

Příloha 1.

```
# Knihovny

library(ggplot2)
library(dplyr)

# N = 1200
# Skupina: 1 = kontrolní; 2 = body; 3 = žebříčky; 4 = progres
# Míra návratnosti: 0 = nedokončil; 1 = dokončil
# SSRT: reakční čas
# Vnitřní motivace: HS <18;90>

set.seed(123)
attrition <-
  c(
    rep(c(0, 0, 1, 1), 75),
    rep(c(0, 1, 1, 1, 1, 0), 50),
    rep(c(1, 1, 1, 1, 0, 1), 50),
    rep(c(1, 1, 0, 1), 75)
  )

group <-
  as.factor(
    c(
      rep(1, 300),
      rep(2, 300),
      rep(3, 300),
      rep(4, 300)
    )
  )

ssrt <-
  c(
    round(rnorm(300, 285, 65)),
```

```

    round(rnorm(300, 310, 65)),
    round(rnorm(300, 320, 65)),
    round(rnorm(300, 315, 65))
  )
motivation <-
  c(
    round(rnorm(300, 46, 10)),
    round(rnorm(300, 53, 10)),
    round(rnorm(300, 51, 10)),
    round(rnorm(300, 49, 10))
  )

df <- data.frame(
  "skupina" = group,
  "mira_navratnosti" = attrition,
  "ssrt" = ssrt,
  "motivace" = motivation
)

# logistická regrese; míra návratnosti ~ skupina

logistic <- glm(mira_navratnosti ~ skupina, family = "binomial", data = df)
summary(logistic)

prop <- tibble::as_tibble(df) %>%
  group_by(skupina) %>%
  dplyr::summarise(m = mean(mira_navratnosti), sd = sd(mira_navratnosti),
    n = n(), sem = sd/sqrt(n))

ggplot(prop, aes(x = skupina, y = m)) +
  geom_point(fill = "red") +
  coord_cartesian(ylim = c(0,1)) +
  ylab("Pravděpodobnost dokončení") +

```

```

scale_x_discrete(labels=c("1" = "Kontrolní",
                          "2" = "Body",
                          "3" = "Žebříčky",
                          "4" = "Progres")) +
theme_classic()

# lineární regrese; SSRT ~ skupina

linear1 <- lm(ssrt ~ skupina, df)
summary(linear1)

ggplot(df, aes(x = skupina, y = ssrt, fill = skupina)) +
  geom_violin(draw_quantiles = c(.25, .5, .75)) +
  ylab("SSRT (ms)") +
  scale_fill_manual(values=c "gray90",
                   "gray75",
                   "gray60",
                   "gray45"),
  labels = c(
    "Kontrolní",
    "Body",
    "Žebříčky",
    "Progres"),
  name = "Skupina") +
theme_classic() +
theme(axis.title.x = element_blank(),
      axis.text.x = element_blank(),
      axis.ticks = element_blank(),
      text = element_text(size=20))

```

```

# lineární regrese; Motivace ~ skupina

```

```

linear2 <- lm(motivace ~ skupina, df)

```

```
summary(linear2)
```

```
ggplot(df, aes(x = skupina, y = motivace, fill = group)) +  
  geom_violin(draw_quantiles = c(.25, .5, .75)) +  
  ylab("Vnitřní motivace (HS)") +  
  scale_fill_manual(values=c("gray90",  
                             "gray75",  
                             "gray60",  
                             "gray45"),  
                   labels = c(  
                     "Kontrolní",  
                     "Body",  
                     "Žebříčky",  
                     "Progres"),  
                   name = "Skupina") +  
  theme_classic() +  
  theme(axis.title.x = element_blank(),  
        axis.text.x = element_blank(),  
        axis.ticks = element_blank(),  
        text = element_text(size=20))
```