performance\_across\_all\_9\_testing\_trials\_using\_T30\_to\_T50\_data 3.560  
## Pr(>|t|)  
## (Intercept) 2.07e-08  
## df$average\_performance\_across\_all\_9\_testing\_trials\_using\_T30\_to\_T50\_data 0.00115  
##   
## (Intercept) \*\*\*  
## df$average\_performance\_across\_all\_9\_testing\_trials\_using\_T30\_to\_T50\_data \*\*   
## ---  
## Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1  
##   
## Residual standard error: 0.07966 on 33 degrees of freedom  
## (1 observation deleted due to missingness)  
## Multiple R-squared: 0.2775, Adjusted R-squared: 0.2556   
## F-statistic: 12.68 on 1 and 33 DF, p-value: 0.00115



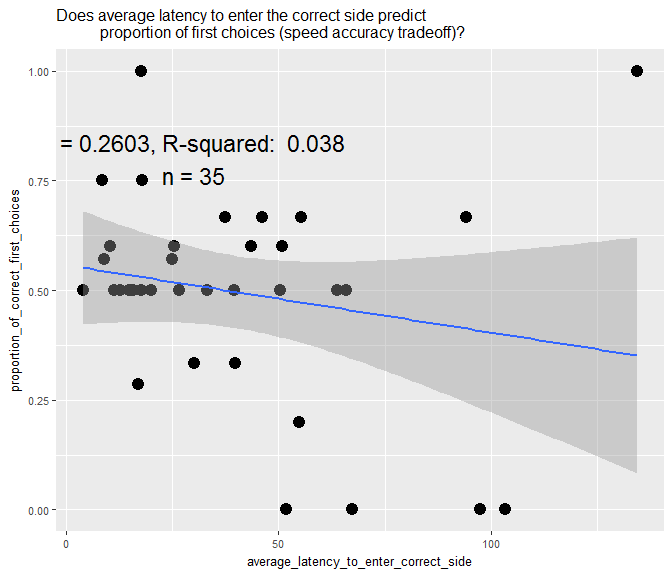
##   
## Call:  
## lm(formula = df$average\_performance\_across\_all\_9\_testing\_trials\_using\_T30\_to\_T50\_data ~   
## df$proportion\_of\_correct\_first\_choices, na.rm = TRUE)  
##   
## Residuals:  
## Min 1Q Median 3Q Max   
## -0.31967 -0.06499 0.02106 0.10404 0.22567   
##   
## Coefficients:  
## Estimate Std. Error t value  
## (Intercept) 0.31967 0.05525 5.786  
## df$proportion\_of\_correct\_first\_choices 0.26544 0.10045 2.643  
## Pr(>|t|)   
## (Intercept) 1.81e-06 \*\*\*  
## df$proportion\_of\_correct\_first\_choices 0.0125 \*   
## ---  
## Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1  
##   
## Residual standard error: 0.1412 on 33 degrees of freedom  
## (1 observation deleted due to missingness)  
## Multiple R-squared: 0.1746, Adjusted R-squared: 0.1496   
## F-statistic: 6.983 on 1 and 33 DF, p-value: 0.01249



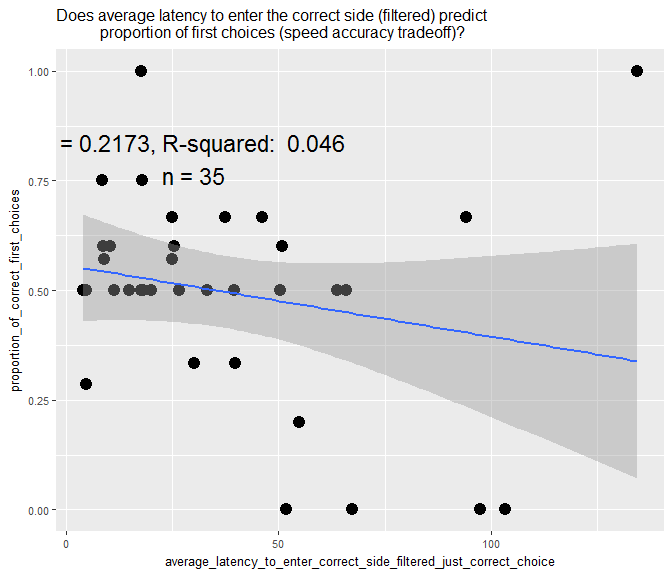
##   
## Call:  
## lm(formula = df$average\_performance\_across\_all\_9\_testing\_trials\_using\_full\_4\_minutes\_data ~   
## df$proportion\_of\_correct\_first\_choices, na.rm = TRUE)  
##   
## Residuals:  
## Min 1Q Median 3Q Max   
## -0.27548 -0.01241 0.01705 0.04779 0.13740   
##   
## Coefficients:  
## Estimate Std. Error t value  
## (Intercept) 0.44898 0.03664 12.252  
## df$proportion\_of\_correct\_first\_choices 0.01079 0.06662 0.162  
## Pr(>|t|)   
## (Intercept) 7.95e-14 \*\*\*  
## df$proportion\_of\_correct\_first\_choices 0.872   
## ---  
## Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1  
##   
## Residual standard error: 0.09368 on 33 degrees of freedom  
## (1 observation deleted due to missingness)  
## Multiple R-squared: 0.000794, Adjusted R-squared: -0.02949   
## F-statistic: 0.02622 on 1 and 33 DF, p-value: 0.8723



##   
## Call:  
## lm(formula = df$proportion\_of\_correct\_first\_choices ~ df$average\_latency\_to\_enter\_correct\_side,   
## na.rm = TRUE)  
##   
## Residuals:  
## Min 1Q Median 3Q Max   
## -0.47846 -0.04623 0.00280 0.11438 0.64816   
##   
## Coefficients:  
## Estimate Std. Error t value  
## (Intercept) 0.557862 0.067515 8.263  
## df$average\_latency\_to\_enter\_correct\_side -0.001533 0.001338 -1.145  
## Pr(>|t|)   
## (Intercept) 1.53e-09 \*\*\*  
## df$average\_latency\_to\_enter\_correct\_side 0.26   
## ---  
## Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1  
##   
## Residual standard error: 0.2401 on 33 degrees of freedom  
## (1 observation deleted due to missingness)  
## Multiple R-squared: 0.03824, Adjusted R-squared: 0.009092   
## F-statistic: 1.312 on 1 and 33 DF, p-value: 0.2603



##   
## Call:  
## lm(formula = df$proportion\_of\_correct\_first\_choices ~ df$average\_latency\_to\_enter\_correct\_side\_filtered\_just\_correct\_choice,   
## na.rm = TRUE)  
##   
## Residuals:  
## Min 1Q Median 3Q Max   
## -0.47349 -0.05089 0.00660 0.10425 0.66104   
##   
## Coefficients:  
## Estimate  
## (Intercept) 0.557863  
## df$average\_latency\_to\_enter\_correct\_side\_filtered\_just\_correct\_choice -0.001628  
## Std. Error  
## (Intercept) 0.063624  
## df$average\_latency\_to\_enter\_correct\_side\_filtered\_just\_correct\_choice 0.001295  
## t value  
## (Intercept) 8.768  
## df$average\_latency\_to\_enter\_correct\_side\_filtered\_just\_correct\_choice -1.258  
## Pr(>|t|)  
## (Intercept) 3.91e-10  
## df$average\_latency\_to\_enter\_correct\_side\_filtered\_just\_correct\_choice 0.217  
##   
## (Intercept) \*\*\*  
## df$average\_latency\_to\_enter\_correct\_side\_filtered\_just\_correct\_choice   
## ---  
## Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1  
##   
## Residual standard error: 0.2391 on 33 degrees of freedom  
## (1 observation deleted due to missingness)  
## Multiple R-squared: 0.04575, Adjusted R-squared: 0.01684   
## F-statistic: 1.582 on 1 and 33 DF, p-value: 0.2173

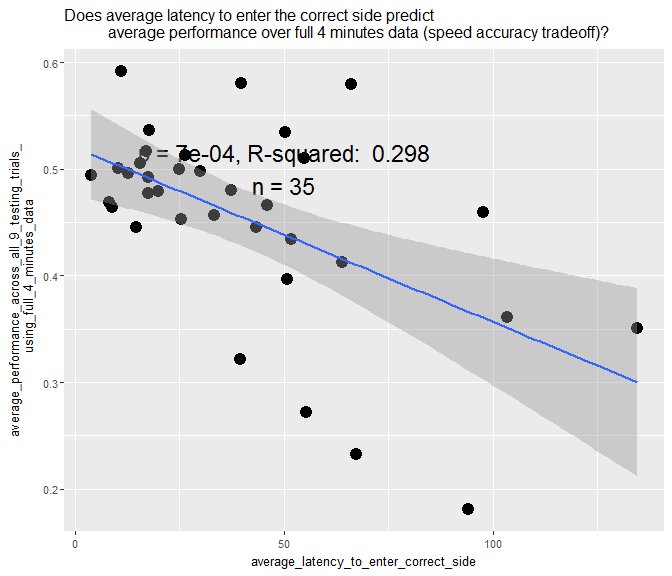


## Warning: In lm.fit(x, y, offset = offset, singular.ok = singular.ok, ...) :  
## extra argument 'na.rm' will be disregarded

##   
## Call:  
## lm(formula = df$average\_performance\_across\_all\_9\_testing\_trials\_using\_full\_4\_minutes\_data ~   
## df$average\_latency\_to\_enter\_correct\_side, na.rm = TRUE)  
##   
## Residuals:  
## Min 1Q Median 3Q Max   
## -0.185566 -0.023047 -0.001003 0.031003 0.167294   
##   
## Coefficients:  
## Estimate Std. Error t value  
## (Intercept) 0.5203476 0.0220889 23.56  
## df$average\_latency\_to\_enter\_correct\_side -0.0016371 0.0004378 -3.74  
## Pr(>|t|)   
## (Intercept) <2e-16 \*\*\*  
## df$average\_latency\_to\_enter\_correct\_side 7e-04 \*\*\*  
## ---  
## Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1  
##   
## Residual standard error: 0.07854 on 33 degrees of freedom  
## (1 observation deleted due to missingness)  
## Multiple R-squared: 0.2976, Adjusted R-squared: 0.2764   
## F-statistic: 13.98 on 1 and 33 DF, p-value: 0.0007001

## Warning: Removed 1 rows containing non-finite values (stat\_smooth).

## Warning: Removed 1 rows containing missing values (geom\_point).

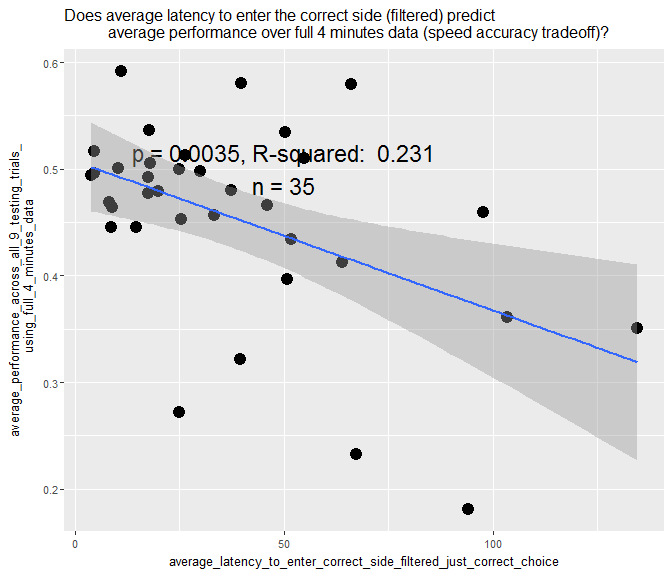


## Warning: In lm.fit(x, y, offset = offset, singular.ok = singular.ok, ...) :  
## extra argument 'na.rm' will be disregarded

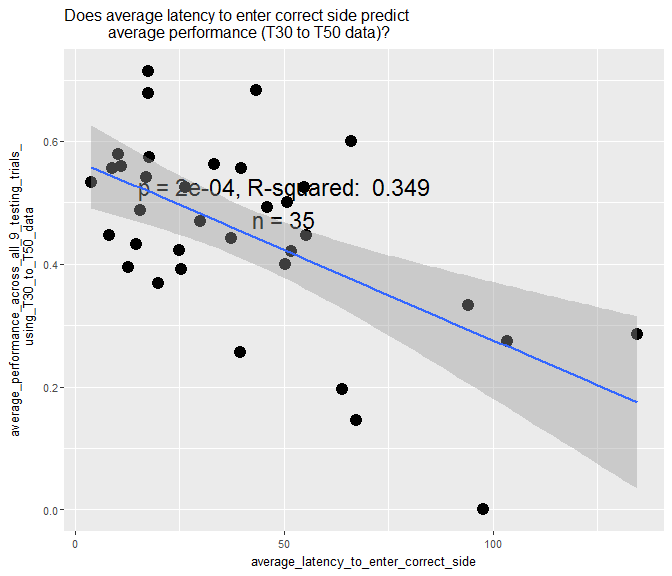
##   
## Call:  
## lm(formula = df$average\_performance\_across\_all\_9\_testing\_trials\_using\_full\_4\_minutes\_data ~   
## df$average\_latency\_to\_enter\_correct\_side\_filtered\_just\_correct\_choice,   
## na.rm = TRUE)  
##   
## Residuals:  
## Min 1Q Median 3Q Max   
## -0.200935 -0.023289 -0.000337 0.031574 0.164581   
##   
## Coefficients:  
## Estimate  
## (Intercept) 0.5075262  
## df$average\_latency\_to\_enter\_correct\_side\_filtered\_just\_correct\_choice -0.0014016  
## Std. Error  
## (Intercept) 0.0218633  
## df$average\_latency\_to\_enter\_correct\_side\_filtered\_just\_correct\_choice 0.0004449  
## t value  
## (Intercept) 23.214  
## df$average\_latency\_to\_enter\_correct\_side\_filtered\_just\_correct\_choice -3.151  
## Pr(>|t|)  
## (Intercept) < 2e-16  
## df$average\_latency\_to\_enter\_correct\_side\_filtered\_just\_correct\_choice 0.00345  
##   
## (Intercept) \*\*\*  
## df$average\_latency\_to\_enter\_correct\_side\_filtered\_just\_correct\_choice \*\*   
## ---  
## Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1  
##   
## Residual standard error: 0.08217 on 33 degrees of freedom  
## (1 observation deleted due to missingness)  
## Multiple R-squared: 0.2312, Adjusted R-squared: 0.2079   
## F-statistic: 9.926 on 1 and 33 DF, p-value: 0.003454

## Warning: Removed 1 rows containing non-finite values (stat\_smooth).

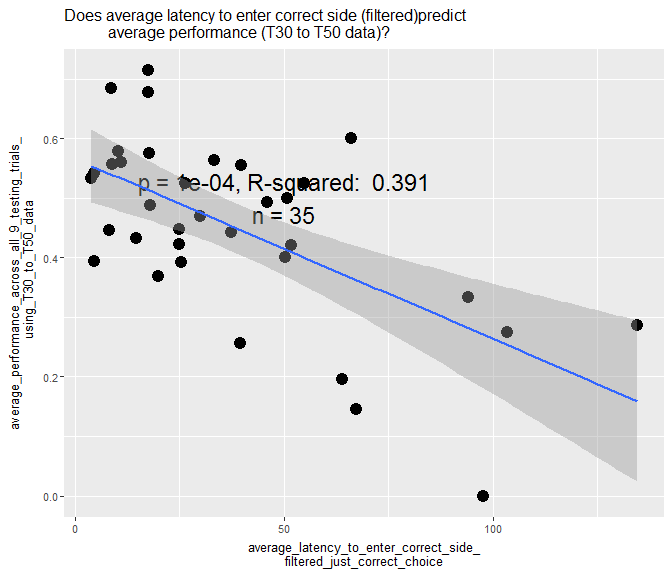
## Warning: Removed 1 rows containing missing values (geom\_point).



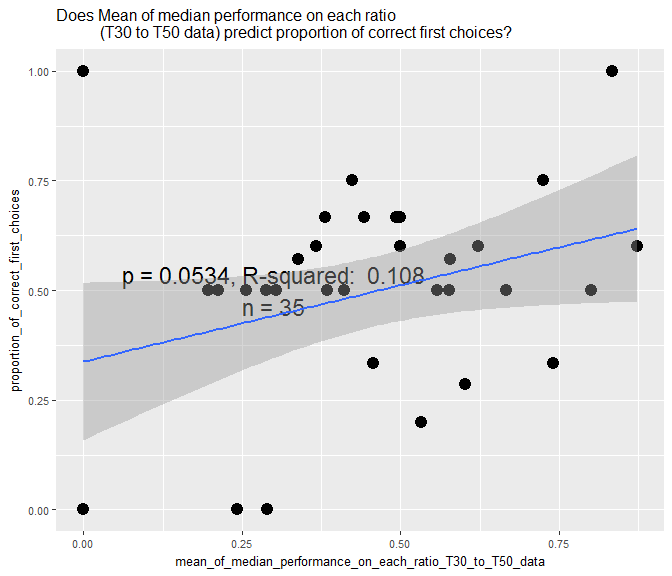
##   
## Call:  
## lm(formula = df$average\_performance\_across\_all\_9\_testing\_trials\_using\_T30\_to\_T50\_data ~   
## df$average\_latency\_to\_enter\_correct\_side, na.rm = TRUE)  
##   
## Residuals:  
## Min 1Q Median 3Q Max   
## -0.28299 -0.08408 0.01256 0.06892 0.24153   
##   
## Coefficients:  
## Estimate Std. Error t value  
## (Intercept) 0.5699116 0.0352871 16.151  
## df$average\_latency\_to\_enter\_correct\_side -0.0029401 0.0006993 -4.204  
## Pr(>|t|)   
## (Intercept) < 2e-16 \*\*\*  
## df$average\_latency\_to\_enter\_correct\_side 0.000188 \*\*\*  
## ---  
## Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1  
##   
## Residual standard error: 0.1255 on 33 degrees of freedom  
## (1 observation deleted due to missingness)  
## Multiple R-squared: 0.3488, Adjusted R-squared: 0.329   
## F-statistic: 17.67 on 1 and 33 DF, p-value: 0.0001879



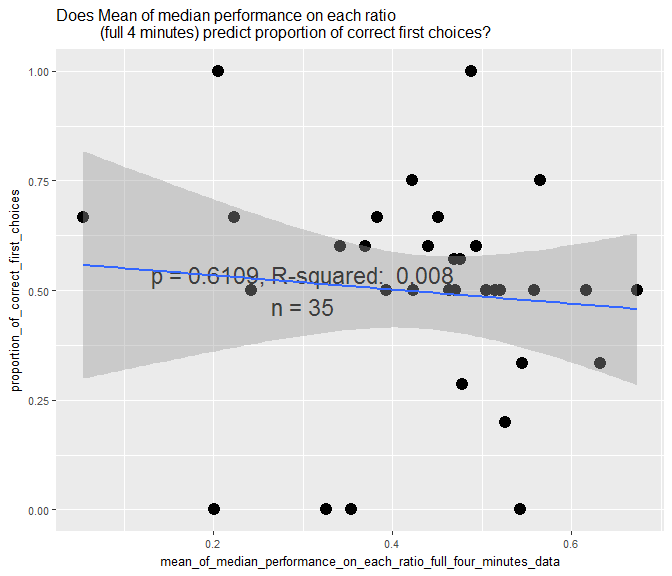
##   
## Call:  
## lm(formula = df$average\_performance\_across\_all\_9\_testing\_trials\_using\_T30\_to\_T50\_data ~   
## df$average\_latency\_to\_enter\_correct\_side\_filtered\_just\_correct\_choice,   
## na.rm = TRUE)  
##   
## Residuals:  
## Min 1Q Median 3Q Max   
## -0.27106 -0.07861 0.01134 0.07676 0.23336   
##   
## Coefficients:  
## Estimate  
## (Intercept) 0.566093  
## df$average\_latency\_to\_enter\_correct\_side\_filtered\_just\_correct\_choice -0.003023  
## Std. Error  
## (Intercept) 0.032287  
## df$average\_latency\_to\_enter\_correct\_side\_filtered\_just\_correct\_choice 0.000657  
## t value  
## (Intercept) 17.533  
## df$average\_latency\_to\_enter\_correct\_side\_filtered\_just\_correct\_choice -4.602  
## Pr(>|t|)  
## (Intercept) < 2e-16  
## df$average\_latency\_to\_enter\_correct\_side\_filtered\_just\_correct\_choice 5.93e-05  
##   
## (Intercept) \*\*\*  
## df$average\_latency\_to\_enter\_correct\_side\_filtered\_just\_correct\_choice \*\*\*  
## ---  
## Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1  
##   
## Residual standard error: 0.1213 on 33 degrees of freedom  
## (1 observation deleted due to missingness)  
## Multiple R-squared: 0.3909, Adjusted R-squared: 0.3724   
## F-statistic: 21.18 on 1 and 33 DF, p-value: 5.932e-05



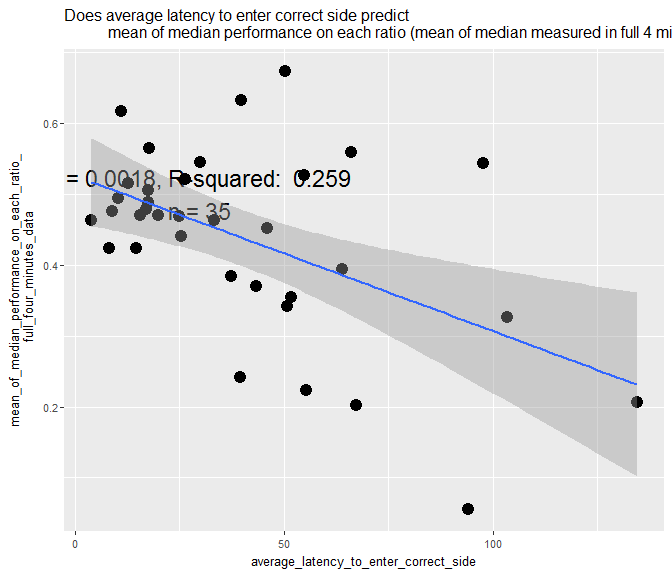
##   
## Call:  
## lm(formula = df$proportion\_of\_correct\_first\_choices ~ df$mean\_of\_median\_performance\_on\_each\_ratio\_T30\_to\_T50\_data,   
## na.rm = TRUE)  
##   
## Residuals:  
## Min 1Q Median 3Q Max   
## -0.43865 -0.09294 0.03245 0.12522 0.66224   
##   
## Coefficients:  
## Estimate  
## (Intercept) 0.33776  
## df$mean\_of\_median\_performance\_on\_each\_ratio\_T30\_to\_T50\_data 0.34790  
## Std. Error  
## (Intercept) 0.08814  
## df$mean\_of\_median\_performance\_on\_each\_ratio\_T30\_to\_T50\_data 0.17365  
## t value  
## (Intercept) 3.832  
## df$mean\_of\_median\_performance\_on\_each\_ratio\_T30\_to\_T50\_data 2.003  
## Pr(>|t|)   
## (Intercept) 0.00054 \*\*\*  
## df$mean\_of\_median\_performance\_on\_each\_ratio\_T30\_to\_T50\_data 0.05339 .   
## ---  
## Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1  
##   
## Residual standard error: 0.2311 on 33 degrees of freedom  
## (1 observation deleted due to missingness)  
## Multiple R-squared: 0.1084, Adjusted R-squared: 0.08143   
## F-statistic: 4.014 on 1 and 33 DF, p-value: 0.05339



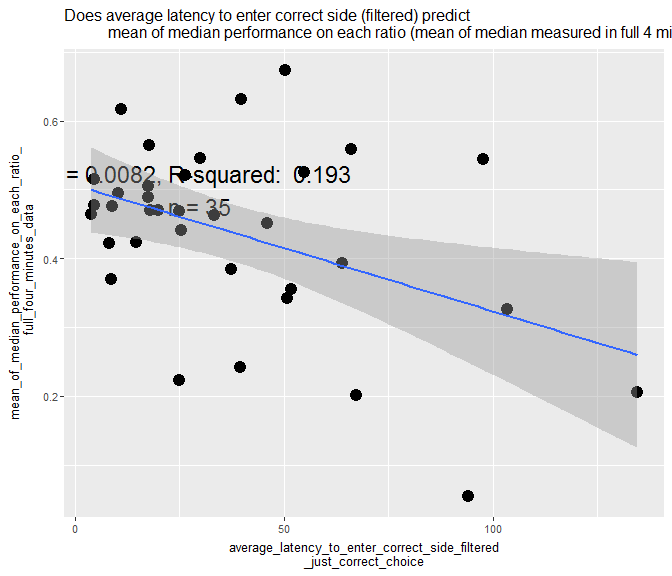
##   
## Call:  
## lm(formula = df$proportion\_of\_correct\_first\_choices ~ df$mean\_of\_median\_performance\_on\_each\_ratio\_full\_four\_minutes\_data,   
## na.rm = TRUE)  
##   
## Residuals:  
## Min 1Q Median 3Q Max   
## -0.53432 -0.01548 0.01752 0.10652 0.51225   
##   
## Coefficients:  
## Estimate  
## (Intercept) 0.5670  
## df$mean\_of\_median\_performance\_on\_each\_ratio\_full\_four\_minutes\_data -0.1622  
## Std. Error  
## (Intercept) 0.1441  
## df$mean\_of\_median\_performance\_on\_each\_ratio\_full\_four\_minutes\_data 0.3158  
## t value  
## (Intercept) 3.934  
## df$mean\_of\_median\_performance\_on\_each\_ratio\_full\_four\_minutes\_data -0.514  
## Pr(>|t|)  
## (Intercept) 0.000406  
## df$mean\_of\_median\_performance\_on\_each\_ratio\_full\_four\_minutes\_data 0.610915  
##   
## (Intercept) \*\*\*  
## df$mean\_of\_median\_performance\_on\_each\_ratio\_full\_four\_minutes\_data   
## ---  
## Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1  
##   
## Residual standard error: 0.2438 on 33 degrees of freedom  
## (1 observation deleted due to missingness)  
## Multiple R-squared: 0.007932, Adjusted R-squared: -0.02213   
## F-statistic: 0.2638 on 1 and 33 DF, p-value: 0.6109



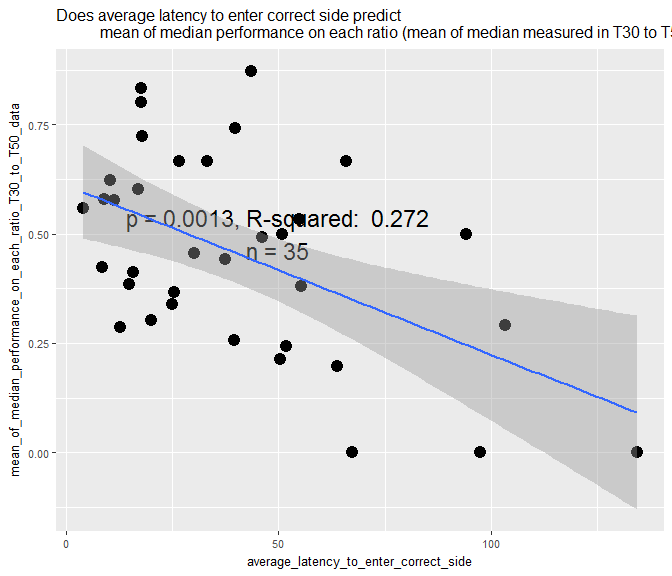
##   
## Call:  
## lm(formula = df$mean\_of\_median\_performance\_on\_each\_ratio\_full\_four\_minutes\_data ~   
## df$average\_latency\_to\_enter\_correct\_side, na.rm = TRUE)  
##   
## Residuals:  
## Min 1Q Median 3Q Max   
## -0.264526 -0.058856 -0.008952 0.039872 0.257622   
##   
## Coefficients:  
## Estimate Std. Error t value  
## (Intercept) 0.5257706 0.0325337 16.161  
## df$average\_latency\_to\_enter\_correct\_side -0.0021911 0.0006448 -3.398  
## Pr(>|t|)   
## (Intercept) < 2e-16 \*\*\*  
## df$average\_latency\_to\_enter\_correct\_side 0.00179 \*\*   
## ---  
## Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1  
##   
## Residual standard error: 0.1157 on 33 degrees of freedom  
## (1 observation deleted due to missingness)  
## Multiple R-squared: 0.2592, Adjusted R-squared: 0.2368   
## F-statistic: 11.55 on 1 and 33 DF, p-value: 0.001786



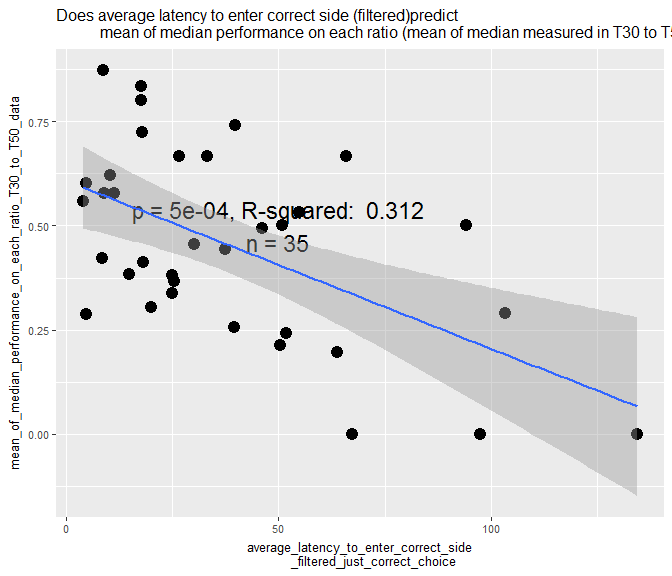
##   
## Call:  
## lm(formula = df$mean\_of\_median\_performance\_on\_each\_ratio\_full\_four\_minutes\_data ~   
## df$average\_latency\_to\_enter\_correct\_side\_filtered\_just\_correct\_choice,   
## na.rm = TRUE)  
##   
## Residuals:  
## Min 1Q Median 3Q Max   
## -0.279122 -0.055387 0.003381 0.046491 0.258473   
##   
## Coefficients:  
## Estimate  
## (Intercept) 0.5071969  
## df$average\_latency\_to\_enter\_correct\_side\_filtered\_just\_correct\_choice -0.0018387  
## Std. Error  
## (Intercept) 0.0321162  
## df$average\_latency\_to\_enter\_correct\_side\_filtered\_just\_correct\_choice 0.0006535  
## t value  
## (Intercept) 15.793  
## df$average\_latency\_to\_enter\_correct\_side\_filtered\_just\_correct\_choice -2.814  
## Pr(>|t|)  
## (Intercept) < 2e-16  
## df$average\_latency\_to\_enter\_correct\_side\_filtered\_just\_correct\_choice 0.00819  
##   
## (Intercept) \*\*\*  
## df$average\_latency\_to\_enter\_correct\_side\_filtered\_just\_correct\_choice \*\*   
## ---  
## Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1  
##   
## Residual standard error: 0.1207 on 33 degrees of freedom  
## (1 observation deleted due to missingness)  
## Multiple R-squared: 0.1935, Adjusted R-squared: 0.169   
## F-statistic: 7.917 on 1 and 33 DF, p-value: 0.00819



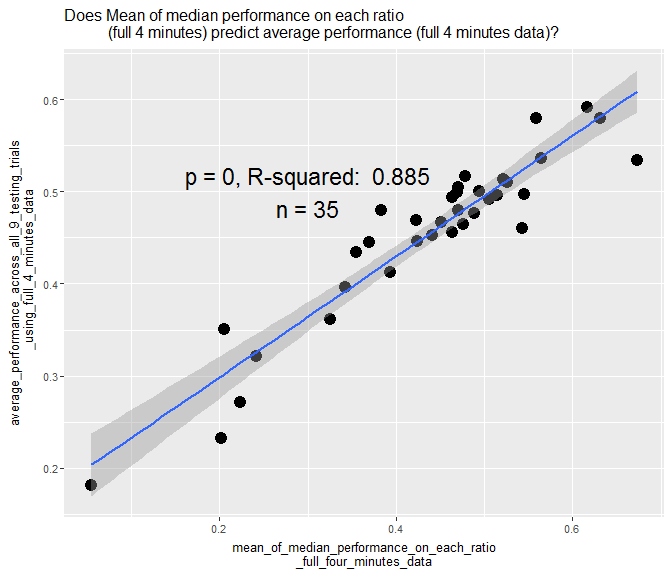
##   
## Call:  
## lm(formula = df$mean\_of\_median\_performance\_on\_each\_ratio\_T30\_to\_T50\_data ~   
## df$average\_latency\_to\_enter\_correct\_side, na.rm = TRUE)  
##   
## Residuals:  
## Min 1Q Median 3Q Max   
## -0.35080 -0.16815 -0.01597 0.14574 0.42929   
##   
## Coefficients:  
## Estimate Std. Error t value  
## (Intercept) 0.610899 0.055617 10.984  
## df$average\_latency\_to\_enter\_correct\_side -0.003866 0.001102 -3.507  
## Pr(>|t|)   
## (Intercept) 1.47e-12 \*\*\*  
## df$average\_latency\_to\_enter\_correct\_side 0.00133 \*\*   
## ---  
## Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1  
##   
## Residual standard error: 0.1977 on 33 degrees of freedom  
## (1 observation deleted due to missingness)  
## Multiple R-squared: 0.2716, Adjusted R-squared: 0.2495   
## F-statistic: 12.3 on 1 and 33 DF, p-value: 0.001328



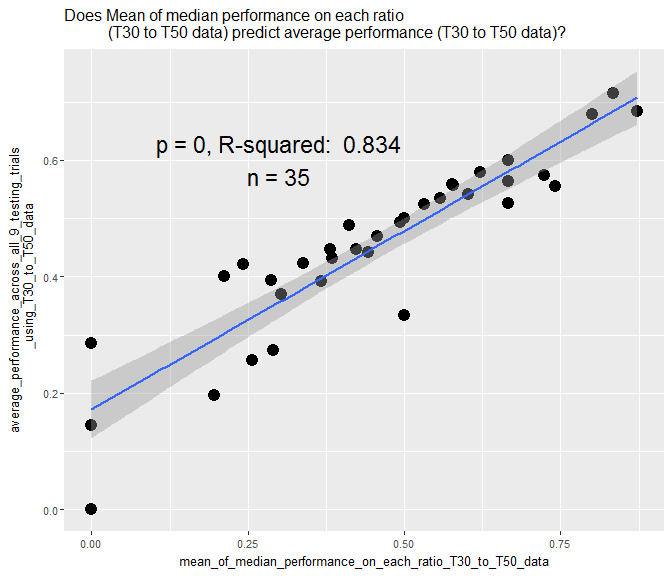
##   
## Call:  
## lm(formula = df$mean\_of\_median\_performance\_on\_each\_ratio\_T30\_to\_T50\_data ~   
## df$average\_latency\_to\_enter\_correct\_side\_filtered\_just\_correct\_choice,   
## na.rm = TRUE)  
##   
## Residuals:  
## Min 1Q Median 3Q Max   
## -0.33703 -0.15586 -0.01459 0.15533 0.32439   
##   
## Coefficients:  
## Estimate  
## (Intercept) 0.607680  
## df$average\_latency\_to\_enter\_correct\_side\_filtered\_just\_correct\_choice -0.004023  
## Std. Error  
## (Intercept) 0.051149  
## df$average\_latency\_to\_enter\_correct\_side\_filtered\_just\_correct\_choice 0.001041  
## t value  
## (Intercept) 11.880  
## df$average\_latency\_to\_enter\_correct\_side\_filtered\_just\_correct\_choice -3.865  
## Pr(>|t|)  
## (Intercept) 1.83e-13  
## df$average\_latency\_to\_enter\_correct\_side\_filtered\_just\_correct\_choice 0.000492  
##   
## (Intercept) \*\*\*  
## df$average\_latency\_to\_enter\_correct\_side\_filtered\_just\_correct\_choice \*\*\*  
## ---  
## Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1  
##   
## Residual standard error: 0.1922 on 33 degrees of freedom  
## (1 observation deleted due to missingness)  
## Multiple R-squared: 0.3117, Adjusted R-squared: 0.2908   
## F-statistic: 14.94 on 1 and 33 DF, p-value: 0.0004922

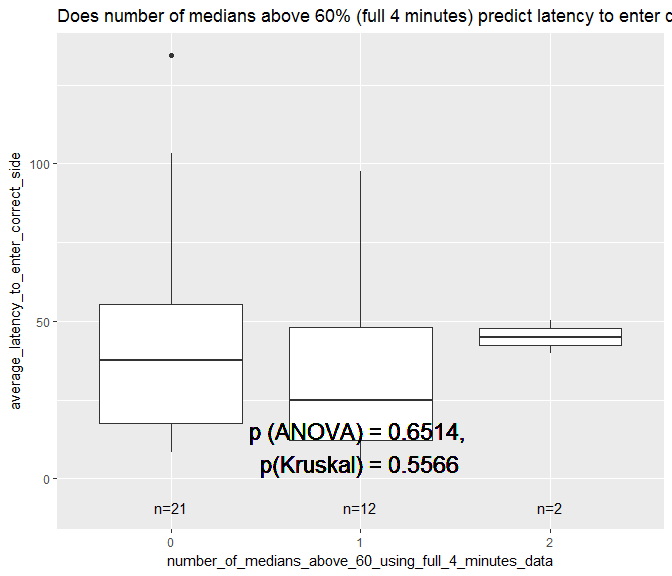


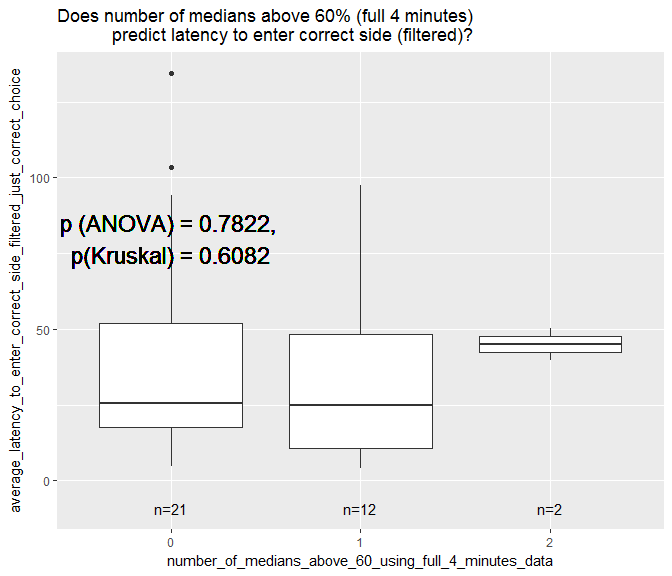
##   
## Call:  
## lm(formula = df$average\_performance\_across\_all\_9\_testing\_trials\_using\_full\_4\_minutes\_data ~   
## df$mean\_of\_median\_performance\_on\_each\_ratio\_full\_four\_minutes\_data,   
## na.rm = TRUE)  
##   
## Residuals:  
## Min 1Q Median 3Q Max   
## -0.074462 -0.013821 -0.001913 0.023019 0.060770   
##   
## Coefficients:  
## Estimate  
## (Intercept) 0.16746  
## df$mean\_of\_median\_performance\_on\_each\_ratio\_full\_four\_minutes\_data 0.65585  
## Std. Error  
## (Intercept) 0.01881  
## df$mean\_of\_median\_performance\_on\_each\_ratio\_full\_four\_minutes\_data 0.04121  
## t value  
## (Intercept) 8.901  
## df$mean\_of\_median\_performance\_on\_each\_ratio\_full\_four\_minutes\_data 15.913  
## Pr(>|t|)  
## (Intercept) 2.74e-10  
## df$mean\_of\_median\_performance\_on\_each\_ratio\_full\_four\_minutes\_data < 2e-16  
##   
## (Intercept) \*\*\*  
## df$mean\_of\_median\_performance\_on\_each\_ratio\_full\_four\_minutes\_data \*\*\*  
## ---  
## Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1  
##   
## Residual standard error: 0.03182 on 33 degrees of freedom  
## (1 observation deleted due to missingness)  
## Multiple R-squared: 0.8847, Adjusted R-squared: 0.8812   
## F-statistic: 253.2 on 1 and 33 DF, p-value: < 2.2e-16

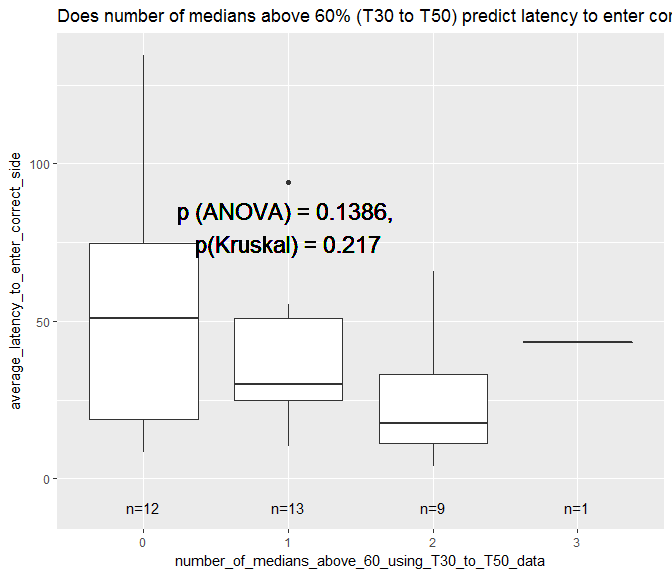


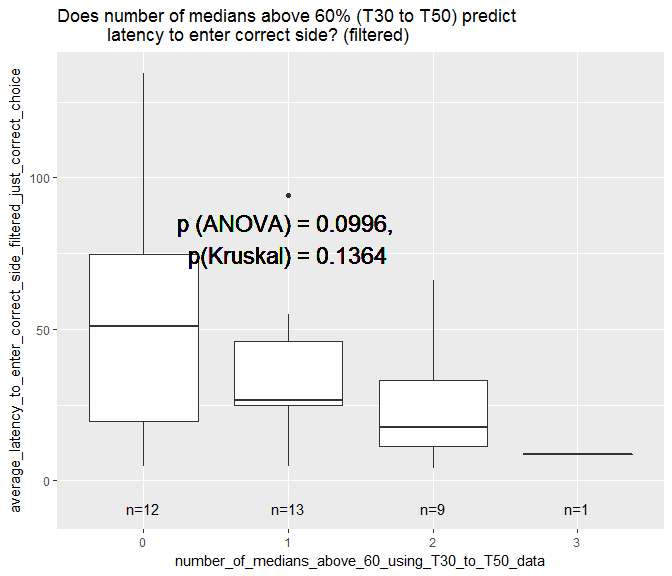
##   
## Call:  
## lm(formula = df$average\_performance\_across\_all\_9\_testing\_trials\_using\_T30\_to\_T50\_data ~   
## df$mean\_of\_median\_performance\_on\_each\_ratio\_T30\_to\_T50\_data,   
## na.rm = TRUE)  
##   
## Residuals:  
## Min 1Q Median 3Q Max   
## -0.17247 -0.02551 0.01794 0.03016 0.11325   
##   
## Coefficients:  
## Estimate  
## (Intercept) 0.17247  
## df$mean\_of\_median\_performance\_on\_each\_ratio\_T30\_to\_T50\_data 0.61294  
## Std. Error  
## (Intercept) 0.02413  
## df$mean\_of\_median\_performance\_on\_each\_ratio\_T30\_to\_T50\_data 0.04754  
## t value  
## (Intercept) 7.147  
## df$mean\_of\_median\_performance\_on\_each\_ratio\_T30\_to\_T50\_data 12.892  
## Pr(>|t|)   
## (Intercept) 3.45e-08 \*\*\*  
## df$mean\_of\_median\_performance\_on\_each\_ratio\_T30\_to\_T50\_data 1.96e-14 \*\*\*  
## ---  
## Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1  
##   
## Residual standard error: 0.06328 on 33 degrees of freedom  
## (1 observation deleted due to missingness)  
## Multiple R-squared: 0.8343, Adjusted R-squared: 0.8293   
## F-statistic: 166.2 on 1 and 33 DF, p-value: 1.964e-14

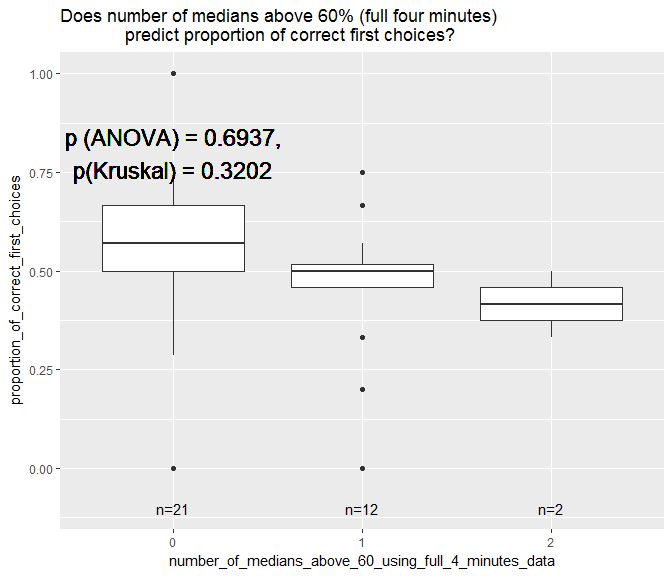


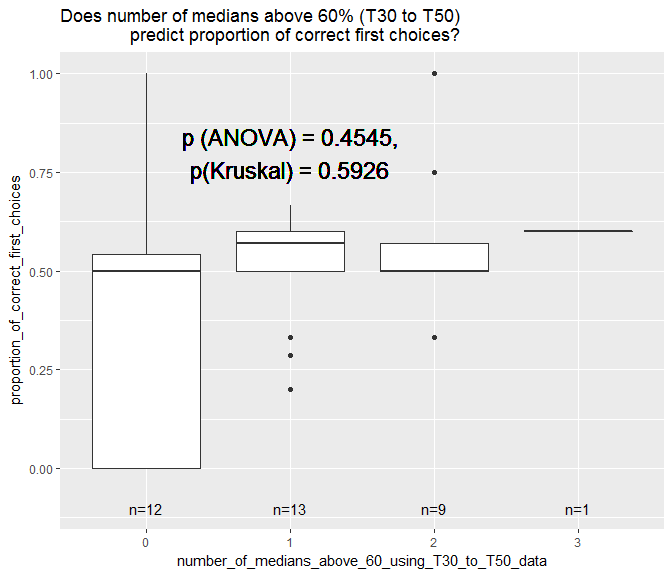










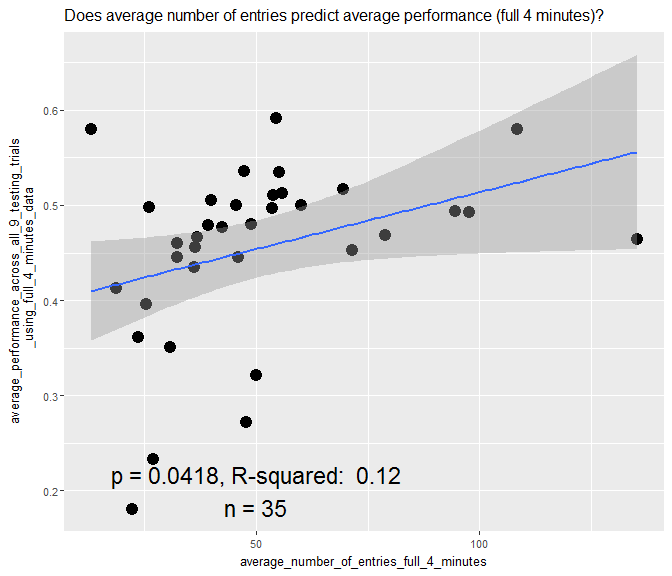


## Warning: In lm.fit(x, y, offset = offset, singular.ok = singular.ok, ...) :  
## extra argument 'na.rm' will be disregarded

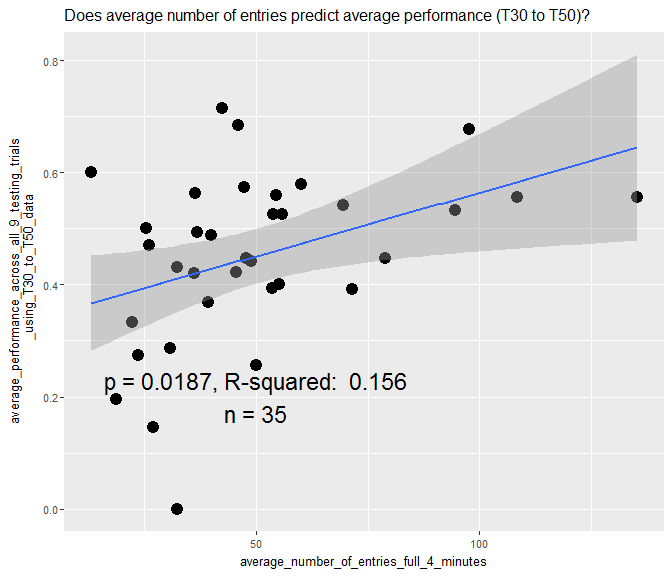
##   
## Call:  
## lm(formula = df$average\_performance\_across\_all\_9\_testing\_trials\_using\_full\_4\_minutes\_data ~   
## df$average\_number\_of\_entries\_full\_4\_minutes, na.rm = TRUE)  
##   
## Residuals:  
## Min 1Q Median 3Q Max   
## -0.24023 -0.02368 0.02684 0.05128 0.16961   
##   
## Coefficients:  
## Estimate Std. Error t value  
## (Intercept) 0.3943543 0.0319830 12.330  
## df$average\_number\_of\_entries\_full\_4\_minutes 0.0011954 0.0005645 2.118  
## Pr(>|t|)   
## (Intercept) 6.69e-14 \*\*\*  
## df$average\_number\_of\_entries\_full\_4\_minutes 0.0418 \*   
## ---  
## Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1  
##   
## Residual standard error: 0.08793 on 33 degrees of freedom  
## (1 observation deleted due to missingness)  
## Multiple R-squared: 0.1196, Adjusted R-squared: 0.09296   
## F-statistic: 4.485 on 1 and 33 DF, p-value: 0.04182

## Warning: Removed 1 rows containing non-finite values (stat\_smooth).

## Warning: Removed 1 rows containing missing values (geom\_point).

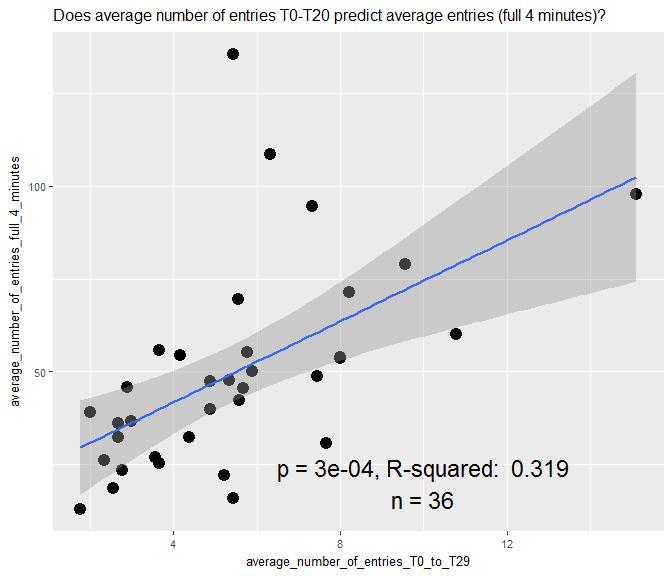


##   
## Call:  
## lm(formula = df$average\_performance\_across\_all\_9\_testing\_trials\_using\_T30\_to\_T50\_data ~   
## df$average\_number\_of\_entries\_full\_4\_minutes, na.rm = TRUE)  
##   
## Residuals:  
## Min 1Q Median 3Q Max   
## -0.41089 -0.06742 0.00134 0.08568 0.28082   
##   
## Coefficients:  
## Estimate Std. Error t value  
## (Intercept) 0.3375616 0.0519404 6.499  
## df$average\_number\_of\_entries\_full\_4\_minutes 0.0022679 0.0009167 2.474  
## Pr(>|t|)   
## (Intercept) 2.24e-07 \*\*\*  
## df$average\_number\_of\_entries\_full\_4\_minutes 0.0187 \*   
## ---  
## Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1  
##   
## Residual standard error: 0.1428 on 33 degrees of freedom  
## (1 observation deleted due to missingness)  
## Multiple R-squared: 0.1565, Adjusted R-squared: 0.1309   
## F-statistic: 6.121 on 1 and 33 DF, p-value: 0.01868



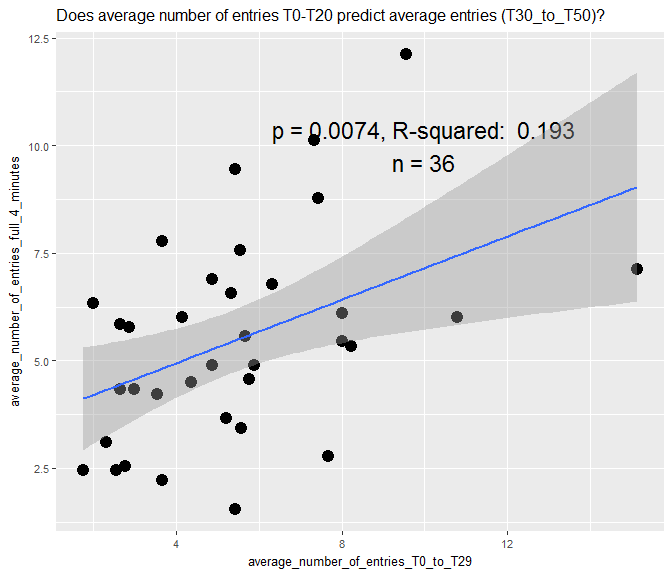
## Warning: In lm.fit(x, y, offset = offset, singular.ok = singular.ok, ...) :  
## extra argument 'na.rm' will be disregarded

##   
## Call:  
## lm(formula = df$average\_number\_of\_entries\_full\_4\_minutes ~ df$average\_number\_of\_entries\_T0\_to\_T29,   
## na.rm = TRUE)  
##   
## Residuals:  
## Min 1Q Median 3Q Max   
## -33.691 -11.656 -3.406 6.688 85.642   
##   
## Coefficients:  
## Estimate Std. Error t value  
## (Intercept) 20.021 8.233 2.432  
## df$average\_number\_of\_entries\_T0\_to\_T29 5.450 1.367 3.987  
## Pr(>|t|)   
## (Intercept) 0.020448 \*   
## df$average\_number\_of\_entries\_T0\_to\_T29 0.000337 \*\*\*  
## ---  
## Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1  
##   
## Residual standard error: 22.56 on 34 degrees of freedom  
## Multiple R-squared: 0.3185, Adjusted R-squared: 0.2985   
## F-statistic: 15.89 on 1 and 34 DF, p-value: 0.0003365



## Warning: In lm.fit(x, y, offset = offset, singular.ok = singular.ok, ...) :  
## extra argument 'na.rm' will be disregarded

##   
## Call:  
## lm(formula = df$average\_number\_of\_entries\_T30\_to\_T50 ~ df$average\_number\_of\_entries\_T0\_to\_T29,   
## na.rm = TRUE)  
##   
## Residuals:  
## Min 1Q Median 3Q Max   
## -3.9142 -1.4966 -0.3388 1.2857 5.1241   
##   
## Coefficients:  
## Estimate Std. Error t value  
## (Intercept) 3.4602 0.7798 4.437  
## df$average\_number\_of\_entries\_T0\_to\_T29 0.3691 0.1295 2.851  
## Pr(>|t|)   
## (Intercept) 9.1e-05 \*\*\*  
## df$average\_number\_of\_entries\_T0\_to\_T29 0.00736 \*\*   
## ---  
## Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1  
##   
## Residual standard error: 2.137 on 34 degrees of freedom  
## Multiple R-squared: 0.1929, Adjusted R-squared: 0.1692   
## F-statistic: 8.127 on 1 and 34 DF, p-value: 0.007363

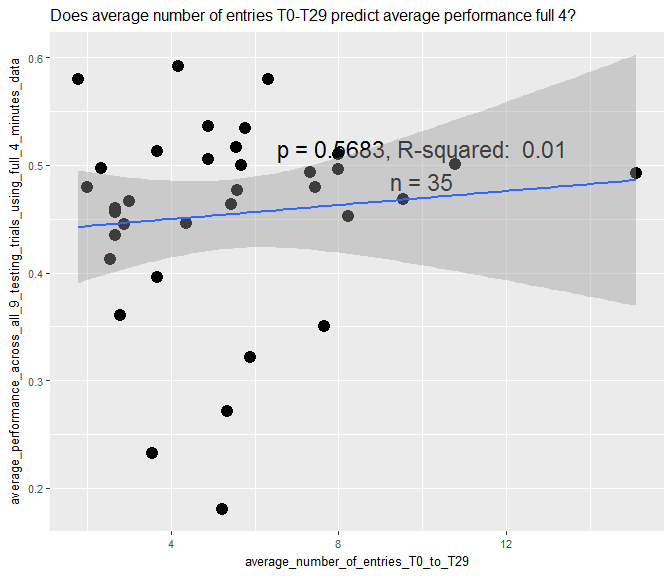


## Warning: In lm.fit(x, y, offset = offset, singular.ok = singular.ok, ...) :  
## extra argument 'na.rm' will be disregarded

##   
## Call:  
## lm(formula = df$average\_performance\_across\_all\_9\_testing\_trials\_using\_full\_4\_minutes\_data ~   
## df$average\_number\_of\_entries\_T0\_to\_T29, na.rm = TRUE)  
##   
## Residuals:  
## Min 1Q Median 3Q Max   
## -0.27320 -0.01100 0.01875 0.04982 0.14132   
##   
## Coefficients:  
## Estimate Std. Error t value  
## (Intercept) 0.436889 0.034116 12.806  
## df$average\_number\_of\_entries\_T0\_to\_T29 0.003256 0.005649 0.576  
## Pr(>|t|)   
## (Intercept) 2.36e-14 \*\*\*  
## df$average\_number\_of\_entries\_T0\_to\_T29 0.568   
## ---  
## Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1  
##   
## Residual standard error: 0.09325 on 33 degrees of freedom  
## (1 observation deleted due to missingness)  
## Multiple R-squared: 0.009967, Adjusted R-squared: -0.02003   
## F-statistic: 0.3322 on 1 and 33 DF, p-value: 0.5683

## Warning: Removed 1 rows containing non-finite values (stat\_smooth).

## Warning: Removed 1 rows containing missing values (geom\_point).

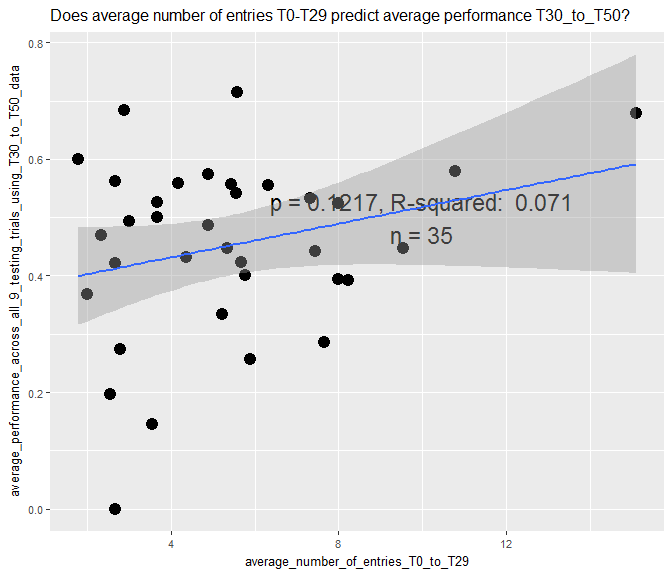


## Warning: In lm.fit(x, y, offset = offset, singular.ok = singular.ok, ...) :  
## extra argument 'na.rm' will be disregarded

##   
## Call:  
## lm(formula = df$average\_performance\_across\_all\_9\_testing\_trials\_using\_T30\_to\_T50\_data ~   
## df$average\_number\_of\_entries\_T0\_to\_T29, na.rm = TRUE)  
##   
## Residuals:  
## Min 1Q Median 3Q Max   
## -0.41256 -0.08012 0.03542 0.08859 0.26796   
##   
## Coefficients:  
## Estimate Std. Error t value  
## (Intercept) 0.374097 0.054826 6.823  
## df$average\_number\_of\_entries\_T0\_to\_T29 0.014423 0.009079 1.589  
## Pr(>|t|)   
## (Intercept) 8.74e-08 \*\*\*  
## df$average\_number\_of\_entries\_T0\_to\_T29 0.122   
## ---  
## Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1  
##   
## Residual standard error: 0.1499 on 33 degrees of freedom  
## (1 observation deleted due to missingness)  
## Multiple R-squared: 0.07104, Adjusted R-squared: 0.04289   
## F-statistic: 2.524 on 1 and 33 DF, p-value: 0.1217

## Warning: Removed 1 rows containing non-finite values (stat\_smooth).

## Warning: Removed 1 rows containing missing values (geom\_point).

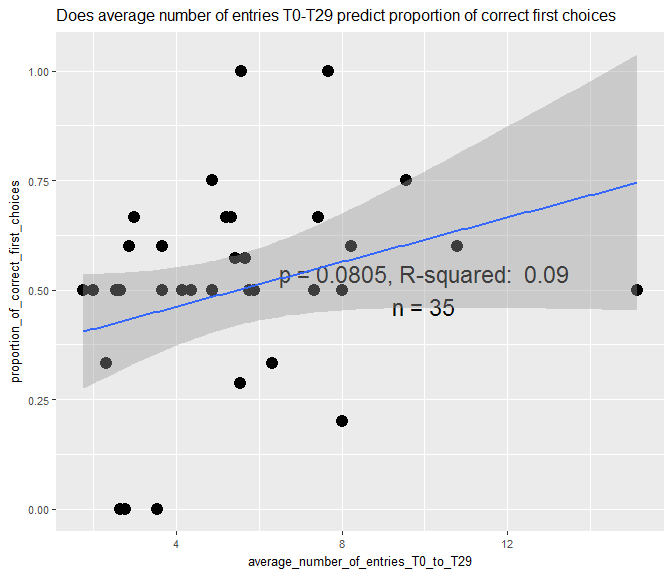


## Warning: In lm.fit(x, y, offset = offset, singular.ok = singular.ok, ...) :  
## extra argument 'na.rm' will be disregarded

##   
## Call:  
## lm(formula = df$proportion\_of\_correct\_first\_choices ~ df$average\_number\_of\_entries\_T0\_to\_T29,   
## na.rm = TRUE)  
##   
## Residuals:  
## Min 1Q Median 3Q Max   
## -0.45013 -0.07457 0.03428 0.13205 0.49844   
##   
## Coefficients:  
## Estimate Std. Error t value  
## (Intercept) 0.35941 0.08545 4.206  
## df$average\_number\_of\_entries\_T0\_to\_T29 0.02551 0.01415 1.803  
## Pr(>|t|)   
## (Intercept) 0.000187 \*\*\*  
## df$average\_number\_of\_entries\_T0\_to\_T29 0.080495 .   
## ---  
## Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1  
##   
## Residual standard error: 0.2335 on 33 degrees of freedom  
## (1 observation deleted due to missingness)  
## Multiple R-squared: 0.08969, Adjusted R-squared: 0.06211   
## F-statistic: 3.252 on 1 and 33 DF, p-value: 0.08049

## Warning: Removed 1 rows containing non-finite values (stat\_smooth).

## Warning: Removed 1 rows containing missing values (geom\_point).

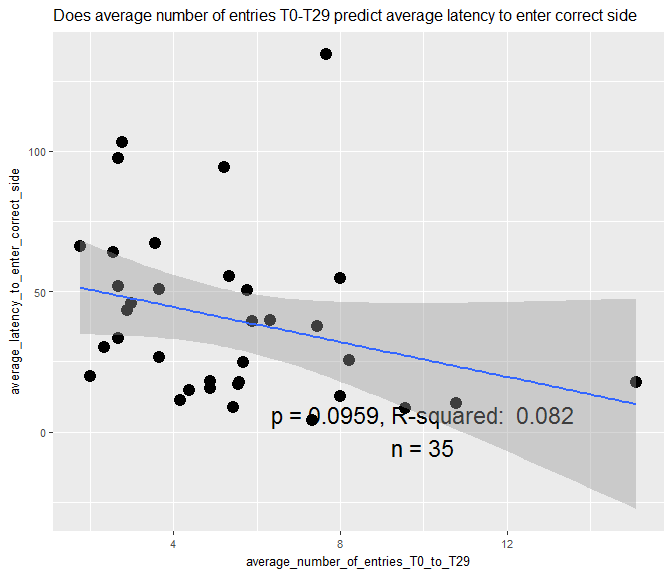


## Warning: In lm.fit(x, y, offset = offset, singular.ok = singular.ok, ...) :  
## extra argument 'na.rm' will be disregarded

##   
## Call:  
## lm(formula = df$average\_latency\_to\_enter\_correct\_side ~ df$average\_number\_of\_entries\_T0\_to\_T29,   
## na.rm = TRUE)  
##   
## Residuals:  
## Min 1Q Median 3Q Max   
## -32.830 -20.877 -4.552 12.900 101.280   
##   
## Coefficients:  
## Estimate Std. Error t value  
## (Intercept) 56.972 10.949 5.203  
## df$average\_number\_of\_entries\_T0\_to\_T29 -3.108 1.813 -1.714  
## Pr(>|t|)   
## (Intercept) 1.01e-05 \*\*\*  
## df$average\_number\_of\_entries\_T0\_to\_T29 0.0959 .   
## ---  
## Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1  
##   
## Residual standard error: 29.93 on 33 degrees of freedom  
## (1 observation deleted due to missingness)  
## Multiple R-squared: 0.08175, Adjusted R-squared: 0.05393   
## F-statistic: 2.938 on 1 and 33 DF, p-value: 0.09589

## Warning: Removed 1 rows containing non-finite values (stat\_smooth).

## Warning: Removed 1 rows containing missing values (geom\_point).

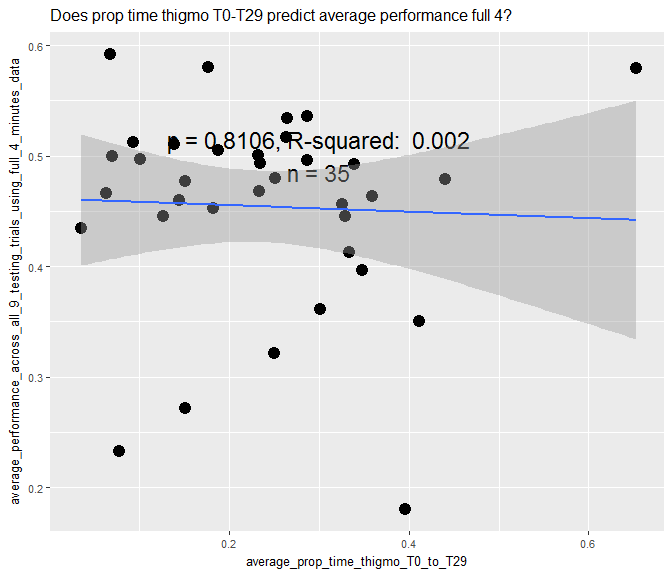


## Warning: In lm.fit(x, y, offset = offset, singular.ok = singular.ok, ...) :  
## extra argument 'na.rm' will be disregarded

##   
## Call:  
## lm(formula = df$average\_performance\_across\_all\_9\_testing\_trials\_using\_full\_4\_minutes\_data ~   
## df$average\_prop\_time\_thigmo\_T0\_to\_T29, na.rm = TRUE)  
##   
## Residuals:  
## Min 1Q Median 3Q Max   
## -0.26896 -0.01882 0.01995 0.04757 0.13755   
##   
## Coefficients:  
## Estimate Std. Error t value Pr(>|t|)  
## (Intercept) 0.46131 0.03294 14.004 1.93e-15  
## df$average\_prop\_time\_thigmo\_T0\_to\_T29 -0.02942 0.12179 -0.242 0.811  
##   
## (Intercept) \*\*\*  
## df$average\_prop\_time\_thigmo\_T0\_to\_T29   
## ---  
## Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1  
##   
## Residual standard error: 0.09363 on 33 degrees of freedom  
## (1 observation deleted due to missingness)  
## Multiple R-squared: 0.001765, Adjusted R-squared: -0.02848   
## F-statistic: 0.05835 on 1 and 33 DF, p-value: 0.8106

## Warning: Removed 1 rows containing non-finite values (stat\_smooth).

## Warning: Removed 1 rows containing missing values (geom\_point).

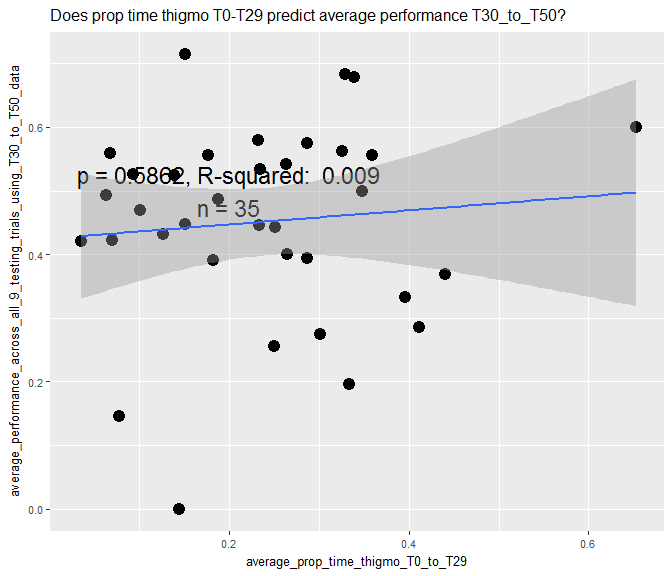


## Warning: In lm.fit(x, y, offset = offset, singular.ok = singular.ok, ...) :  
## extra argument 'na.rm' will be disregarded

##   
## Call:  
## lm(formula = df$average\_performance\_across\_all\_9\_testing\_trials\_using\_T30\_to\_T50\_data ~   
## df$average\_prop\_time\_thigmo\_T0\_to\_T29, na.rm = TRUE)  
##   
## Residuals:  
## Min 1Q Median 3Q Max   
## -0.44109 -0.05830 0.03375 0.09656 0.27249   
##   
## Coefficients:  
## Estimate Std. Error t value Pr(>|t|)  
## (Intercept) 0.42509 0.05445 7.807 5.37e-09  
## df$average\_prop\_time\_thigmo\_T0\_to\_T29 0.11068 0.20132 0.550 0.586  
##   
## (Intercept) \*\*\*  
## df$average\_prop\_time\_thigmo\_T0\_to\_T29   
## ---  
## Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1  
##   
## Residual standard error: 0.1548 on 33 degrees of freedom  
## (1 observation deleted due to missingness)  
## Multiple R-squared: 0.009076, Adjusted R-squared: -0.02095   
## F-statistic: 0.3023 on 1 and 33 DF, p-value: 0.5862

## Warning: Removed 1 rows containing non-finite values (stat\_smooth).

## Warning: Removed 1 rows containing missing values (geom\_point).

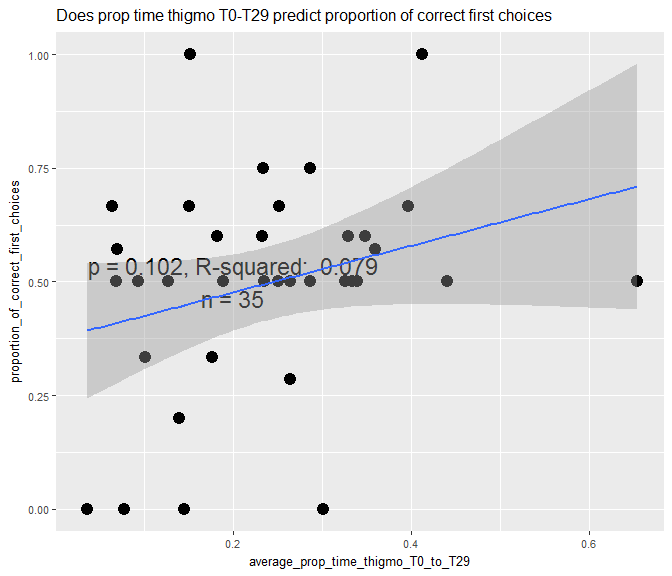


## Warning: In lm.fit(x, y, offset = offset, singular.ok = singular.ok, ...) :  
## extra argument 'na.rm' will be disregarded

##   
## Call:  
## lm(formula = df$proportion\_of\_correct\_first\_choices ~ df$average\_prop\_time\_thigmo\_T0\_to\_T29,   
## na.rm = TRUE)  
##   
## Residuals:  
## Min 1Q Median 3Q Max   
## -0.52871 -0.09635 0.01246 0.11950 0.54828   
##   
## Coefficients:  
## Estimate Std. Error t value Pr(>|t|)  
## (Intercept) 0.37413 0.08265 4.527 7.39e-05  
## df$average\_prop\_time\_thigmo\_T0\_to\_T29 0.51398 0.30557 1.682 0.102  
##   
## (Intercept) \*\*\*  
## df$average\_prop\_time\_thigmo\_T0\_to\_T29   
## ---  
## Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1  
##   
## Residual standard error: 0.2349 on 33 degrees of freedom  
## (1 observation deleted due to missingness)  
## Multiple R-squared: 0.07896, Adjusted R-squared: 0.05105   
## F-statistic: 2.829 on 1 and 33 DF, p-value: 0.102

## Warning: Removed 1 rows containing non-finite values (stat\_smooth).

## Warning: Removed 1 rows containing missing values (geom\_point).

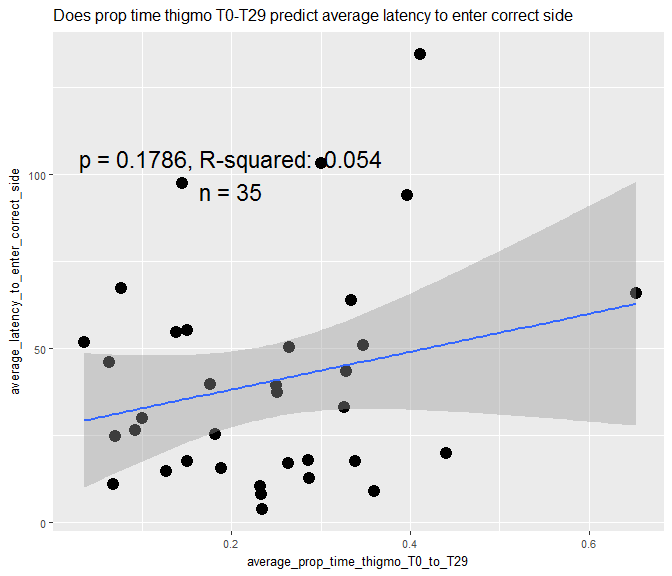


## Warning: In lm.fit(x, y, offset = offset, singular.ok = singular.ok, ...) :  
## extra argument 'na.rm' will be disregarded

##   
## Call:  
## lm(formula = df$average\_latency\_to\_enter\_correct\_side ~ df$average\_prop\_time\_thigmo\_T0\_to\_T29,   
## na.rm = TRUE)  
##   
## Residuals:  
## Min 1Q Median 3Q Max   
## -38.054 -23.455 -3.612 16.711 84.629   
##   
## Coefficients:  
## Estimate Std. Error t value Pr(>|t|)  
## (Intercept) 27.45 10.69 2.568 0.0149  
## df$average\_prop\_time\_thigmo\_T0\_to\_T29 54.30 39.51 1.374 0.1786  
##   
## (Intercept) \*  
## df$average\_prop\_time\_thigmo\_T0\_to\_T29   
## ---  
## Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1  
##   
## Residual standard error: 30.37 on 33 degrees of freedom  
## (1 observation deleted due to missingness)  
## Multiple R-squared: 0.05415, Adjusted R-squared: 0.02549   
## F-statistic: 1.889 on 1 and 33 DF, p-value: 0.1786

## Warning: Removed 1 rows containing non-finite values (stat\_smooth).

## Warning: Removed 1 rows containing missing values (geom\_point).

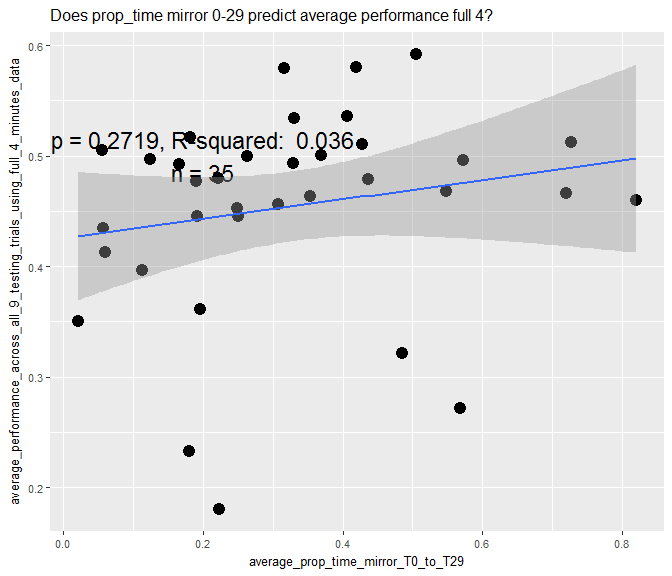


## Warning: In lm.fit(x, y, offset = offset, singular.ok = singular.ok, ...) :  
## extra argument 'na.rm' will be disregarded

##   
## Call:  
## lm(formula = df$average\_performance\_across\_all\_9\_testing\_trials\_using\_full\_4\_minutes\_data ~   
## df$average\_prop\_time\_mirror\_T0\_to\_T29, na.rm = TRUE)  
##   
## Residuals:  
## Min 1Q Median 3Q Max   
## -0.26467 -0.02058 0.01517 0.05120 0.12615   
##   
## Coefficients:  
## Estimate Std. Error t value Pr(>|t|)  
## (Intercept) 0.42590 0.02981 14.286 1.1e-15  
## df$average\_prop\_time\_mirror\_T0\_to\_T29 0.08738 0.07819 1.117 0.272  
##   
## (Intercept) \*\*\*  
## df$average\_prop\_time\_mirror\_T0\_to\_T29   
## ---  
## Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1  
##   
## Residual standard error: 0.09199 on 33 degrees of freedom  
## (1 observation deleted due to missingness)  
## Multiple R-squared: 0.03646, Adjusted R-squared: 0.007264   
## F-statistic: 1.249 on 1 and 33 DF, p-value: 0.2719

## Warning: Removed 1 rows containing non-finite values (stat\_smooth).

## Warning: Removed 1 rows containing missing values (geom\_point).

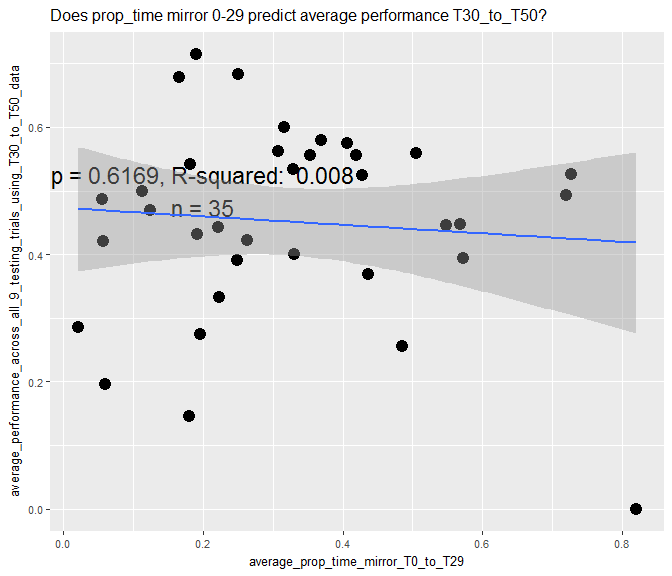


## Warning: In lm.fit(x, y, offset = offset, singular.ok = singular.ok, ...) :  
## extra argument 'na.rm' will be disregarded

##   
## Call:  
## lm(formula = df$average\_performance\_across\_all\_9\_testing\_trials\_using\_T30\_to\_T50\_data ~   
## df$average\_prop\_time\_mirror\_T0\_to\_T29, na.rm = TRUE)  
##   
## Residuals:  
## Min 1Q Median 3Q Max   
## -0.41840 -0.05796 0.01220 0.10861 0.25397   
##   
## Coefficients:  
## Estimate Std. Error t value Pr(>|t|)  
## (Intercept) 0.47297 0.05019 9.423 7.02e-11  
## df$average\_prop\_time\_mirror\_T0\_to\_T29 -0.06648 0.13165 -0.505 0.617  
##   
## (Intercept) \*\*\*  
## df$average\_prop\_time\_mirror\_T0\_to\_T29   
## ---  
## Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1  
##   
## Residual standard error: 0.1549 on 33 degrees of freedom  
## (1 observation deleted due to missingness)  
## Multiple R-squared: 0.007667, Adjusted R-squared: -0.0224   
## F-statistic: 0.255 on 1 and 33 DF, p-value: 0.6169

## Warning: Removed 1 rows containing non-finite values (stat\_smooth).

## Warning: Removed 1 rows containing missing values (geom\_point).

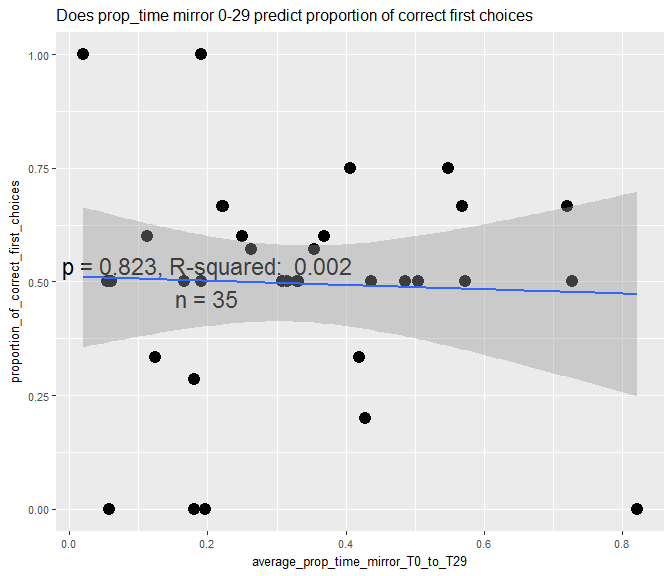


## Warning: In lm.fit(x, y, offset = offset, singular.ok = singular.ok, ...) :  
## extra argument 'na.rm' will be disregarded

##   
## Call:  
## lm(formula = df$proportion\_of\_correct\_first\_choices ~ df$average\_prop\_time\_mirror\_T0\_to\_T29,   
## na.rm = TRUE)  
##   
## Residuals:  
## Min 1Q Median 3Q Max   
## -0.50864 -0.00861 0.01145 0.10320 0.49762   
##   
## Coefficients:  
## Estimate Std. Error t value Pr(>|t|)  
## (Intercept) 0.51130 0.07927 6.450 2.58e-07  
## df$average\_prop\_time\_mirror\_T0\_to\_T29 -0.04687 0.20791 -0.225 0.823  
##   
## (Intercept) \*\*\*  
## df$average\_prop\_time\_mirror\_T0\_to\_T29   
## ---  
## Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1  
##   
## Residual standard error: 0.2446 on 33 degrees of freedom  
## (1 observation deleted due to missingness)  
## Multiple R-squared: 0.001538, Adjusted R-squared: -0.02872   
## F-statistic: 0.05082 on 1 and 33 DF, p-value: 0.823

## Warning: Removed 1 rows containing non-finite values (stat\_smooth).

## Warning: Removed 1 rows containing missing values (geom\_point).

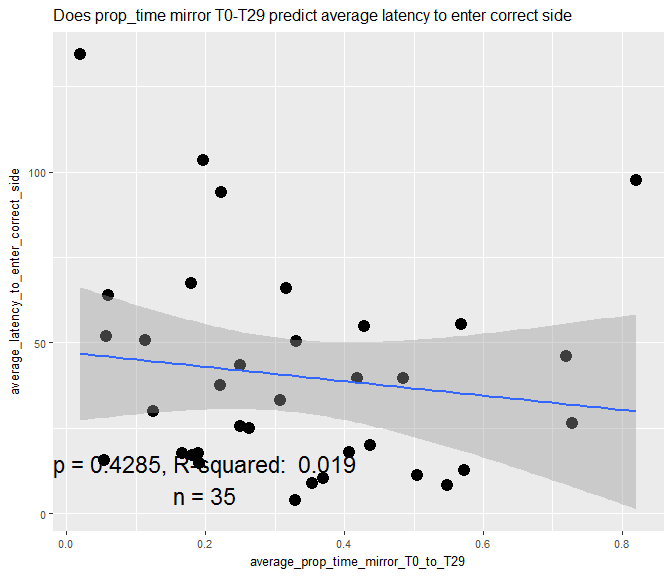


## Warning: In lm.fit(x, y, offset = offset, singular.ok = singular.ok, ...) :  
## extra argument 'na.rm' will be disregarded

##   
## Call:  
## lm(formula = df$average\_latency\_to\_enter\_correct\_side ~ df$average\_prop\_time\_mirror\_T0\_to\_T29,   
## na.rm = TRUE)  
##   
## Residuals:  
## Min 1Q Median 3Q Max   
## -36.257 -25.457 -5.402 15.324 87.671   
##   
## Coefficients:  
## Estimate Std. Error t value Pr(>|t|)  
## (Intercept) 47.18 10.02 4.707 4.36e-05  
## df$average\_prop\_time\_mirror\_T0\_to\_T29 -21.08 26.29 -0.802 0.429  
##   
## (Intercept) \*\*\*  
## df$average\_prop\_time\_mirror\_T0\_to\_T29   
## ---  
## Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1  
##   
## Residual standard error: 30.93 on 33 degrees of freedom  
## (1 observation deleted due to missingness)  
## Multiple R-squared: 0.0191, Adjusted R-squared: -0.01063   
## F-statistic: 0.6425 on 1 and 33 DF, p-value: 0.4285

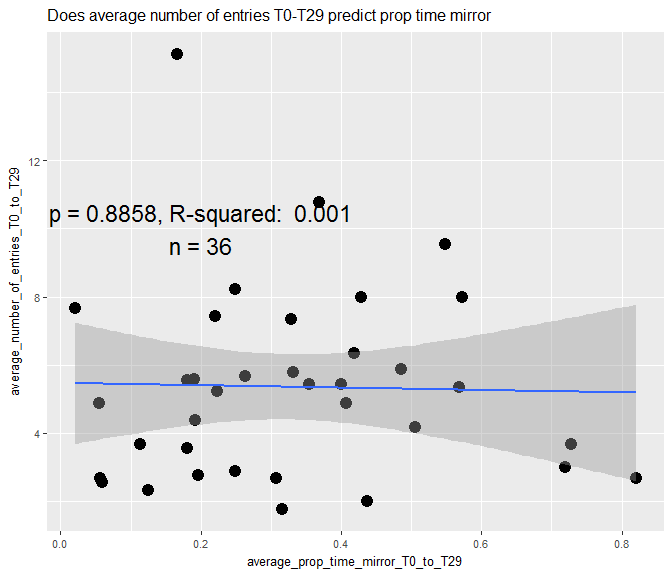
## Warning: Removed 1 rows containing non-finite values (stat\_smooth).

## Warning: Removed 1 rows containing missing values (geom\_point).



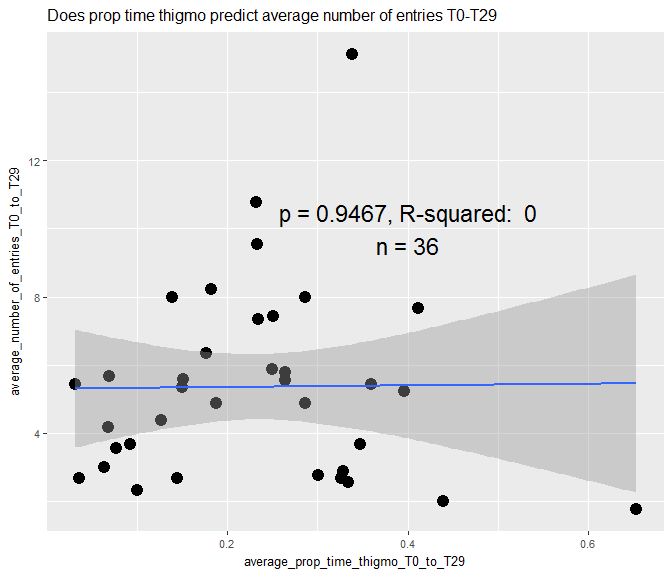
## Warning: In lm.fit(x, y, offset = offset, singular.ok = singular.ok, ...) :  
## extra argument 'na.rm' will be disregarded

##   
## Call:  
## lm(formula = df$average\_number\_of\_entries\_T0\_to\_T29 ~ df$average\_prop\_time\_mirror\_T0\_to\_T29,   
## na.rm = TRUE)  
##   
## Residuals:  
## Min 1Q Median 3Q Max   
## -3.5843 -2.2903 -0.0566 1.2493 9.6971   
##   
## Coefficients:  
## Estimate Std. Error t value Pr(>|t|)  
## (Intercept) 5.4718 0.9166 5.970 9.43e-07  
## df$average\_prop\_time\_mirror\_T0\_to\_T29 -0.3474 2.4006 -0.145 0.886  
##   
## (Intercept) \*\*\*  
## df$average\_prop\_time\_mirror\_T0\_to\_T29   
## ---  
## Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1  
##   
## Residual standard error: 2.83 on 34 degrees of freedom  
## Multiple R-squared: 0.0006156, Adjusted R-squared: -0.02878   
## F-statistic: 0.02094 on 1 and 34 DF, p-value: 0.8858



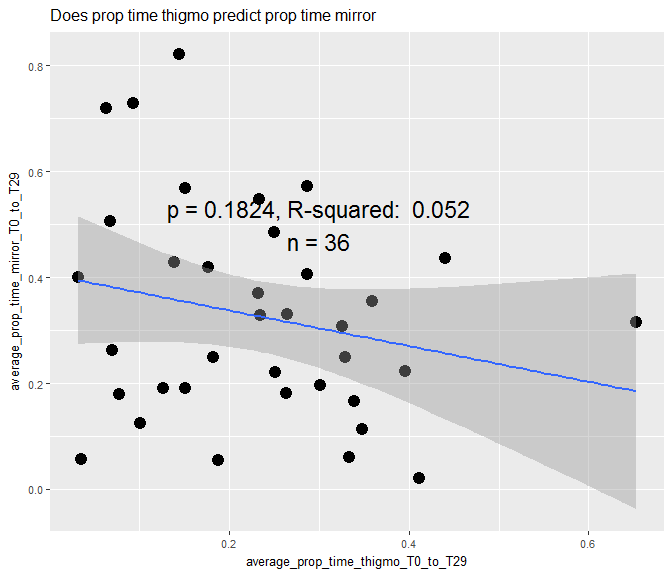
## Warning: In lm.fit(x, y, offset = offset, singular.ok = singular.ok, ...) :  
## extra argument 'na.rm' will be disregarded

##   
## Call:  
## lm(formula = df$average\_number\_of\_entries\_T0\_to\_T29 ~ df$average\_prop\_time\_thigmo\_T0\_to\_T29,   
## na.rm = TRUE)  
##   
## Residuals:  
## Min 1Q Median 3Q Max   
## -3.6815 -2.3614 -0.0903 1.2350 9.7273   
##   
## Coefficients:  
## Estimate Std. Error t value Pr(>|t|)  
## (Intercept) 5.3025 0.9496 5.584 2.99e-06  
## df$average\_prop\_time\_thigmo\_T0\_to\_T29 0.2400 3.5599 0.067 0.947  
##   
## (Intercept) \*\*\*  
## df$average\_prop\_time\_thigmo\_T0\_to\_T29   
## ---  
## Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1  
##   
## Residual standard error: 2.83 on 34 degrees of freedom  
## Multiple R-squared: 0.0001336, Adjusted R-squared: -0.02927   
## F-statistic: 0.004544 on 1 and 34 DF, p-value: 0.9467



## Warning: In lm.fit(x, y, offset = offset, singular.ok = singular.ok, ...) :  
## extra argument 'na.rm' will be disregarded

##   
## Call:  
## lm(formula = df$average\_prop\_time\_mirror\_T0\_to\_T29 ~ df$average\_prop\_time\_thigmo\_T0\_to\_T29,   
## na.rm = TRUE)  
##   
## Residuals:  
## Min 1Q Median 3Q Max   
## -0.33661 -0.14268 0.00422 0.12451 0.46413   
##   
## Coefficients:  
## Estimate Std. Error t value Pr(>|t|)  
## (Intercept) 0.40542 0.06604 6.139 5.7e-07  
## df$average\_prop\_time\_thigmo\_T0\_to\_T29 -0.33703 0.24760 -1.361 0.182  
##   
## (Intercept) \*\*\*  
## df$average\_prop\_time\_thigmo\_T0\_to\_T29   
## ---  
## Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1  
##   
## Residual standard error: 0.1969 on 34 degrees of freedom  
## Multiple R-squared: 0.05168, Adjusted R-squared: 0.02379   
## F-statistic: 1.853 on 1 and 34 DF, p-value: 0.1824

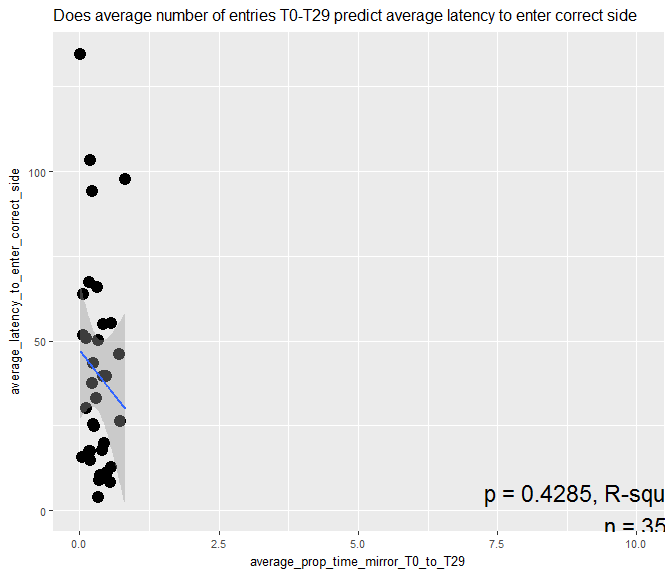


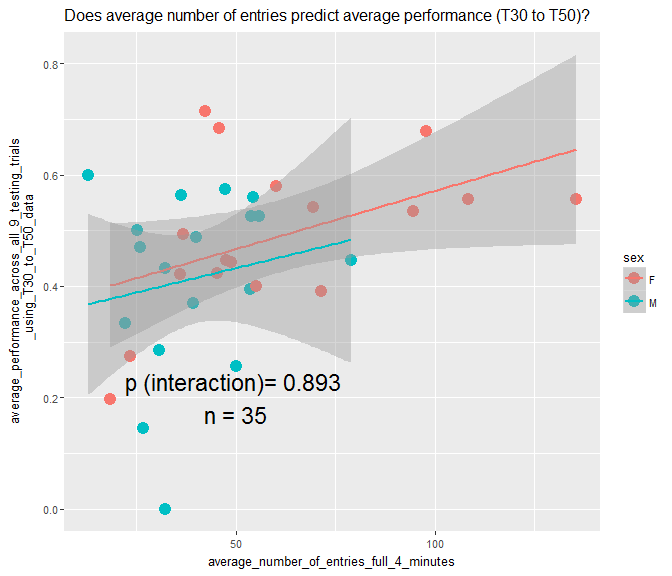
## Warning: In lm.fit(x, y, offset = offset, singular.ok = singular.ok, ...) :  
## extra argument 'na.rm' will be disregarded

##   
## Call:  
## lm(formula = df$average\_latency\_to\_enter\_correct\_side ~ df$average\_prop\_time\_mirror\_T0\_to\_T29,   
## na.rm = TRUE)  
##   
## Residuals:  
## Min 1Q Median 3Q Max   
## -36.257 -25.457 -5.402 15.324 87.671   
##   
## Coefficients:  
## Estimate Std. Error t value Pr(>|t|)  
## (Intercept) 47.18 10.02 4.707 4.36e-05  
## df$average\_prop\_time\_mirror\_T0\_to\_T29 -21.08 26.29 -0.802 0.429  
##   
## (Intercept) \*\*\*  
## df$average\_prop\_time\_mirror\_T0\_to\_T29   
## ---  
## Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1  
##   
## Residual standard error: 30.93 on 33 degrees of freedom  
## (1 observation deleted due to missingness)  
## Multiple R-squared: 0.0191, Adjusted R-squared: -0.01063   
## F-statistic: 0.6425 on 1 and 33 DF, p-value: 0.4285

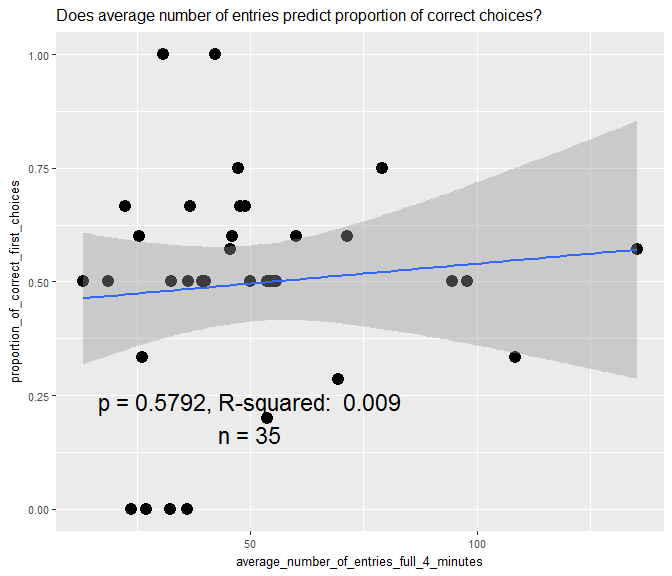
## Warning: Removed 1 rows containing non-finite values (stat\_smooth).

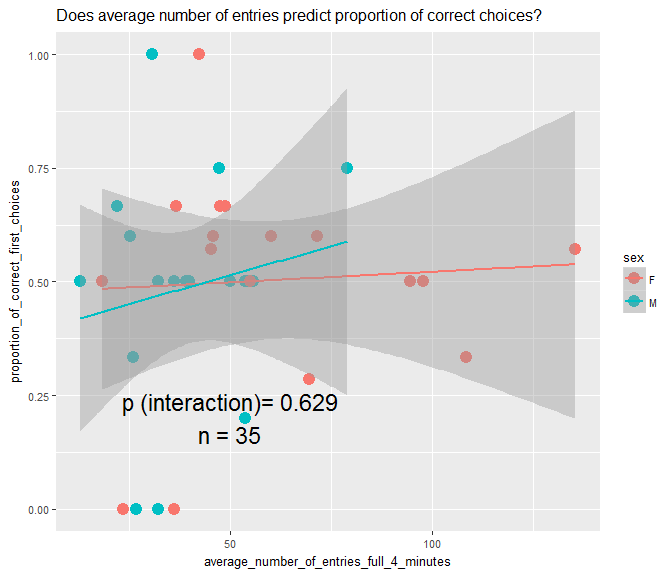
## Warning: Removed 1 rows containing missing values (geom\_point).



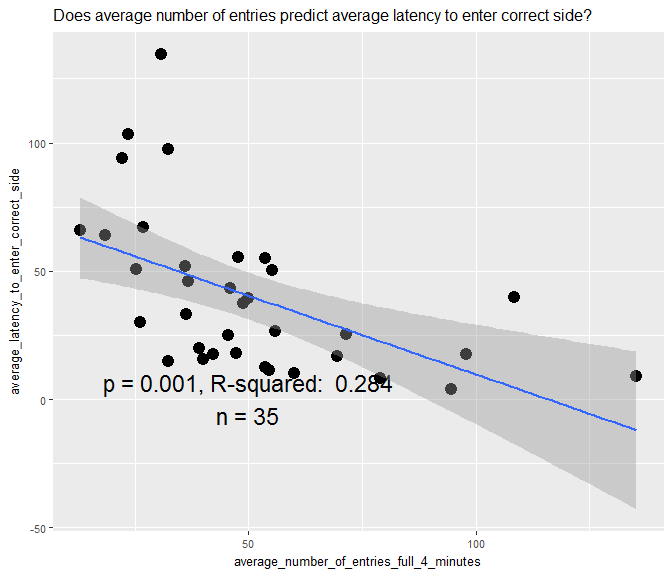


##   
## Call:  
## lm(formula = df$proportion\_of\_correct\_first\_choices ~ df$average\_number\_of\_entries\_full\_4\_minutes,   
## na.rm = TRUE)  
##   
## Residuals:  
## Min 1Q Median 3Q Max   
## -0.48374 -0.03635 0.01354 0.11670 0.52093   
##   
## Coefficients:  
## Estimate Std. Error t value  
## (Intercept) 0.4521032 0.0886150 5.102  
## df$average\_number\_of\_entries\_full\_4\_minutes 0.0008761 0.0015640 0.560  
## Pr(>|t|)   
## (Intercept) 1.37e-05 \*\*\*  
## df$average\_number\_of\_entries\_full\_4\_minutes 0.579   
## ---  
## Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1  
##   
## Residual standard error: 0.2436 on 33 degrees of freedom  
## (1 observation deleted due to missingness)  
## Multiple R-squared: 0.009418, Adjusted R-squared: -0.0206   
## F-statistic: 0.3138 on 1 and 33 DF, p-value: 0.5792

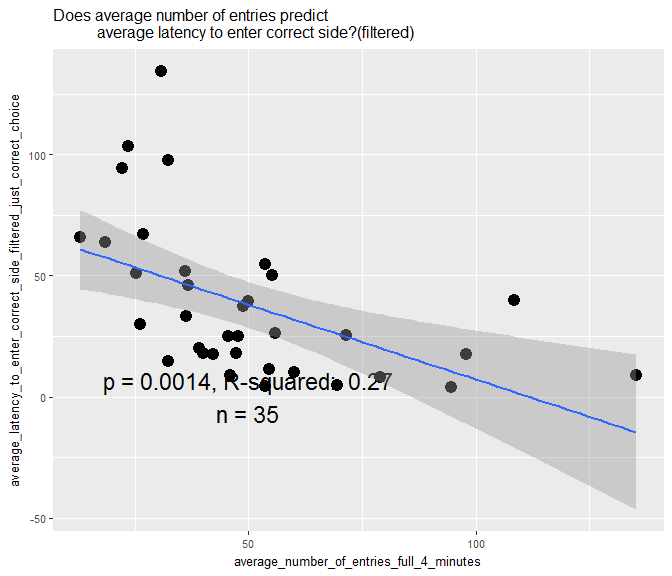


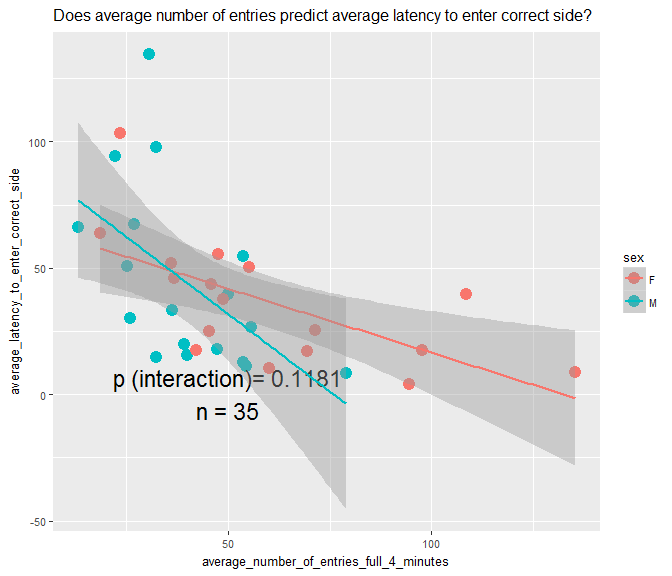


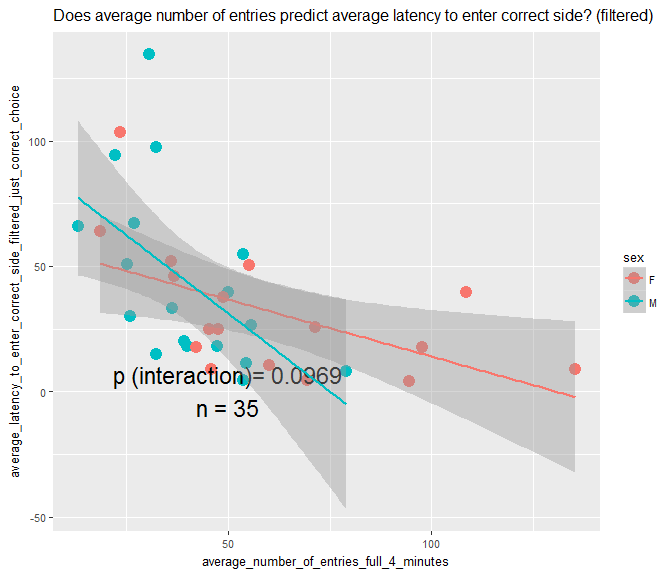
##   
## Call:  
## lm(formula = df$average\_latency\_to\_enter\_correct\_side ~ df$average\_number\_of\_entries\_full\_4\_minutes,   
## na.rm = TRUE)  
##   
## Residuals:  
## Min 1Q Median 3Q Max   
## -36.519 -21.098 -2.549 12.826 82.193   
##   
## Coefficients:  
## Estimate Std. Error t value  
## (Intercept) 71.1268 9.6114 7.400  
## df$average\_number\_of\_entries\_full\_4\_minutes -0.6139 0.1696 -3.619  
## Pr(>|t|)   
## (Intercept) 1.68e-08 \*\*\*  
## df$average\_number\_of\_entries\_full\_4\_minutes 0.000978 \*\*\*  
## ---  
## Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1  
##   
## Residual standard error: 26.42 on 33 degrees of freedom  
## (1 observation deleted due to missingness)  
## Multiple R-squared: 0.2841, Adjusted R-squared: 0.2624   
## F-statistic: 13.1 on 1 and 33 DF, p-value: 0.0009781



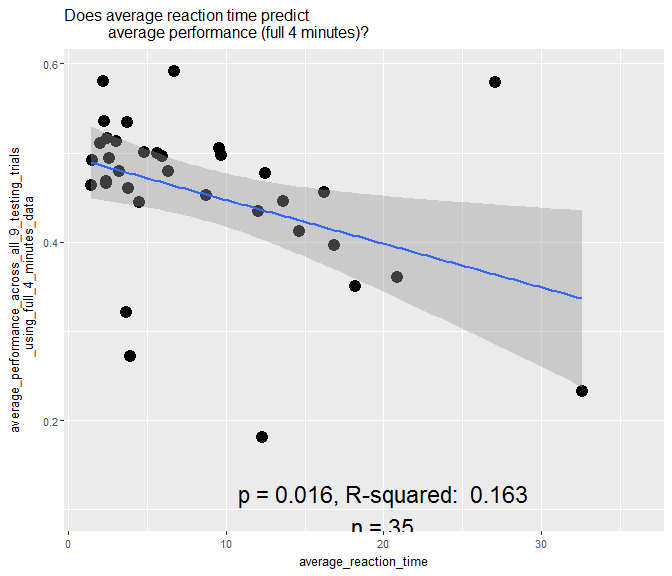
##   
## Call:  
## lm(formula = df$average\_latency\_to\_enter\_correct\_side\_filtered\_just\_correct\_choice ~   
## df$average\_number\_of\_entries\_full\_4\_minutes, na.rm = TRUE)  
##   
## Residuals:  
## Min 1Q Median 3Q Max   
## -34.19 -21.67 -2.44 11.97 84.51   
##   
## Coefficients:  
## Estimate Std. Error t value  
## (Intercept) 68.8875 9.9896 6.896  
## df$average\_number\_of\_entries\_full\_4\_minutes -0.6166 0.1763 -3.497  
## Pr(>|t|)   
## (Intercept) 7.09e-08 \*\*\*  
## df$average\_number\_of\_entries\_full\_4\_minutes 0.00137 \*\*   
## ---  
## Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1  
##   
## Residual standard error: 27.46 on 33 degrees of freedom  
## (1 observation deleted due to missingness)  
## Multiple R-squared: 0.2704, Adjusted R-squared: 0.2483   
## F-statistic: 12.23 on 1 and 33 DF, p-value: 0.001367



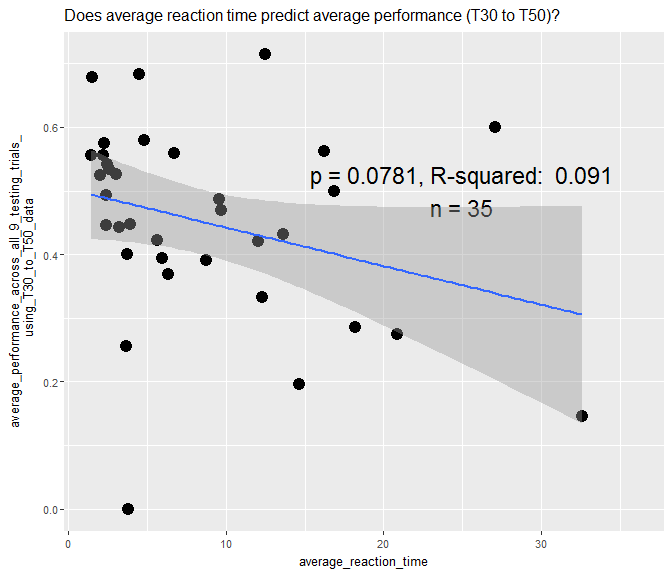


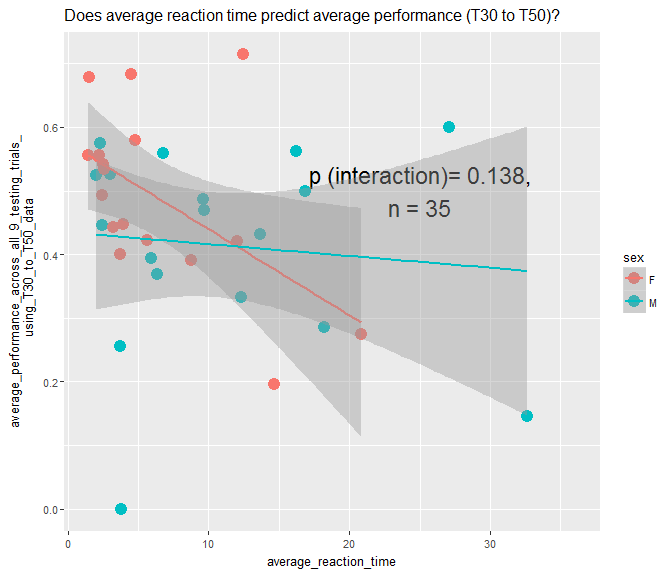


##   
## Call:  
## lm(formula = df$average\_performance\_across\_all\_9\_testing\_trials\_using\_full\_4\_minutes\_data ~   
## df$average\_reaction\_time, na.rm = TRUE)  
##   
## Residuals:  
## Min 1Q Median 3Q Max   
## -0.25542 -0.01796 0.01001 0.03612 0.21608   
##   
## Coefficients:  
## Estimate Std. Error t value Pr(>|t|)   
## (Intercept) 0.496242 0.021969 22.588 <2e-16 \*\*\*  
## df$average\_reaction\_time -0.004895 0.001929 -2.538 0.016 \*   
## ---  
## Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1  
##   
## Residual standard error: 0.08572 on 33 degrees of freedom  
## (1 observation deleted due to missingness)  
## Multiple R-squared: 0.1633, Adjusted R-squared: 0.138   
## F-statistic: 6.442 on 1 and 33 DF, p-value: 0.01605

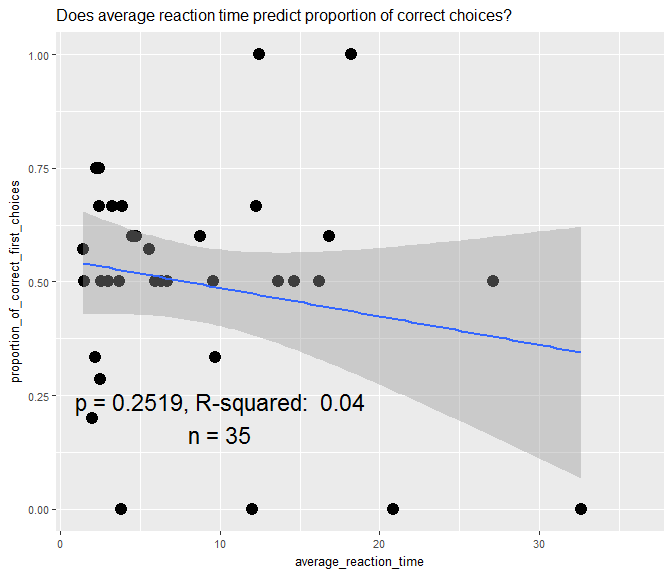


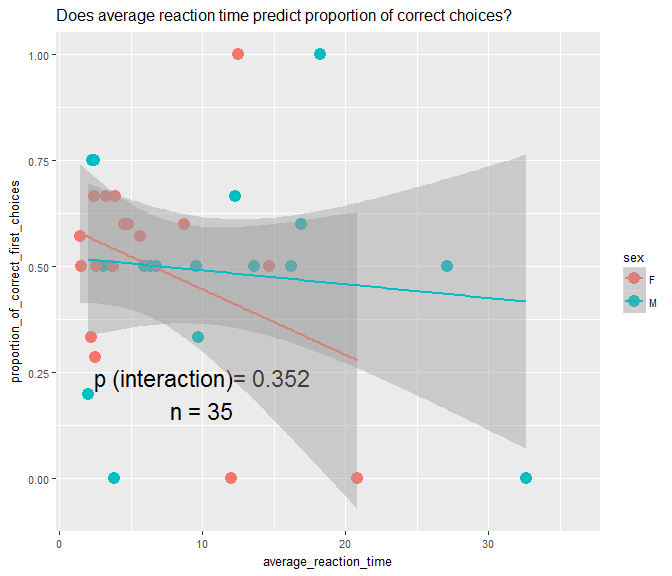
##   
## Call:  
## lm(formula = df$average\_performance\_across\_all\_9\_testing\_trials\_using\_T30\_to\_T50\_data ~   
## df$average\_reaction\_time, na.rm = TRUE)  
##   
## Residuals:  
## Min 1Q Median 3Q Max   
## -0.48020 -0.07666 0.01148 0.07547 0.28663   
##   
## Coefficients:  
## Estimate Std. Error t value Pr(>|t|)   
## (Intercept) 0.503268 0.037990 13.248 9.22e-15 \*\*\*  
## df$average\_reaction\_time -0.006064 0.003335 -1.818 0.0781 .   
## ---  
## Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1  
##   
## Residual standard error: 0.1482 on 33 degrees of freedom  
## (1 observation deleted due to missingness)  
## Multiple R-squared: 0.09107, Adjusted R-squared: 0.06352   
## F-statistic: 3.306 on 1 and 33 DF, p-value: 0.0781



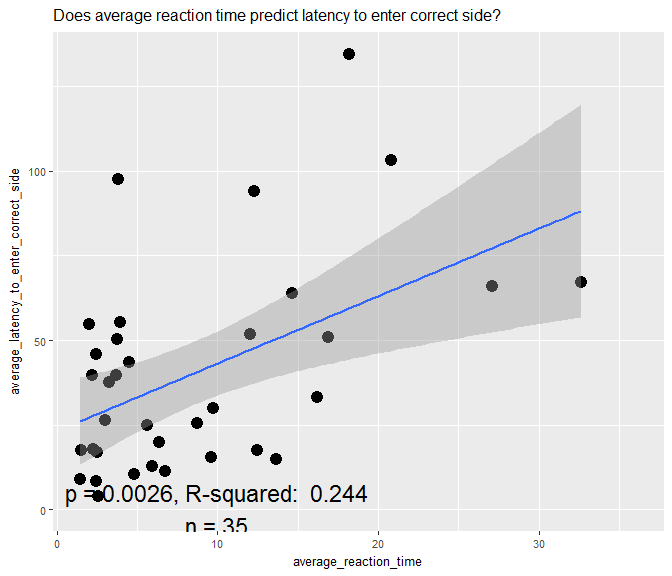


##   
## Call:  
## lm(formula = df$proportion\_of\_correct\_first\_choices ~ df$average\_reaction\_time,   
## na.rm = TRUE)  
##   
## Residuals:  
## Min 1Q Median 3Q Max   
## -0.52601 -0.03706 0.03076 0.12634 0.56462   
##   
## Coefficients:  
## Estimate Std. Error t value Pr(>|t|)   
## (Intercept) 0.549947 0.061481 8.945 2.44e-10 \*\*\*  
## df$average\_reaction\_time -0.006294 0.005397 -1.166 0.252   
## ---  
## Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1  
##   
## Residual standard error: 0.2399 on 33 degrees of freedom  
## (1 observation deleted due to missingness)  
## Multiple R-squared: 0.03958, Adjusted R-squared: 0.01047   
## F-statistic: 1.36 on 1 and 33 DF, p-value: 0.2519

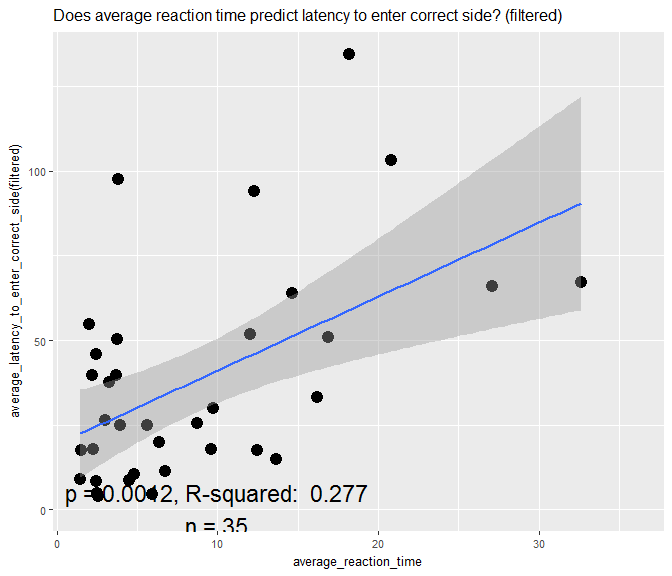


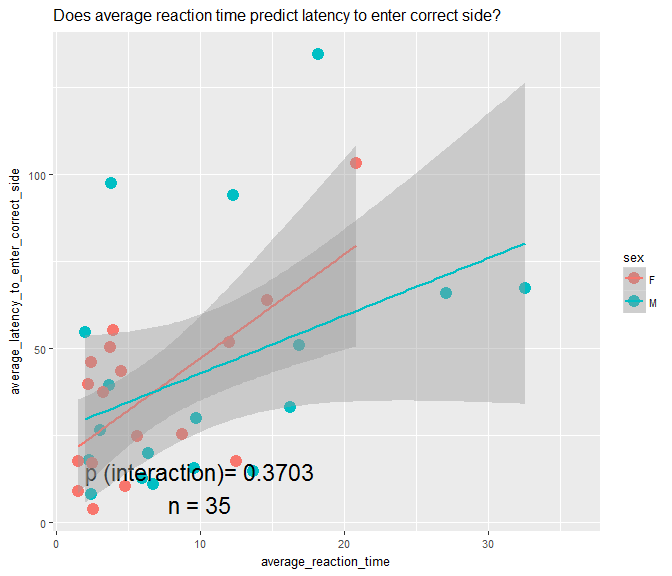


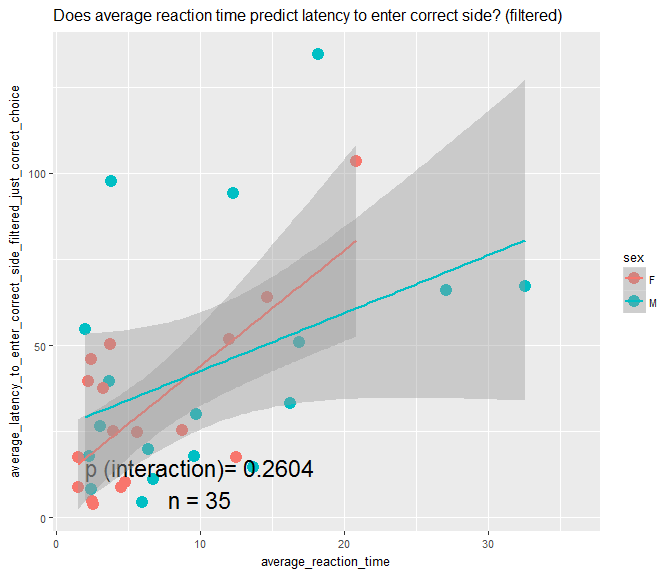
##   
## Call:  
## lm(formula = df$average\_latency\_to\_enter\_correct\_side ~ df$average\_reaction\_time,   
## na.rm = TRUE)  
##   
## Residuals:  
## Min 1Q Median 3Q Max   
## -35.718 -20.414 -9.516 11.745 74.886   
##   
## Coefficients:  
## Estimate Std. Error t value Pr(>|t|)   
## (Intercept) 23.264 6.960 3.342 0.00208 \*\*  
## df$average\_reaction\_time 1.993 0.611 3.261 0.00258 \*\*  
## ---  
## Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1  
##   
## Residual standard error: 27.16 on 33 degrees of freedom  
## (1 observation deleted due to missingness)  
## Multiple R-squared: 0.2438, Adjusted R-squared: 0.2208   
## F-statistic: 10.64 on 1 and 33 DF, p-value: 0.002578



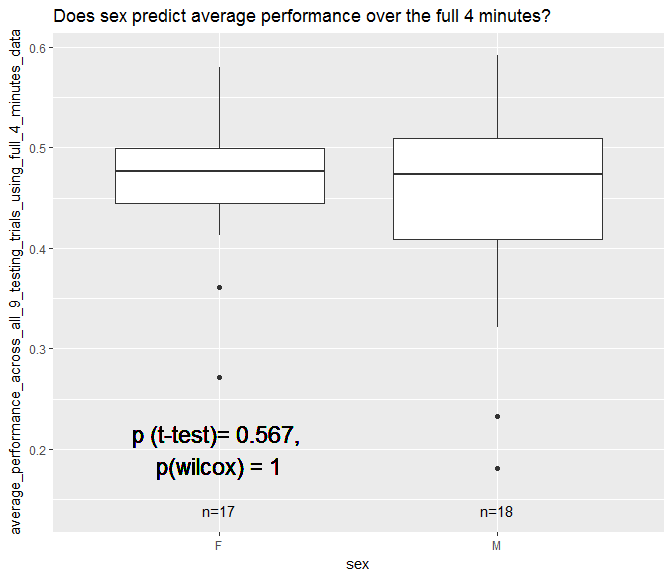
##   
## Call:  
## lm(formula = df$average\_latency\_to\_enter\_correct\_side\_filtered\_just\_correct\_choice ~   
## df$average\_reaction\_time, na.rm = TRUE)  
##   
## Residuals:  
## Min 1Q Median 3Q Max   
## -34.324 -20.183 -6.575 12.477 75.402   
##   
## Coefficients:  
## Estimate Std. Error t value Pr(>|t|)   
## (Intercept) 19.2423 7.0088 2.745 0.00970 \*\*  
## df$average\_reaction\_time 2.1854 0.6153 3.552 0.00118 \*\*  
## ---  
## Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1  
##   
## Residual standard error: 27.35 on 33 degrees of freedom  
## (1 observation deleted due to missingness)  
## Multiple R-squared: 0.2766, Adjusted R-squared: 0.2547   
## F-statistic: 12.62 on 1 and 33 DF, p-value: 0.001176

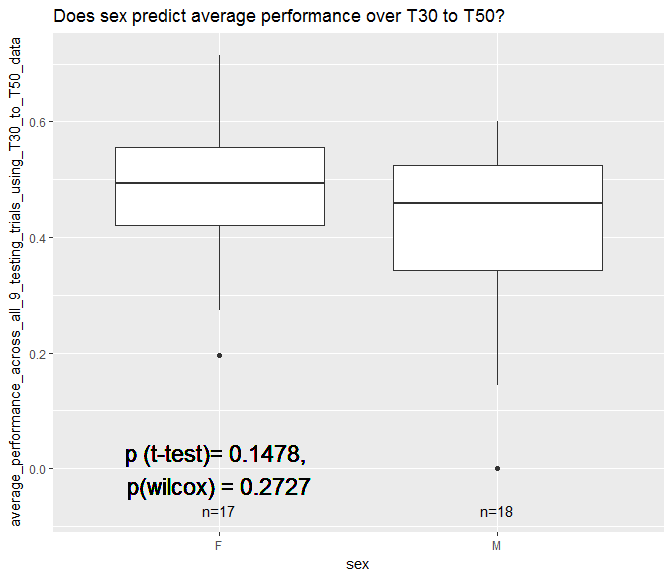


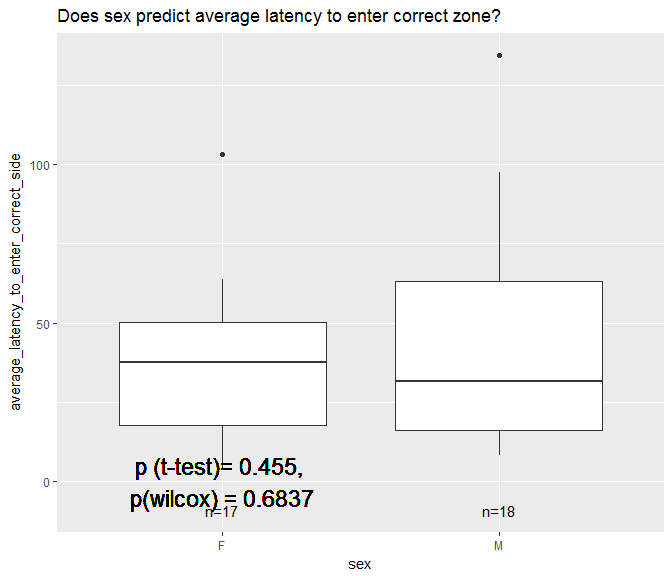


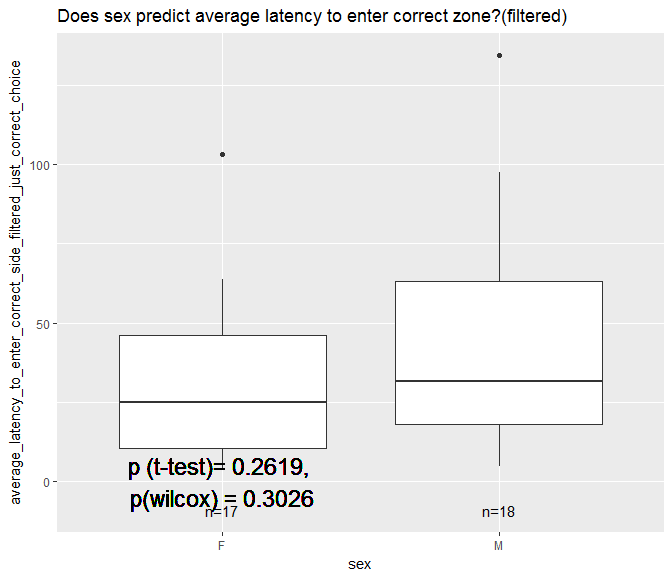


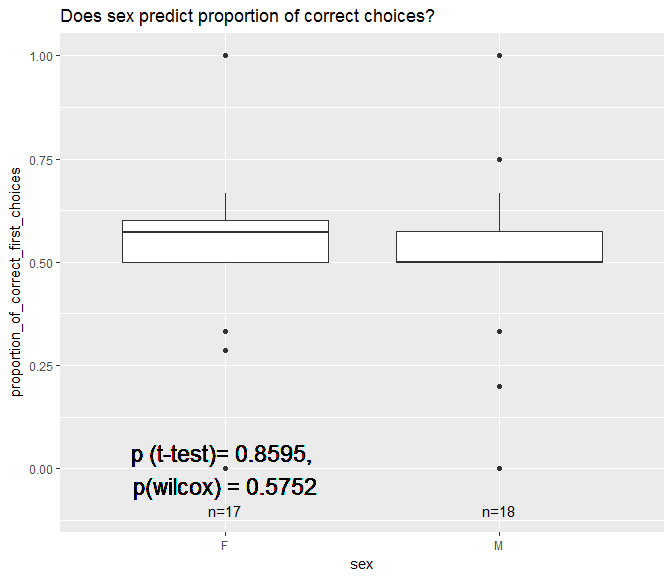
## NULL

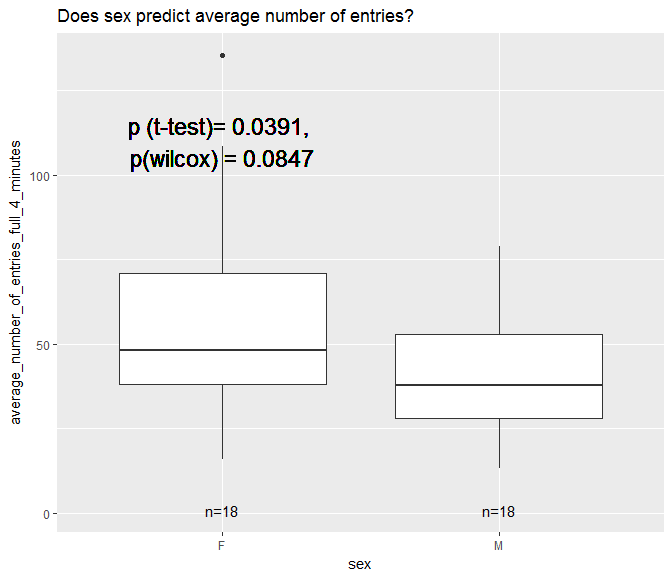


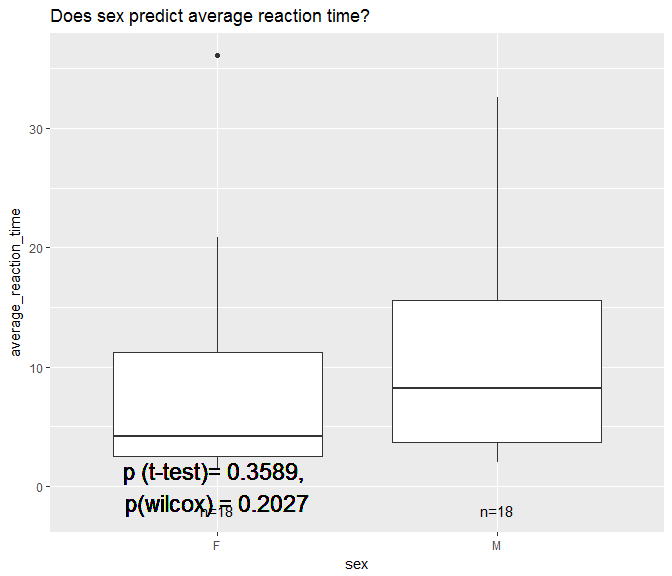




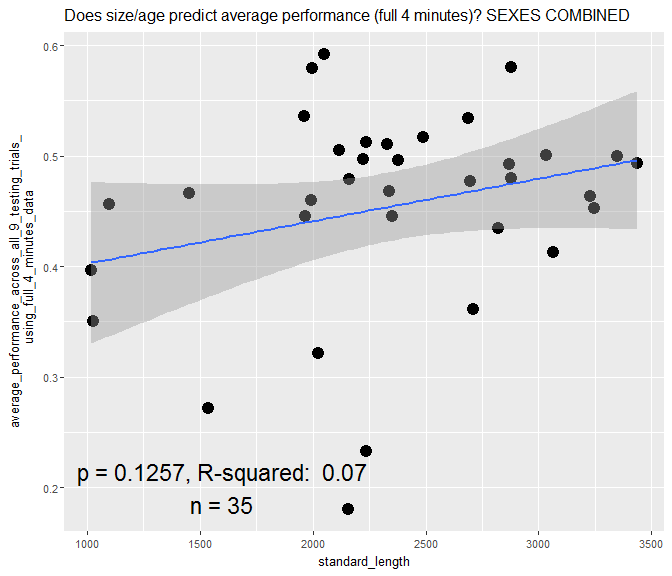


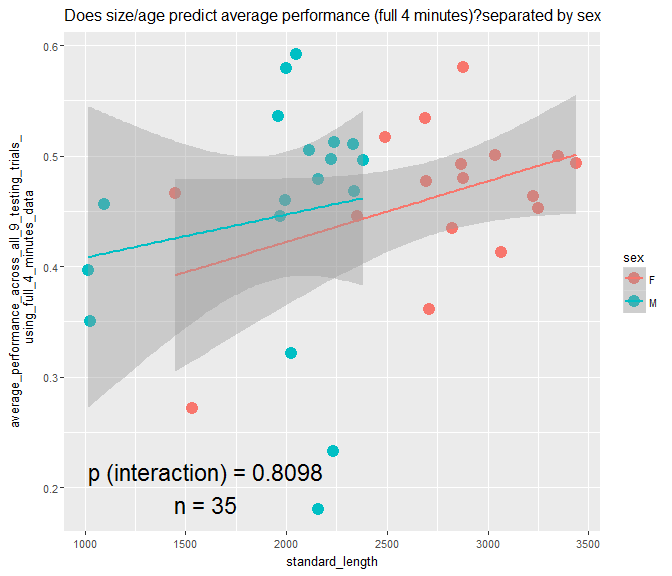




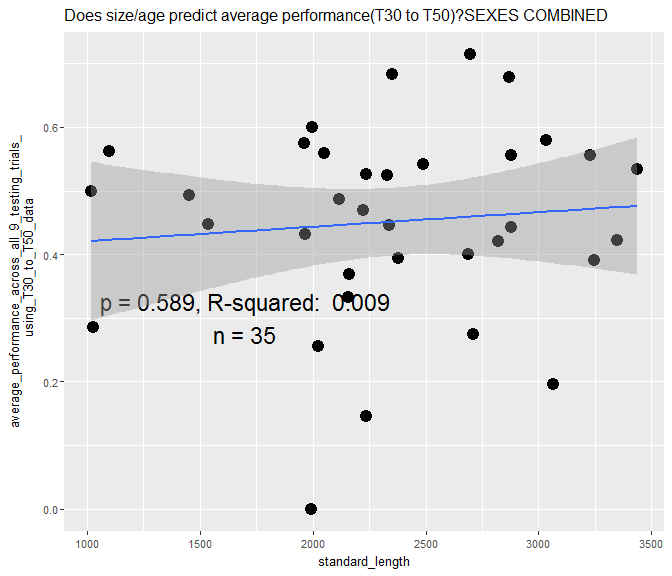


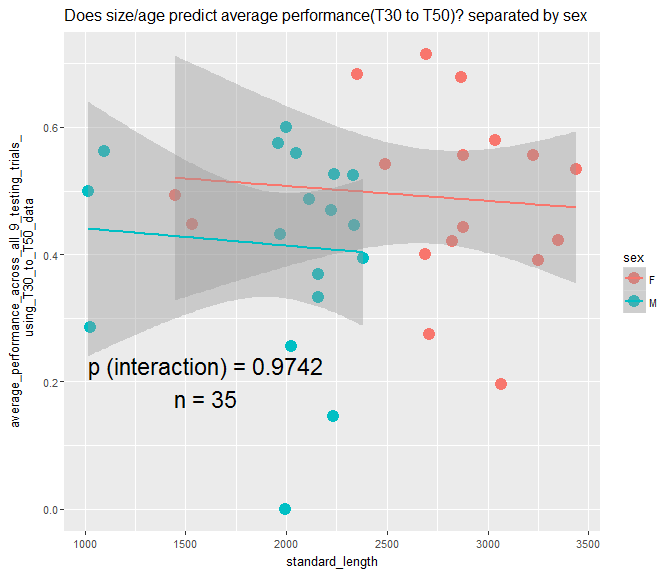
##   
## Call:  
## lm(formula = df$average\_performance\_across\_all\_9\_testing\_trials\_using\_full\_4\_minutes\_data ~   
## df$standard\_length, na.rm = TRUE)  
##   
## Residuals:  
## Min 1Q Median 3Q Max   
## -0.26642 -0.03032 0.01447 0.05319 0.14874   
##   
## Coefficients:  
## Estimate Std. Error t value Pr(>|t|)   
## (Intercept) 3.643e-01 5.932e-02 6.141 6.38e-07 \*\*\*  
## df$standard\_length 3.842e-05 2.445e-05 1.571 0.126   
## ---  
## Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1  
##   
## Residual standard error: 0.09039 on 33 degrees of freedom  
## (1 observation deleted due to missingness)  
## Multiple R-squared: 0.0696, Adjusted R-squared: 0.04141   
## F-statistic: 2.469 on 1 and 33 DF, p-value: 0.1257



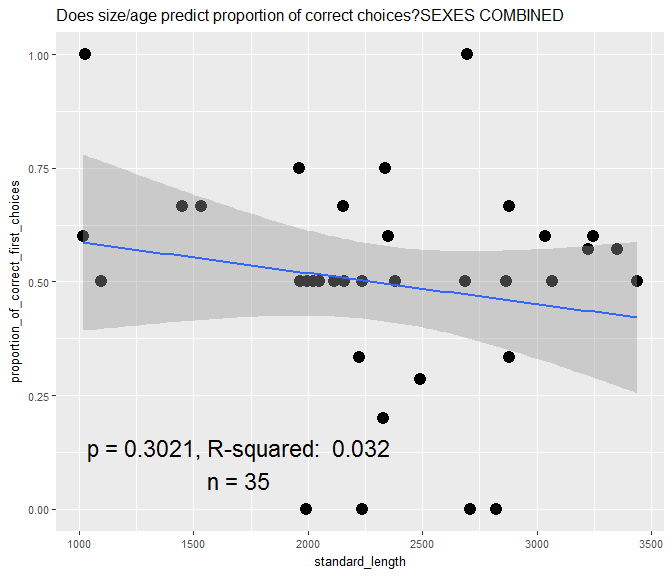


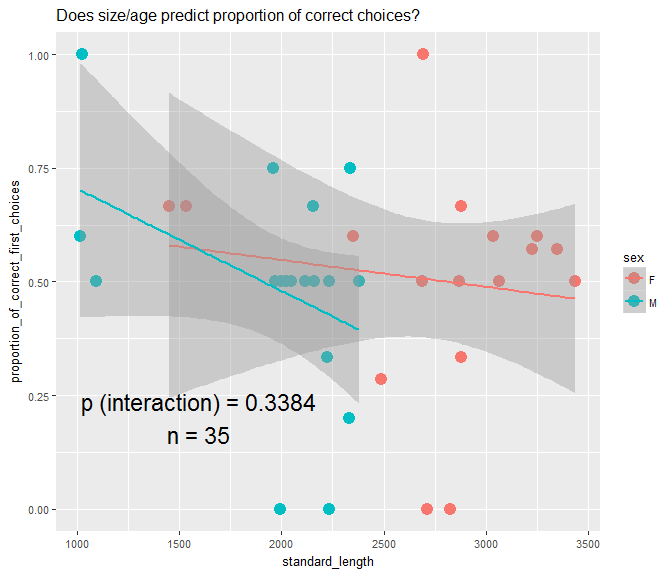
##   
## Call:  
## lm(formula = df$average\_performance\_across\_all\_9\_testing\_trials\_using\_T30\_to\_T50\_data ~   
## df$standard\_length, na.rm = TRUE)  
##   
## Residuals:  
## Min 1Q Median 3Q Max   
## -0.44331 -0.06870 0.02141 0.08930 0.25492   
##   
## Coefficients:  
## Estimate Std. Error t value Pr(>|t|)   
## (Intercept) 3.978e-01 1.016e-01 3.917 0.000426 \*\*\*  
## df$standard\_length 2.284e-05 4.187e-05 0.546 0.589046   
## ---  
## Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1  
##   
## Residual standard error: 0.1548 on 33 degrees of freedom  
## (1 observation deleted due to missingness)  
## Multiple R-squared: 0.008938, Adjusted R-squared: -0.02109   
## F-statistic: 0.2976 on 1 and 33 DF, p-value: 0.589



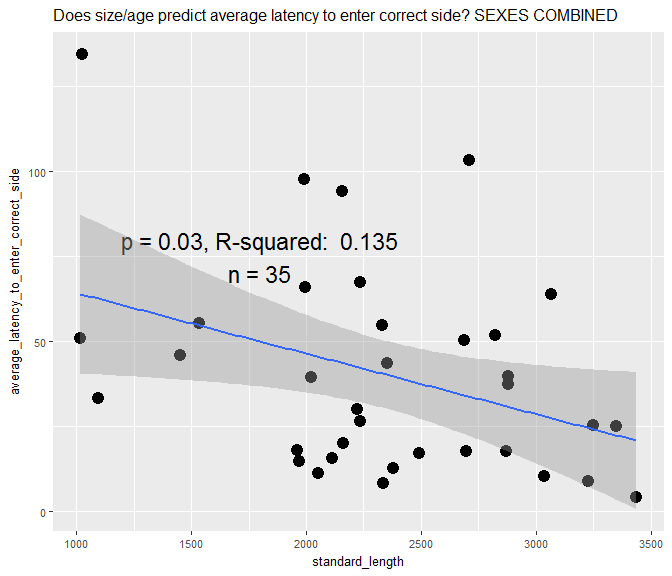


##   
## Call:  
## lm(formula = df$proportion\_of\_correct\_first\_choices ~ df$standard\_length,   
## na.rm = TRUE)  
##   
## Residuals:  
## Min 1Q Median 3Q Max   
## -0.52008 -0.05146 0.01347 0.13990 0.52793   
##   
## Coefficients:  
## Estimate Std. Error t value Pr(>|t|)   
## (Intercept) 6.561e-01 1.580e-01 4.152 0.000218 \*\*\*  
## df$standard\_length -6.830e-05 6.515e-05 -1.048 0.302084   
## ---  
## Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1  
##   
## Residual standard error: 0.2408 on 33 degrees of freedom  
## (1 observation deleted due to missingness)  
## Multiple R-squared: 0.03223, Adjusted R-squared: 0.002906   
## F-statistic: 1.099 on 1 and 33 DF, p-value: 0.3021

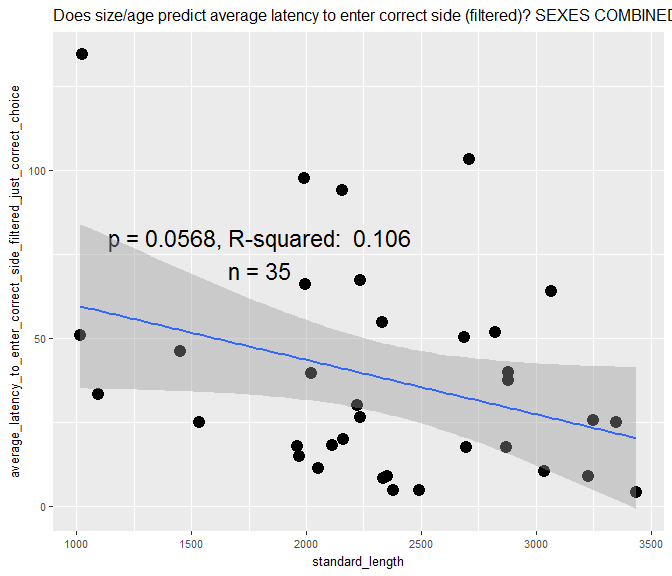


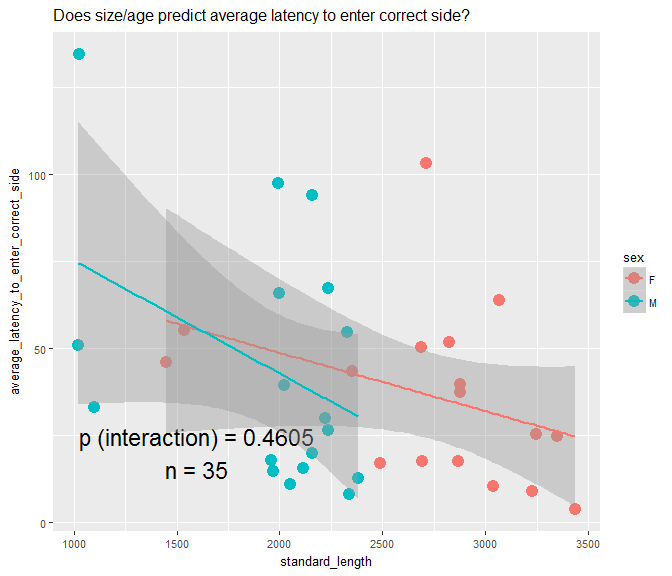


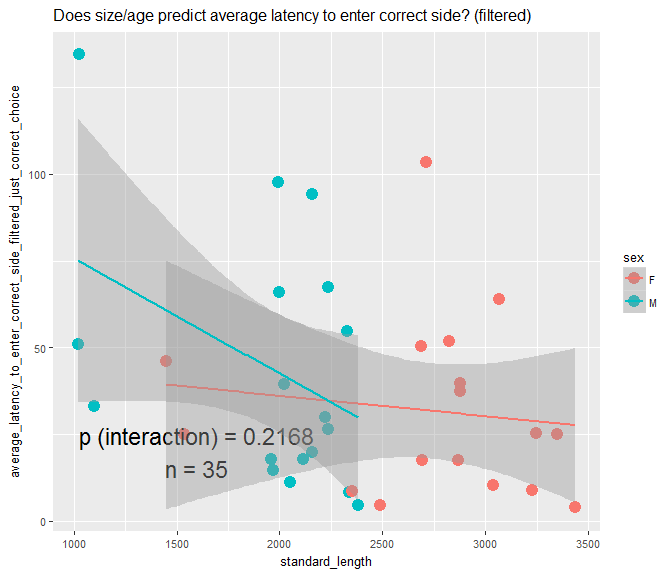
##   
## Call:  
## lm(formula = df$average\_latency\_to\_enter\_correct\_side ~ df$standard\_length,   
## na.rm = TRUE)  
##   
## Residuals:  
## Min 1Q Median 3Q Max   
## -34.37 -19.22 -10.26 15.16 70.59   
##   
## Coefficients:  
## Estimate Std. Error t value Pr(>|t|)   
## (Intercept) 82.098937 19.062293 4.307 0.00014 \*\*\*  
## df$standard\_length -0.017822 0.007859 -2.268 0.03001 \*   
## ---  
## Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1  
##   
## Residual standard error: 29.05 on 33 degrees of freedom  
## (1 observation deleted due to missingness)  
## Multiple R-squared: 0.1348, Adjusted R-squared: 0.1086   
## F-statistic: 5.143 on 1 and 33 DF, p-value: 0.03001



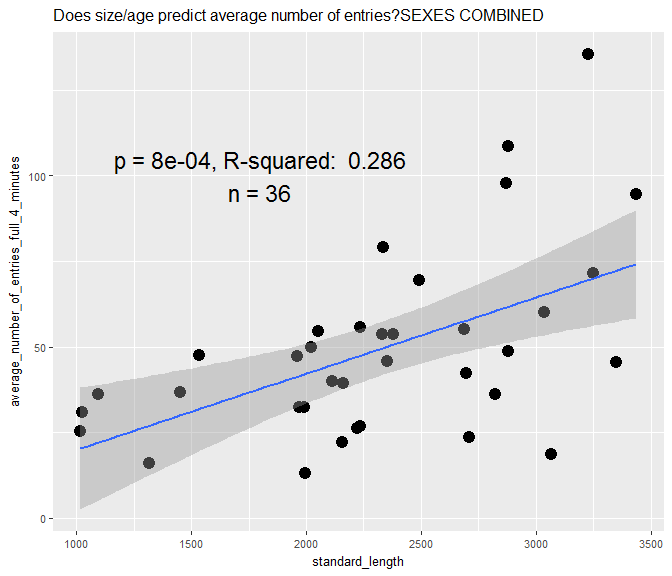
##   
## Call:  
## lm(formula = df$average\_latency\_to\_enter\_correct\_side\_filtered\_just\_correct\_choice ~   
## df$standard\_length, na.rm = TRUE)  
##   
## Residuals:  
## Min 1Q Median 3Q Max   
## -32.786 -24.362 -9.915 17.275 75.055   
##   
## Coefficients:  
## Estimate Std. Error t value Pr(>|t|)   
## (Intercept) 76.014155 19.953738 3.810 0.000576 \*\*\*  
## df$standard\_length -0.016238 0.008226 -1.974 0.056806 .   
## ---  
## Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1  
##   
## Residual standard error: 30.41 on 33 degrees of freedom  
## (1 observation deleted due to missingness)  
## Multiple R-squared: 0.1056, Adjusted R-squared: 0.0785   
## F-statistic: 3.897 on 1 and 33 DF, p-value: 0.05681

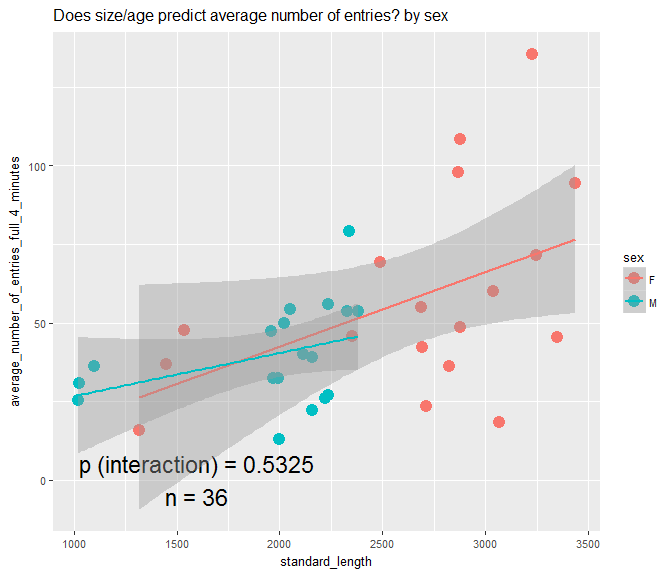




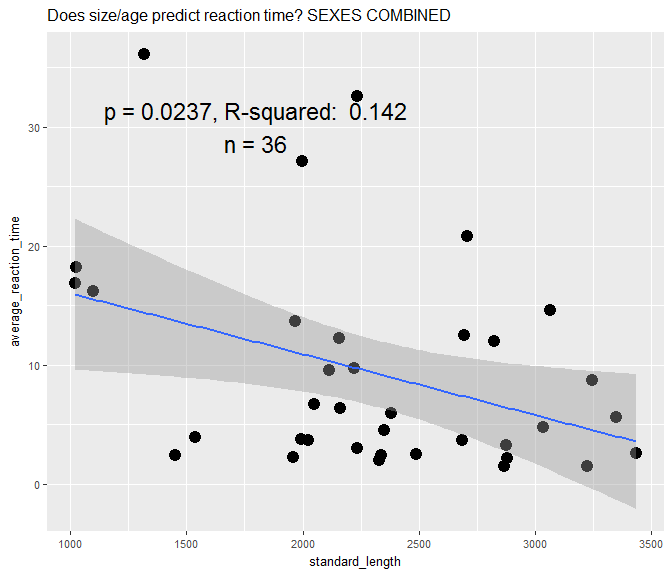


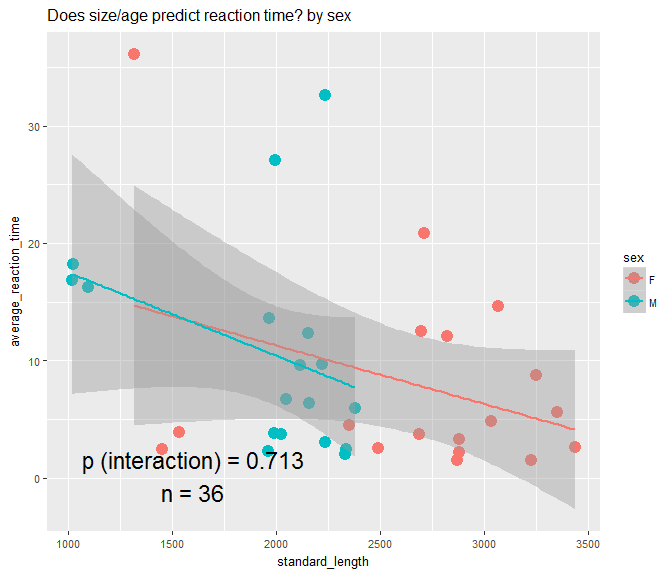
##   
## Call:  
## lm(formula = df$average\_number\_of\_entries\_full\_4\_minutes ~ df$standard\_length,   
## na.rm = TRUE)  
##   
## Residuals:  
## Min 1Q Median 3Q Max   
## -47.372 -13.570 -0.457 10.501 65.823   
##   
## Coefficients:  
## Estimate Std. Error t value Pr(>|t|)   
## (Intercept) -2.306335 14.472021 -0.159 0.874324   
## df$standard\_length 0.022255 0.006026 3.693 0.000772 \*\*\*  
## ---  
## Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1  
##   
## Residual standard error: 23.09 on 34 degrees of freedom  
## Multiple R-squared: 0.2863, Adjusted R-squared: 0.2653   
## F-statistic: 13.64 on 1 and 34 DF, p-value: 0.0007722

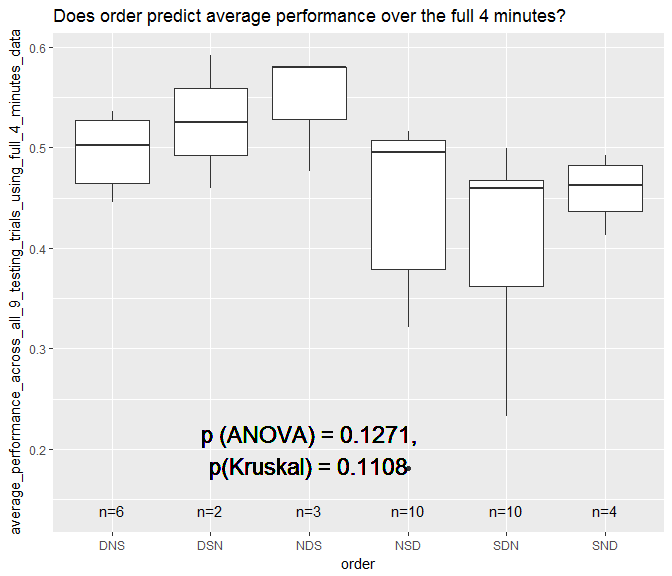


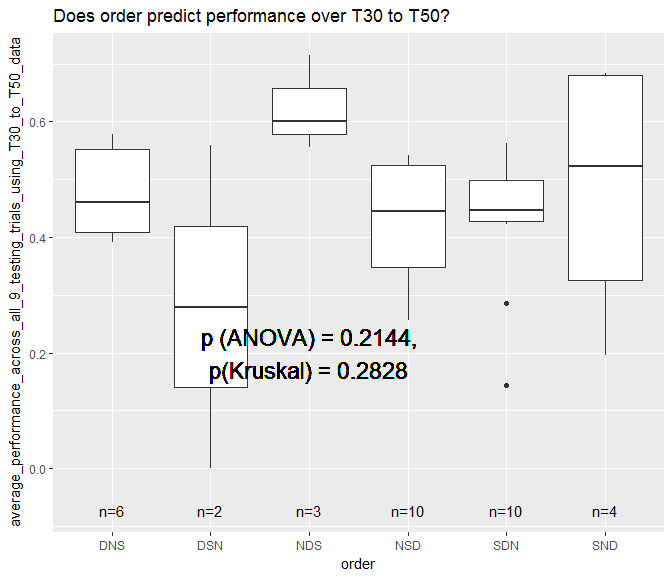


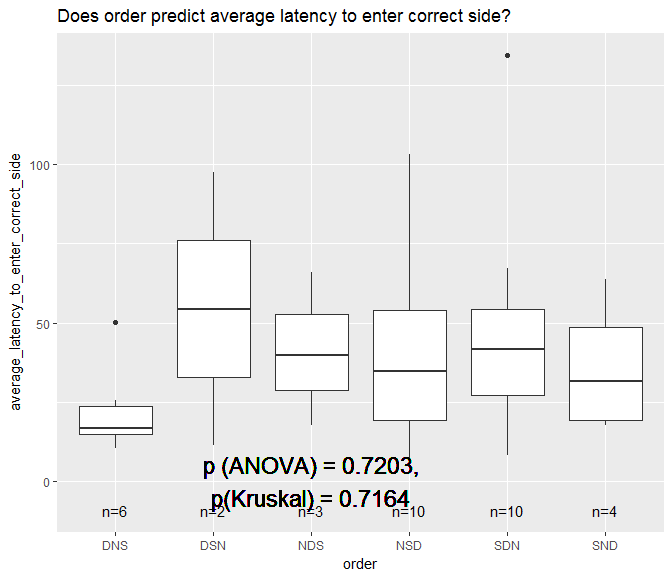
##   
## Call:  
## lm(formula = df$average\_reaction\_time ~ df$standard\_length, na.rm = TRUE)  
##   
## Residuals:  
## Min 1Q Median 3Q Max   
## -11.320 -5.215 -2.035 2.344 22.879   
##   
## Coefficients:  
## Estimate Std. Error t value Pr(>|t|)   
## (Intercept) 21.163842 5.186484 4.081 0.000257 \*\*\*  
## df$standard\_length -0.005112 0.002159 -2.367 0.023743 \*   
## ---  
## Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1  
##   
## Residual standard error: 8.275 on 34 degrees of freedom  
## Multiple R-squared: 0.1415, Adjusted R-squared: 0.1163   
## F-statistic: 5.605 on 1 and 34 DF, p-value: 0.02374

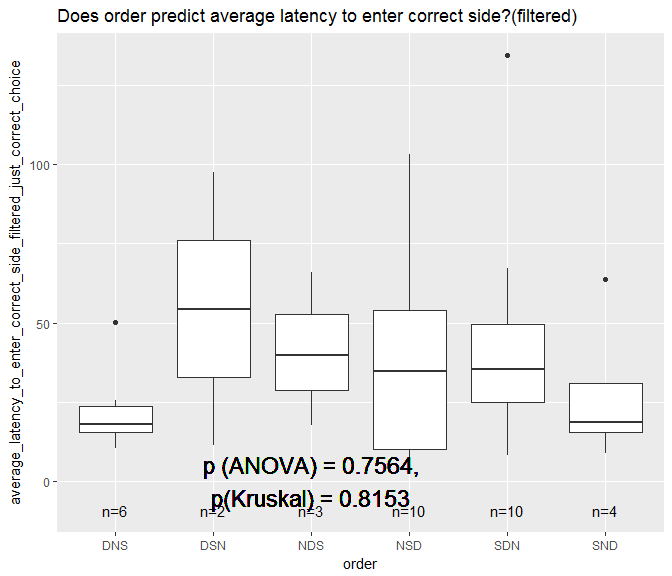


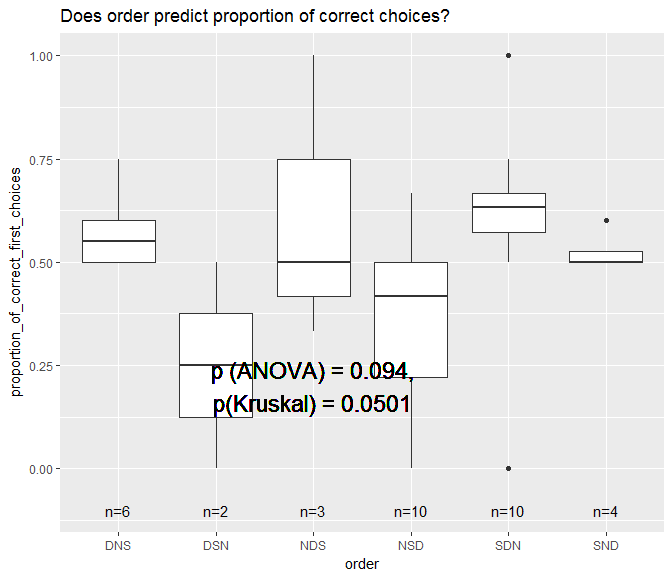


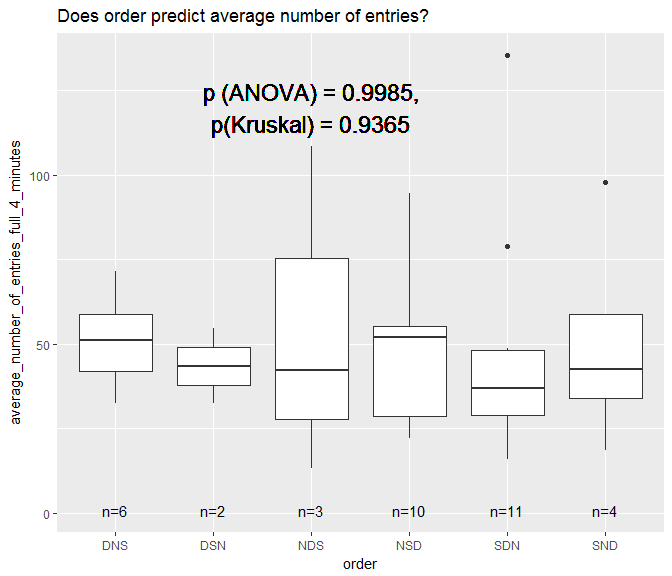


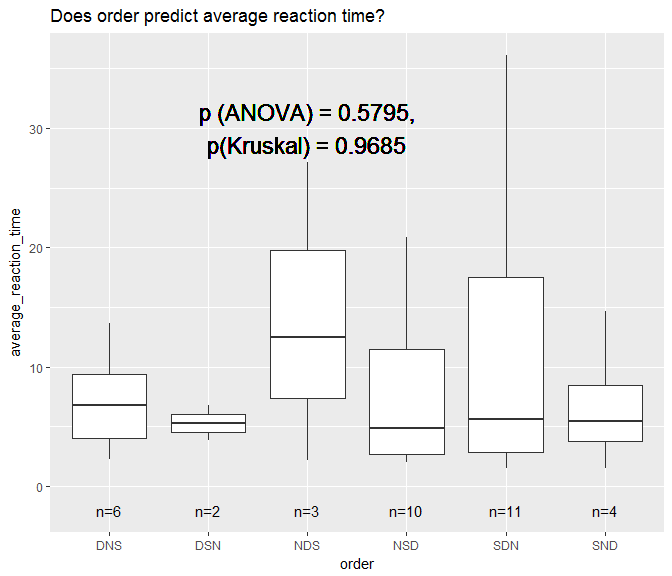


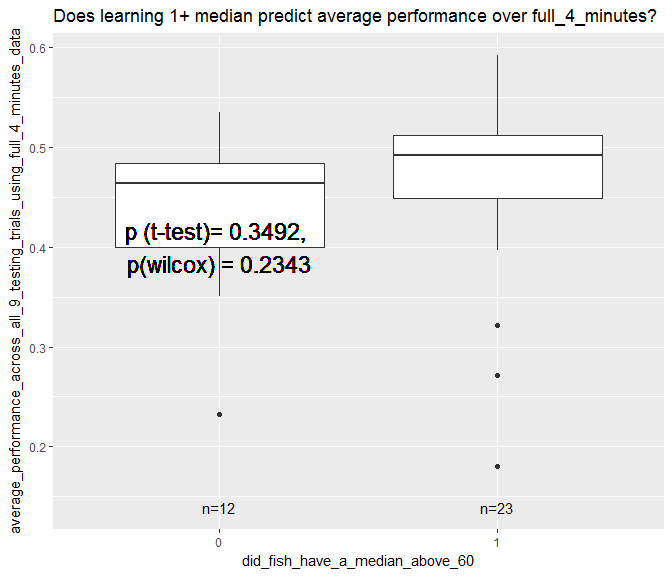


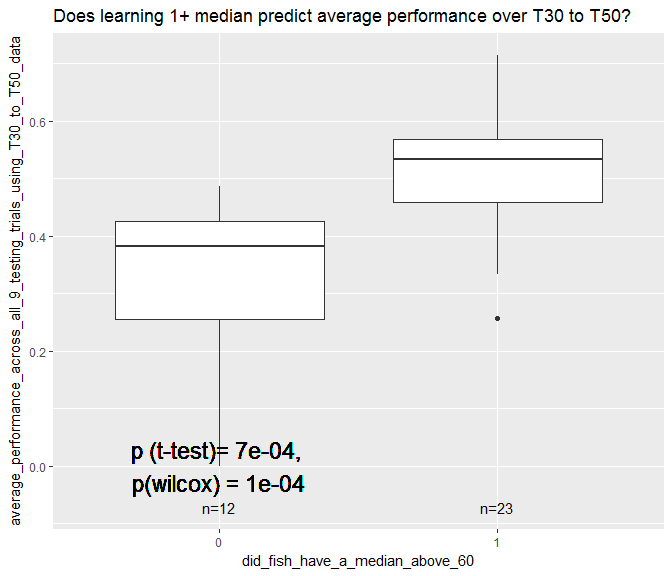


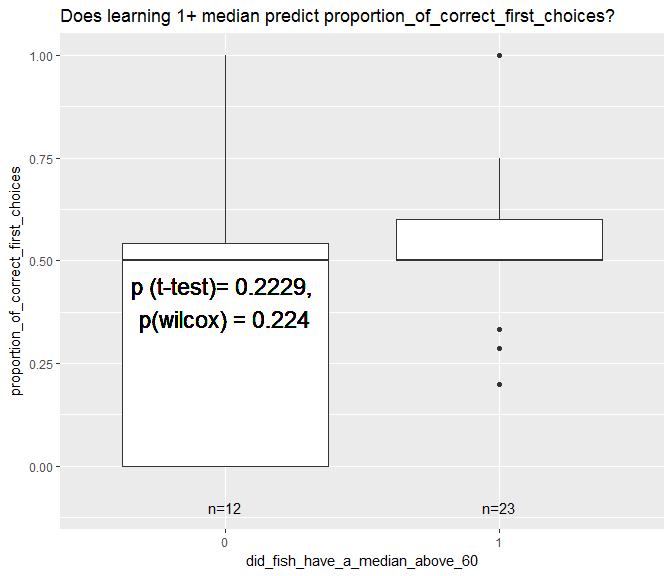


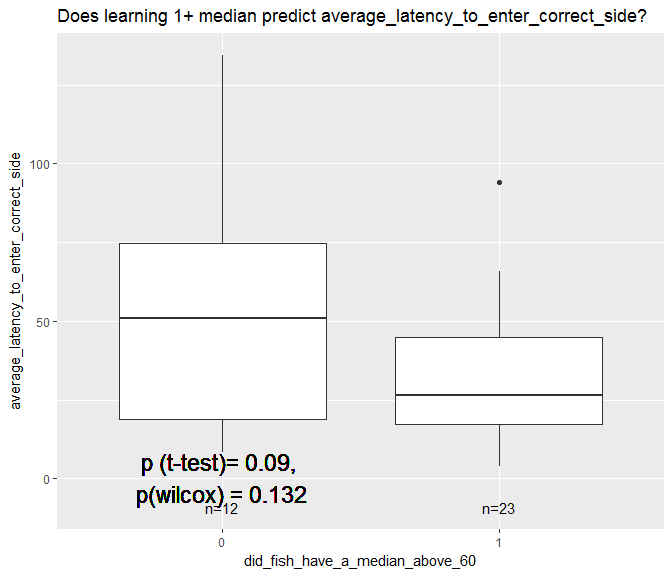


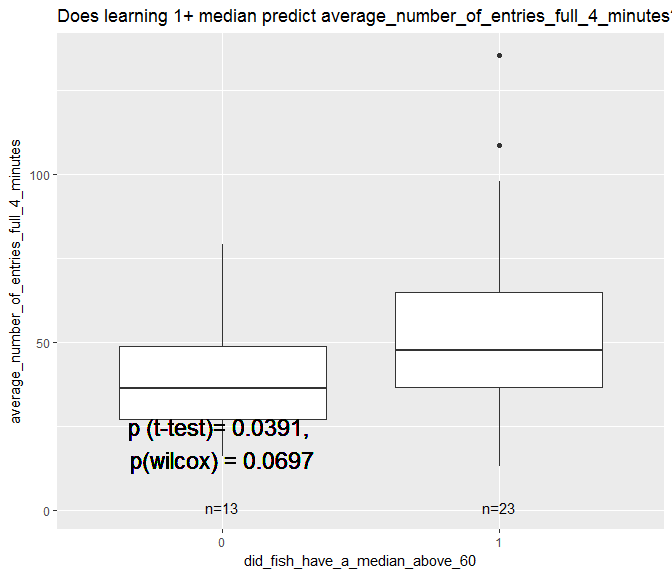


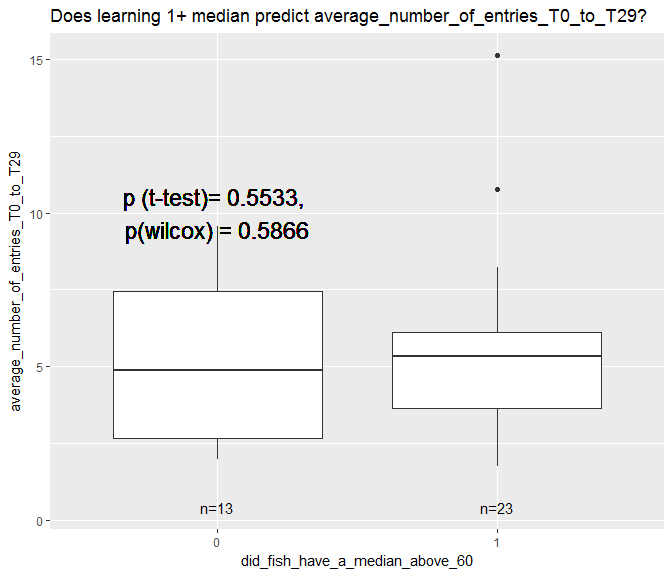


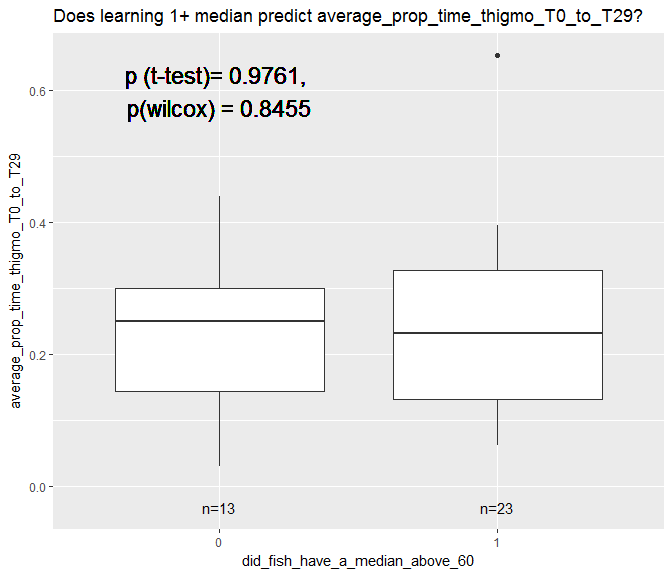


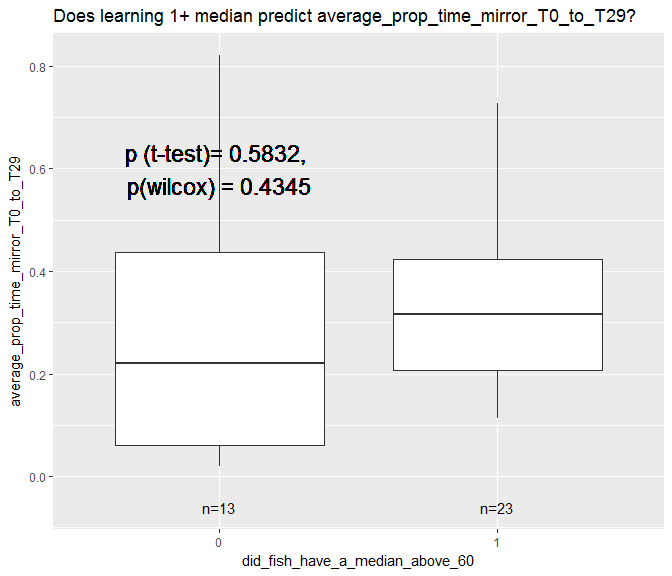


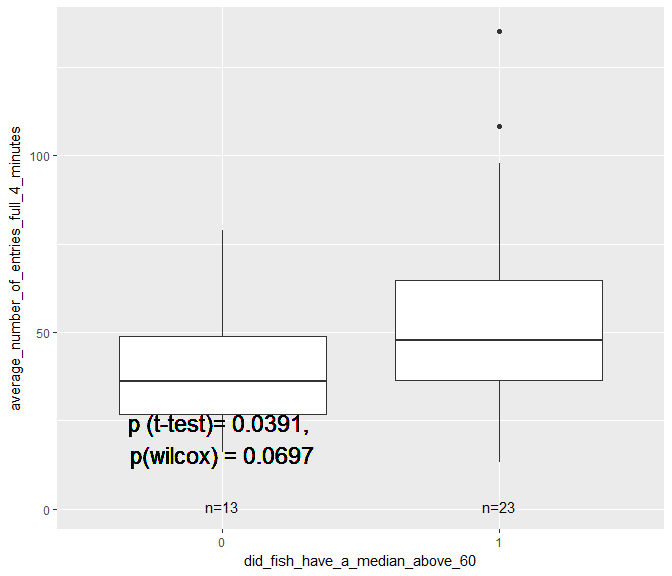
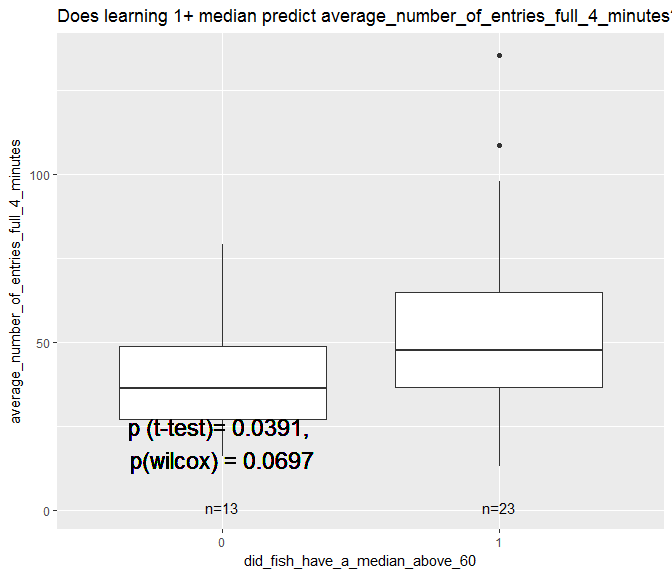


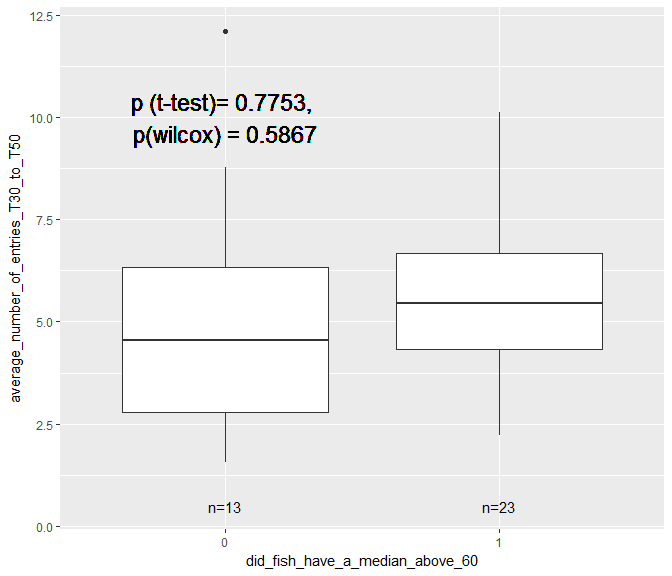
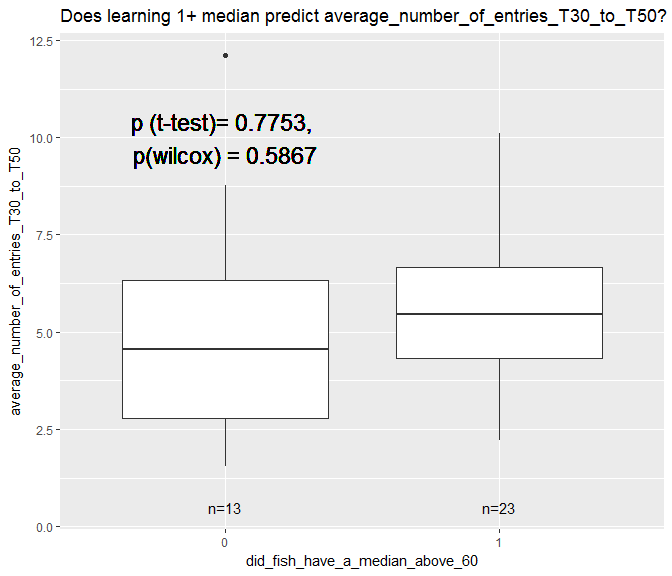












TEMPLATE AGAIN

mod<- lm(dfXXX, na.rm = TRUE) summary(mod)

number <- df %>% filter(!is.na(XXX)) %>% filter(!is.na(XXX)) %>% nrow p\_value <- mod %>% broom::tidy() %>% filter(term != “(Intercept)”) %>% select(p.value) %>% unlist r\_squared <- mod %>% broom::glance() %>% select(r.squared) %>% unlist

p <- ggplot(df, aes(XXX, XXX)) p + geom\_point(size = 4) + theme(text = element\_text(size=10)) + annotate(“text”, x=50, y=0.5, label= glue::glue(“p = {round(p\_value,4)}, R-squared: {round(r\_squared,3)} n = {number}”), size = 6, color = “black”) + labs(x= “XXX”,y=“XXX”) + ggtitle (“XXX”) + geom\_smooth(method = “lm”)

1. See how consistent individuals are across trials within the same individuals (so will have an average repeatibility score?) Performance over the full 4 minutes Performance over T30 to T50 Which side was chosen first

Here’s the column names coming from df.sum:

“fish\_name”  
[2] “sex”  
[3] “standard\_length”  
[4] “order”

[149] “average\_number\_of\_entries\_full\_4\_minutes”  
[150] “average\_reaction\_time”  
[151] “average\_performance\_across\_all\_9\_testing\_trials\_using\_full\_4\_minutes\_data”  
[152] “average\_performance\_across\_all\_9\_testing\_trials\_using\_T30\_to\_T50\_data”  
[153] “total\_number\_of\_testing\_trials\_using\_full\_4\_minutes\_data”  
[154] “total\_number\_of\_testing\_trials\_using\_T30\_to\_T50\_data”  
[155] “number\_of\_trials\_on\_0.50\_ratio\_using\_full\_4\_minutes\_data”  
[156] “number\_of\_trials\_on\_0.67\_ratio\_using\_full\_4\_minutes\_data”  
[157] “number\_of\_trials\_on\_0.75\_ratio\_using\_full\_4\_minutes\_data”  
[158] “number\_of\_trials\_on\_0.50\_ratio\_using\_T30\_to\_T50\_data”  
[159] “number\_of\_trials\_on\_0.67\_ratio\_using\_T30\_to\_T50\_data”  
[160] “number\_of\_trials\_on\_0.75\_ratio\_using\_T30\_to\_T50\_data”  
[161] “median\_performance\_on\_0.50\_ratio\_using\_full\_4\_minutes\_data”  
[162] “median\_performance\_on\_0.67\_ratio\_using\_full\_4\_minutes\_data”  
[163] “median\_performance\_on\_0.75\_ratio\_using\_full\_4\_minutes\_data”  
[164] “median\_performance\_on\_0.50\_ratio\_using\_T30\_to\_T50\_data”  
[165] “median\_performance\_on\_0.67\_ratio\_using\_T30\_to\_T50\_data”  
[166] “median\_performance\_on\_0.75\_ratio\_using\_T30\_to\_T50\_data”  
[167] “number\_of\_medians\_above\_60\_using\_full\_4\_minutes\_data”  
[168] “number\_of\_medians\_above\_60\_using\_T30\_to\_T50\_data”  
[169] “shapiro\_wilk\_test\_p\_value\_using\_full\_4\_minutes\_data”  
[170] “was\_average\_performance\_significantly\_different\_from\_0.5\_full\_4\_minutes\_p\_value\_of\_either\_t\_test\_or\_wilcox”  
[171] “shapiro\_wilk\_test\_p\_value\_using\_T30\_to\_T50\_data”  
[172] “was\_average\_performance\_significantly\_different\_from\_0.5\_T30\_to\_T50\_p\_value\_of\_either\_t\_test\_or\_wilcox”  
[173] “learning\_category\_according\_to\_etheredge\_T30\_to\_T50”  
[174] “learning\_category\_according\_to\_etheredge\_full\_4\_minutes”  
[175] “average\_latency\_to\_enter\_correct\_side”  
[176] “average\_latency\_to\_enter\_incorrect\_side”  
[177] “proportion\_of\_correct\_first\_choices”  
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[5] “Trial\_9\_1\_correctside”  
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[29] “Trial\_9\_3\_latency\_to\_enter\_incorrect\_side”  
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