

SCED

Vignette

Ian Hussey

```
# dependencies
library(SCED)
library(knitr)
library(tidyverse)

# dependencies required by SCED
library(broom)
library(coin)
library(survival)
library(effsize)
library(bootES)
library(boot)
library(stringr)
library(timesavers) # from github/ianhussey

# disable scientific notation
options(scipen = 999)
```

Simulate two participants

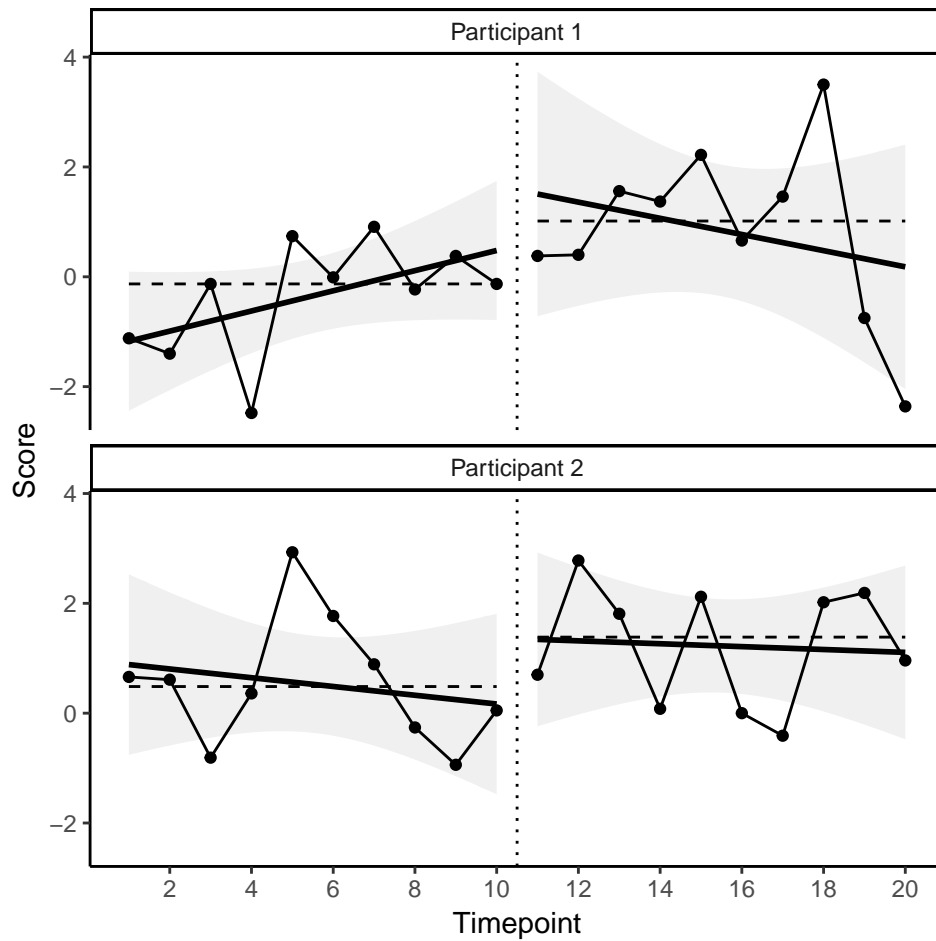
```
# simulate data
data <- simulate_data(participants = 2, # two participants
                      timepoints_a = 10, # 10 timepoints pre
                      timepoints_b = 10, # 10 post intervention
                      cohens_d = 1.5) %>% # Cohen's d = 1.5
  mutate(Participant = paste("Participant", Participant))

# analyse
results <- sced_analysis(data = data)

# summarise results in a table
sced_summary(results = results) %>%
  kable()
```

Participant	Median difference	Ruscio's A	Hedges' g	p
Participant 1	1.145	0.783 [0.526, 0.97]	0.84 [-0.21, 1.83]	0.06490
Participant 2	0.900	0.697 [0.427, 0.92]	0.59 [-0.39, 1.54]	0.18469

```
# plot
sced_plot(data = data)
```



Use in-built dataset that's a little more complex

```
# analyse
results <- sced_analysis(data = simulated_data)

# summarise results in a table
sced_summary(results = results) %>%
  kable()
```

Participant	Median difference	Ruscio's A	Hedges' g	p
1	1.81	0.807 [0.562, 0.974]	1.04 [-0.03, 2.13]	0.01174
2	2.42	0.895 [0.68, 1]	1.89 [0.67, 3.2]	0.00001
3	1.59	0.923 [0.796, 0.99]	1.71 [1.01, 2.37]	0.00003
4	1.67	0.845 [0.672, 0.968]	1.16 [0.18, 2.01]	0.00269
5	2.75	0.967 [0.875, 1]	2.17 [1.38, 2.95]	< .00001
6	2.15	0.952 [0.851, 1]	2.17 [1.25, 3.21]	0.00001

```
# plot
sced_plot(data = simulated_data)
```

