

# Coding Task Difficulty EDA

*Arunima Kayath, Daniel Rasband, Payman Rhogani*

4/16/2019

## Coding Task Difficulty EDA

```
library(data.table)
library(magrittr)
library(stargazer)

##
## Please cite as:
## Hlavac, Marek (2018). stargazer: Well-Formatted Regression and Summary Statistics Tables.
## R package version 5.2.1. https://CRAN.R-project.org/package=stargazer

Pull in the data.
d <- read.csv("CodingExperimentFinalResults.csv")
dt <- as.data.table(d)
head(dt)

##      subject_id test_set_name   w1_code   w2_code control_first
## 1:             1   Pangolin ENS7D8-DXV 84QT7P-GSC             1
## 2:             2   Platypus EC4GJT-SMK AEEQEN-J2J             0
## 3:             3     Okapi A5QMTE-D2P T6CZBD-HJB             1
## 4:             4     Saiga 9Z5UDF-ZEP 3V4X72-YRF             0
## 5:             5   Armadillo WTC3DJ-RJK 4BENHU-NUN             1
## 6:             6   Cassowary JQHT63-A6A K3H7Q3-DPP             0
##      week1_attempted week2_attempted berkeley_student upwork
## 1:                  1                  1              1      0
## 2:                  1                  1              1      0
## 3:                  1                  1              1      0
## 4:                  1                  1              1      0
## 5:                  1                  1              1      0
## 6:                  1                  1              1      0
##      upwork_20dollars pre_task_control pre_task_treat w1_t1_id w1_t1_mins
## 1:                  0                  1              1      1      5
## 2:                  0                  1              1      1     12
## 3:                  0                  1              1      1     11
## 4:                  0                  1              1      1      8
## 5:                  0                  1              0      1      4
## 6:                  0                  1             -1      1     13
##      w1_t1_score w1_t2_id w1_t2_mins w1_t2_score w1_t3_id w1_t3_mins
## 1:             88        3         14         100        5         12
## 2:             88        3          9         100        5         12
## 3:              0        4         20         100        5          1
## 4:              0        4         10         100        5         14
## 5:              0        3         25         100        6          1
## 6:             77        3          7          80        6          6
##      w1_t3_score w1_t1_t2_mins w1_total_mins w1_score w2_t1_id w2_t1_mins
```

```

## 1:      0      19      31      63      2      11
## 2:      0      21      33      63      2      11
## 3:      0      31      32      33      2      4
## 4:      0      18      32      33      2      4
## 5:      0      29      30      33      2      9
## 6:     33      20      26      63      2     10
##      w2_t1_score w2_t2_id w2_t2_mins w2_t2_score w2_t3_id w2_t3_mins
## 1:      88      4      11      0      6      8
## 2:      88      4      8      100      6     14
## 3:     100      3     28      0      6      1
## 4:      88      3     24      80      6      1
## 5:      88      4     15     100      5      6
## 6:      0      4      7     100      5     14
##      w2_t3_score w2_t1_t2_mins w2_total_mins w2_score years_experience w200
## 1:      0      22      30      59      6      1
## 2:      0      19      33      92      3      1
## 3:      0      32      33      67      4      0
## 4:      0      28      29      85     10      1
## 5:      0      24      30      92      1      1
## 6:     37     17      31      33      0      1
##      w207 w209      first_language test_language_guess team_size  age
## 1:      1      0      python      python      6-10 46-55
## 2:      0      0      r      python      6-10 36-45
## 3:      1      0      stata      python      0 36-45
## 4:      1      0      sql      python     11-20 26-35
## 5:      1      0      python      python      0 46-55
## 6:      0      0 microsoft office 2019      python      0 26-35

```

Get all scores for each task.

```

q1 <- data.table(
  score = dt[week1_attempted == 1, w1_t1_score],
  mins = dt[week1_attempted == 1, w1_t1_mins]
)

q2 <- data.table(
  score = dt[week2_attempted == 1, w2_t1_score],
  mins = dt[week2_attempted == 1, w2_t1_mins]
)

dt[(week2_attempted == 1) & (w2_t2_id == 3), w2_t2_mins]

## [1] 28 24 11 10 9 7 21 8 4 13 7 4 19 6 5 20 9 25 27 20 10 8

q3 <- data.table(
  score = c(
    dt[(week1_attempted == 1) & (w1_t2_id == 3), w1_t2_score],
    dt[(week2_attempted == 1) & (w2_t2_id == 3), w2_t2_score]
  ),
  mins = c(
    dt[(week1_attempted == 1) & (w1_t2_id == 3), w1_t2_mins],
    dt[(week2_attempted == 1) & (w2_t2_id == 3), w2_t2_mins]
  )
)

q4 <- data.table(

```

```

score = c(
  dt[(week1_attempted == 1) & (w1_t2_id == 4), w1_t2_score],
  dt[(week2_attempted == 1) & (w2_t2_id == 4), w2_t2_score]
),
mins = c(
  dt[(week1_attempted == 1) & (w1_t2_id == 4), w1_t2_mins],
  dt[(week2_attempted == 1) & (w2_t2_id == 4), w2_t2_mins]
)
)

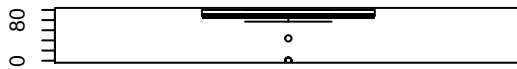
q5 <- data.table(
  score = c(
    dt[(week1_attempted == 1) & (w1_t3_id == 5), w1_t3_score],
    dt[(week2_attempted == 1) & (w2_t3_id == 5), w2_t3_score]
  ),
  mins = c(
    dt[(week1_attempted == 1) & (w1_t3_id == 5), w1_t3_mins],
    dt[(week2_attempted == 1) & (w2_t3_id == 5), w2_t3_mins]
  )
)

q6 <- data.table(
  score = c(
    dt[(week1_attempted == 1) & (w1_t3_id == 6), w1_t3_score],
    dt[(week2_attempted == 1) & (w2_t3_id == 6), w2_t3_score]
  ),
  mins = c(
    dt[(week1_attempted == 1) & (w1_t3_id == 6), w1_t3_mins],
    dt[(week2_attempted == 1) & (w2_t3_id == 6), w2_t3_mins]
  )
)

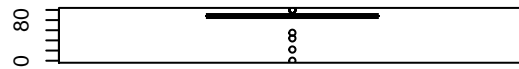
par(mfrow=c(3,2))
boxplot(q1$score, main='Task 1 Scores')
boxplot(q2$score, main='Task 2 Scores')
boxplot(q3$score, main='Task 3 Scores')
boxplot(q4$score, main='Task 4 Scores')
boxplot(q5$score, main='Task 5 Scores')
boxplot(q6$score, main='Task 6 Scores')

```

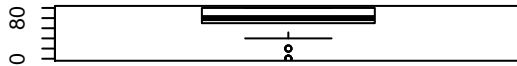
**Task 1 Scores**



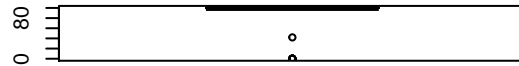
**Task 2 Scores**



**Task 3 Scores**



**Task 4 Scores**



**Task 5 Scores**



**Task 6 Scores**



```
t.test(q1$score, q2$score)
```

```
##
## Welch Two Sample t-test
##
## data: q1$score and q2$score
## t = -0.90302, df = 81.88, p-value = 0.3692
## alternative hypothesis: true difference in means is not equal to 0
## 95 percent confidence interval:
## -15.33173 5.75840
## sample estimates:
## mean of x mean of y
## 80.48000 85.26667
```

```
t.test(q3$score, q4$score)
```

```
##
## Welch Two Sample t-test
##
## data: q3$score and q4$score
## t = -1.2933, df = 91.947, p-value = 0.1992
## alternative hypothesis: true difference in means is not equal to 0
## 95 percent confidence interval:
## -23.55454 4.97653
## sample estimates:
## mean of x mean of y
## 74.58333 83.87234
```

```
t.test(q5$score, q6$score)
```

```
##
## Welch Two Sample t-test
##
```

```
## data: q5$score and q6$score
## t = -1.6233, df = 91.792, p-value = 0.108
## alternative hypothesis: true difference in means is not equal to 0
## 95 percent confidence interval:
## -30.200866 3.036421
## sample estimates:
## mean of x mean of y
## 33.64000 47.22222
t.test(q1$mins, q2$mins)
```

```
##
## Welch Two Sample t-test
##
## data: q1$mins and q2$mins
## t = 1.8655, df = 90.067, p-value = 0.06536
## alternative hypothesis: true difference in means is not equal to 0
## 95 percent confidence interval:
## -0.0871355 2.7715799
## sample estimates:
## mean of x mean of y
## 7.520000 6.177778
t.test(q3$mins, q4$mins)
```

```
##
## Welch Two Sample t-test
##
## data: q3$mins and q4$mins
## t = 1.9195, df = 90.639, p-value = 0.05807
## alternative hypothesis: true difference in means is not equal to 0
## 95 percent confidence interval:
## -0.08547119 4.98174778
## sample estimates:
## mean of x mean of y
## 11.937500 9.489362
t.test(q5$mins, q6$mins)
```

```
##
## Welch Two Sample t-test
##
## data: q5$mins and q6$mins
## t = 1.0891, df = 92.973, p-value = 0.2789
## alternative hypothesis: true difference in means is not equal to 0
## 95 percent confidence interval:
## -1.092398 3.745731
## sample estimates:
## mean of x mean of y
## 10.460000 9.133333
```

## Control for task difficulty

Now I want to look at whether controlling for task difficulty will give me any better results.

## Within-subjects

```
both_attempted <- dt[(week1_attempted == 1) & (week2_attempted == 1)]
both_attempted[, t1t2_control_score := ifelse(
  control_first == 1,
  (w1_t1_score + w1_t2_score) / 2,
  (w2_t1_score + w2_t2_score) / 2)]
both_attempted[, t1t2_treatment_score := ifelse(
  control_first == 1,
  (w2_t1_score + w2_t2_score) / 2,
  (w1_t1_score + w1_t2_score) / 2)]

both_attempted[, t1t2_control_mins := ifelse(control_first==1, w1_t1_t2_mins, w2_t1_t2_mins)]
both_attempted[, t1t2_treatment_mins := ifelse(control_first==1, w2_t1_t2_mins, w1_t1_t2_mins)]

both_attempted[, control_score := ifelse(control_first==1, w1_score, w2_score)]
both_attempted[, treatment_score := ifelse(control_first==1, w2_score, w1_score)]

both_attempted[, control_mins := ifelse(control_first==1, w1_total_mins, w2_total_mins)]
both_attempted[, treatment_mins := ifelse(control_first==1, w2_total_mins, w1_total_mins)]

both_attempted[, score_diff := .(treatment_score - control_score)]
both_attempted[, mins_diff := .(treatment_mins - control_mins)]
both_attempted[, t1t2_score_diff := .(t1t2_treatment_score - t1t2_control_score)]
both_attempted[, t1t2_mins_diff := .(t1t2_treatment_mins - t1t2_control_mins)]

summary(lm(t1t2_score_diff ~ upwork + berkeley_student + years_experience + age, data=both_attempted))

##
## Call:
## lm(formula = t1t2_score_diff ~ upwork + berkeley_student + years_experience +
##     age, data = both_attempted)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -45.515 -18.155   0.575  12.167  39.725
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept)    12.749     9.769   1.305  0.1997
## upwork         6.270     8.508   0.737  0.4657
## berkeley_student -14.206    10.753  -1.321  0.1943
## years_experience  -2.910     1.293  -2.250  0.0303 *
## age26-35         3.957     9.686   0.409  0.6852
## age36-45         4.020    14.205   0.283  0.7787
## age46-55         8.643    20.322   0.425  0.6730
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 22.15 on 38 degrees of freedom
## Multiple R-squared:  0.2023, Adjusted R-squared:  0.07637
## F-statistic: 1.606 on 6 and 38 DF,  p-value: 0.1721
```

```
summary(lm(t1t2_mins_diff ~ upwork + berkeley_student + years_experience + age, data=both_attempted))

##
## Call:
## lm(formula = t1t2_mins_diff ~ upwork + berkeley_student + years_experience +
##     age, data = both_attempted)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -13.425  -4.925   1.566   4.741  15.900
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept)    -0.2415     3.4553  -0.070   0.9446
## upwork           2.9380     3.0092   0.976   0.3351
## berkeley_student -2.6141     3.8031  -0.687   0.4960
## years_experience -1.0875     0.4574  -2.377   0.0226 *
## age26-35         4.1035     3.4259   1.198   0.2384
## age36-45         9.9748     5.0241   1.985   0.0544 .
## age46-55         5.6619     7.1876   0.788   0.4357
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 7.835 on 38 degrees of freedom
## Multiple R-squared:  0.1866, Adjusted R-squared:  0.05814
## F-statistic: 1.453 on 6 and 38 DF,  p-value: 0.2206
```

## Control for task

```
both_attempted[, control_t1_id_1 := ifelse(control_first == 1, 1, 0)]
both_attempted[, control_t2_id_3 := ifelse(
  ((control_first == 1) & (w1_t2_id == 3)) |
  ((control_first == 0) & (w2_t2_id == 3)),
  1, 0)]
both_attempted[, control_t3_id_5 := ifelse(
  ((control_first == 1) & (w1_t3_id == 5)) |
  ((control_first == 0) & (w2_t3_id == 5)),
  1, 0)]
```

```
both_attempted[, .(subject_id, t1t2_score_diff, control_first, 'W1 T1 T2 Score' = (w1_t1_score + w1_t2_score), 'W2 T1 T2 Score' = (w2_t1_score + w2_t2_score))]
```

```
##      subject_id t1t2_score_diff control_first W1 T1 T2 Score W2 T1 T2 Score
## 1:           1         -50.0           1      94.0      44.0
## 2:           2           0.0           0      94.0      94.0
## 3:           3           0.0           1      50.0      50.0
## 4:           4        -34.0           0      50.0      84.0
## 5:           5         44.0           1      50.0      94.0
## 6:           6         28.5           0      78.5      50.0
## 7:           7        -16.0           1     100.0      84.0
## 8:           8        -29.0           0      65.0      94.0
## 9:           9         -6.0           1     100.0      94.0
## 10:          11        -46.0           1     100.0      54.0
```

## 11:	15	-32.5	1	100.0	67.5
## 12:	16	10.0	0	94.0	84.0
## 13:	17	5.5	1	88.5	94.0
## 14:	20	16.0	0	100.0	84.0
## 15:	26	-6.0	0	94.0	100.0
## 16:	29	0.0	1	94.0	94.0
## 17:	30	0.0	0	94.0	94.0
## 18:	31	-16.0	1	100.0	84.0
## 19:	32	6.0	0	100.0	94.0
## 20:	33	4.0	1	90.0	94.0
## 21:	34	-11.0	0	0.0	11.0
## 22:	35	-20.0	1	94.0	74.0
## 23:	36	28.0	0	100.0	72.0
## 24:	37	0.0	1	94.0	94.0
## 25:	38	40.0	0	84.0	44.0
## 26:	39	0.0	1	94.0	94.0
## 27:	40	0.0	0	94.0	94.0
## 28:	41	-6.0	1	100.0	94.0
## 29:	42	40.0	0	84.0	44.0
## 30:	43	-16.0	1	100.0	84.0
## 31:	44	28.5	0	88.5	60.0
## 32:	45	50.0	1	50.0	100.0
## 33:	46	6.0	0	100.0	94.0
## 34:	47	6.0	1	94.0	100.0
## 35:	48	26.0	0	100.0	74.0
## 36:	49	-6.0	1	100.0	94.0
## 37:	50	6.0	0	100.0	94.0
## 38:	51	-40.0	1	94.0	54.0
## 39:	52	30.0	0	94.0	64.0
## 40:	53	6.0	1	94.0	100.0
## 41:	54	-4.0	0	90.0	94.0
## 42:	55	-6.0	1	100.0	94.0
## 43:	56	-18.0	0	72.0	90.0
## 44:	58	-10.0	0	90.0	100.0
## 45:	59	0.0	1	50.0	50.0
##	subject_id t1t2_score_diff control_first W1 T1 T2 Score W2 T1 T2 Score				
##	t1t2_control_score t1t2_treatment_score				
## 1:	94.0	44.0			
## 2:	94.0	94.0			
## 3:	50.0	50.0			
## 4:	84.0	50.0			
## 5:	50.0	94.0			
## 6:	50.0	78.5			
## 7:	100.0	84.0			
## 8:	94.0	65.0			
## 9:	100.0	94.0			
## 10:	100.0	54.0			
## 11:	100.0	67.5			
## 12:	84.0	94.0			
## 13:	88.5	94.0			
## 14:	84.0	100.0			
## 15:	100.0	94.0			
## 16:	94.0	94.0			
## 17:	94.0	94.0			



## 18:	100.0	84.0
## 19:	94.0	100.0
## 20:	90.0	94.0
## 21:	11.0	0.0
## 22:	94.0	74.0
## 23:	72.0	100.0
## 24:	94.0	94.0
## 25:	44.0	84.0
## 26:	94.0	94.0
## 27:	94.0	94.0
## 28:	100.0	94.0
## 29:	44.0	84.0
## 30:	100.0	84.0
## 31:	60.0	88.5
## 32:	50.0	100.0
## 33:	94.0	100.0
## 34:	94.0	100.0
## 35:	74.0	100.0
## 36:	100.0	94.0
## 37:	94.0	100.0
## 38:	94.0	54.0
## 39:	64.0	94.0
## 40:	94.0	100.0
## 41:	94.0	90.0
## 42:	100.0	94.0
## 43:	90.0	72.0
## 44:	100.0	90.0
## 45:	50.0	50.0
##	t1t2_control_score	t1t2_treatment_score

```
model <- lm(t1t2_mins_diff ~ control_t1_id_1 + control_t2_id_3 + berkeley_student + upwork + age + years_exp)
stargazer(model)
```

% Table created by stargazer v.5.2 by Marek Hlavac, Harvard University. E-mail: hlavac at fas.harvard.edu  
 % Date and time: Wed, Apr 17, 2019 - 01:25:51

```
model <- lm(t1t2_score_diff ~ control_t1_id_1 + control_t2_id_3 + berkeley_student + upwork + age + years_exp)
stargazer(model)
```

% Table created by stargazer v.5.2 by Marek Hlavac, Harvard University. E-mail: hlavac at fas.harvard.edu  
 % Date and time: Wed, Apr 17, 2019 - 01:25:55

```
model <- lm(score_diff ~ control_t1_id_1 + control_t2_id_3 + berkeley_student + upwork + age + years_exp)
stargazer(model)
```

% Table created by stargazer v.5.2 by Marek Hlavac, Harvard University. E-mail: hlavac at fas.harvard.edu  
 % Date and time: Wed, Apr 17, 2019 - 01:25:55

```
model <- lm(mins_diff ~ control_t1_id_1 + control_t2_id_3 + berkeley_student + upwork + age + years_exp)
stargazer(model)
```

% Table created by stargazer v.5.2 by Marek Hlavac, Harvard University. E-mail: hlavac at fas.harvard.edu  
 % Date and time: Wed, Apr 17, 2019 - 01:25:55

Table 1:

	<i>Dependent variable:</i>
	t1t2_mins_diff
control_t1_id_1	−2.679 (2.302)
control_t2_id_3	−6.083** (2.393)
berkeley_student	−2.609 (3.560)
upwork	2.072 (2.868)
age26-35	1.539 (3.343)
age36-45	6.335 (4.891)
age46-55	8.394 (6.849)
years_experience	−0.756* (0.447)
Constant	4.624 (3.687)
Observations	45
R <sup>2</sup>	0.327
Adjusted R <sup>2</sup>	0.177
Residual Std. Error	7.324 (df = 36)
F Statistic	2.183* (df = 8; 36)
<i>Note:</i>	*p<0.1; **p<0.05; ***p<0.01

Table 2:

	<i>Dependent variable:</i>
	t1t2_score_diff
control_t1_id_1	-11.638* (6.622)
control_t2_id_3	11.030 (6.881)
berkeley_student	-12.916 (10.240)
upwork	10.061 (8.248)
age26-35	7.510 (9.616)
age36-45	9.149 (14.067)
age46-55	12.205 (19.700)
years_experience	-2.890** (1.285)
Constant	8.434 (10.605)
Observations	45
R <sup>2</sup>	0.317
Adjusted R <sup>2</sup>	0.165
Residual Std. Error	21.066 (df = 36)
F Statistic	2.085* (df = 8; 36)
<i>Note:</i>	*p<0.1; **p<0.05; ***p<0.01

Table 3:

	<i>Dependent variable:</i>
	score_diff
control_t1_id_1	21.426*** (6.841)
control_t2_id_3	7.233 (7.109)
berkeley_student	-16.711 (10.579)
upwork	5.556 (8.520)
age26-35	9.493 (9.934)
age36-45	0.566 (14.532)
age46-55	26.481 (20.351)
years_experience	-3.204** (1.327)
Constant	0.285 (10.956)
Observations	45
R <sup>2</sup>	0.407
Adjusted R <sup>2</sup>	0.276
Residual Std. Error	21.762 (df = 36)
F Statistic	3.093*** (df = 8; 36)
<i>Note:</i>	*p<0.1; **p<0.05; ***p<0.01

Table 4:

	<i>Dependent variable:</i>
	mins_diff
control_t1_id_1	-4.308** (2.068)
control_t2_id_3	-3.712* (2.149)
berkeley_student	-1.496 (3.198)
upwork	0.098 (2.575)
age26-35	1.932 (3.003)
age36-45	0.786 (4.393)
age46-55	5.169 (6.152)
years_experience	-0.153 (0.401)
Constant	4.385 (3.312)
Observations	45
R <sup>2</sup>	0.202
Adjusted R <sup>2</sup>	0.025
Residual Std. Error	6.578 (df = 36)
F Statistic	1.142 (df = 8; 36)
<i>Note:</i>	*p<0.1; **p<0.05; ***p<0.01

## Between Subjects

```
flattened_dt <- data.table(
  subject_id=c(
    both_attempted[, subject_id],
    both_attempted[, subject_id]
  ),
  t1t2_mins=c(
    both_attempted[, w1_t1_t2_mins],
    both_attempted[, w2_t1_t2_mins]
  ),
  t1t2_score=c(
    both_attempted[, (w1_t1_score + w1_t2_score) / 2],
    both_attempted[, (w2_t1_score + w2_t2_score) / 2]
  ),
  total_mins=c(
    both_attempted[, w1_total_mins],
    both_attempted[, w2_total_mins]
  ),
  score=c(
    both_attempted[, w1_score],
    both_attempted[, w2_score]
  ),
  treat=c(
    both_attempted[, abs(control_first - 1)],
    both_attempted[, control_first]
  ),
  upwork=c(both_attempted[, upwork], both_attempted[, upwork]),
  berkeley_student=c(both_attempted[, berkeley_student], both_attempted[, berkeley_student]),
  control_first=c(both_attempted[, control_first], both_attempted[, control_first]),
  years_experience=c(both_attempted[, years_experience], both_attempted[, years_experience]),
  age=c(both_attempted[, age], both_attempted[, age]),
  control_t1_id_1=c(both_attempted[, control_t1_id_1], both_attempted[, control_t1_id_1]),
  control_t2_id_3=c(both_attempted[, control_t2_id_3], both_attempted[, control_t2_id_3]),
  control_t3_id_5=c(both_attempted[, control_t3_id_5], both_attempted[, control_t3_id_5])
)
```

```
between.subjects.lm <- lm(t1t2_score ~ treat + control_t1_id_1 + control_t2_id_3, data=flattened_dt)
stargazer(between.subjects.lm)
```

```
% Table created by stargazer v.5.2 by Marek Hlavac, Harvard University. E-mail: hlavac at fas.harvard.edu
% Date and time: Wed, Apr 17, 2019 - 01:25:55
```

```
between.subjects.mins.lm <- lm(t1t2_mins ~ treat + control_t1_id_1 + control_t2_id_3, data=flattened_dt)
stargazer(between.subjects.mins.lm)
```

```
% Table created by stargazer v.5.2 by Marek Hlavac, Harvard University. E-mail: hlavac at fas.harvard.edu
% Date and time: Wed, Apr 17, 2019 - 01:25:55
```

```
between.subjects.score.all.lm <- lm(t1t2_score ~ treat + control_t1_id_1 + control_t2_id_3 + years_experience, data=flattened_dt)
stargazer(between.subjects.score.all.lm)
```

```
% Table created by stargazer v.5.2 by Marek Hlavac, Harvard University. E-mail: hlavac at fas.harvard.edu
% Date and time: Wed, Apr 17, 2019 - 01:25:55
```

Table 5:

	<i>Dependent variable:</i>
	t1t2_score
treat	0.178 (4.448)
control_t1_id_1	3.722 (4.450)
control_t2_id_3	3.086 (4.450)
Constant	79.709*** (4.474)
Observations	90
R <sup>2</sup>	0.014
Adjusted R <sup>2</sup>	-0.021
Residual Std. Error	21.098 (df = 86)
F Statistic	0.403 (df = 3; 86)
<i>Note:</i>	*p<0.1; **p<0.05; ***p<0.01

Table 6:

	<i>Dependent variable:</i>
	t1t2_mins
treat	-1.333 (1.526)
control_t1_id_1	-0.221 (1.527)
control_t2_id_3	2.461 (1.527)
Constant	17.277*** (1.535)
Observations	90
R <sup>2</sup>	0.038
Adjusted R <sup>2</sup>	0.004
Residual Std. Error	7.240 (df = 86)
F Statistic	1.124 (df = 3; 86)
<i>Note:</i>	*p<0.1; **p<0.05; ***p<0.01

Table 7:

	<i>Dependent variable:</i>
	t1t2_score
treat	0.178 (4.381)
control_t1_id_1	2.263 (4.498)
control_t2_id_3	2.224 (4.430)
years_experience	1.566* (0.802)
upwork	5.778 (5.563)
age	-2.507 (4.013)
berkeley_student	0.483 (7.026)
control_first	
Constant	75.483*** (9.351)
Observations	90
R <sup>2</sup>	0.088
Adjusted R <sup>2</sup>	0.010
Residual Std. Error	20.783 (df = 82)
F Statistic	1.125 (df = 7; 82)
<i>Note:</i>	*p<0.1; **p<0.05; ***p<0.01



```
between.subjects.mins.all.lm <- lm(t1t2_mins ~ treat + control_t1_id_1 + control_t2_id_3 + years_experience,
stargazer(between.subjects.mins.all.lm))
```

% Table created by stargazer v.5.2 by Marek Hlavac, Harvard University. E-mail: hlavac at fas.harvard.edu  
 % Date and time: Wed, Apr 17, 2019 - 01:25:55

Table 8:

	<i>Dependent variable:</i>
	t1t2_mins
treat	-1.333 (1.424)
control_t1_id_1	-0.382 (1.462)
control_t2_id_3	3.079** (1.440)
years_experience	-0.327 (0.261)
upwork	-0.146 (1.808)
age	2.845** (1.305)
berkeley_student	1.821 (2.284)
control_first	
Constant	12.791*** (3.040)
Observations	90
R <sup>2</sup>	0.201
Adjusted R <sup>2</sup>	0.133
Residual Std. Error	6.757 (df = 82)
F Statistic	2.945*** (df = 7; 82)
<i>Note:</i>	*p<0.1; **p<0.05; ***p<0.01