Package 'dumbbell'

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Type Package

Title Displaying Changes Between Two Points Using Dumbbell Plots

Version 0.1

Author Foo Cheung

Maintainer Foo Cheung <foocheung@yahoo.com>

Description Creates a Dumbbell Plot.

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Encoding UTF-8

LazyData true

Imports dplyr,tidyr, tidyverse, ggplot2, rlang, utils, data.table, rstatix

URL https://github.com/foocheung2/dumbbell

NeedsCompilation no

RoxygenNote 7.1.1

Collate 'global.R' 'dumbbell.R'

Suggests knitr, rmarkdown

VignetteBuilder knitr

Repository CRAN

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R topics documented:

dumbbell *Dumbbell Plot*

Description

Draws a Dumbbell Plot, essentially a dot plot with two series of data.

Usage

```
dumbbell(
  xdf,
  id,
  key,
  column1,
  column2,
  lab1,
  lab2,
  title,
  pointsize,
  textsize,
  segsize,
  expandx,
  expandy,
  p_col1,
  p_col2,
  leg,
  col_seg1,
  col_seg2,
  col_lab1,
  col_lab2,
  pt_alpha,
  arrow_size,
  arrow,
  pt_val,
  delt,
  pval
)
```

Arguments

xdf	data a data frame, xdf= data frame A data frame containing at least four columns corresponding, respectively, to (1) the first variable containing the "id", (2) the second variable containing the "key" , (3) the third variable containing the start of the point "column1", the first data series, (4) the fourth variable containing the end of the point "column2", the second data series
id	is the name of the column containing the id variable which will label the y axis eg(subject1,subject2 etc) eg id = "id"

key	is the name of the column containing the key variable telling us which measure we use in each row eg key = "key"
column1, column2	first and second series of data eg column1 = "Control" column2 = "Test"
lab1, lab2	labels for data series eg lab1 = "Test" lab2 = "Control"
title	Adds title to the plot eg title = "This is a plot title"
pointsize	Adds pointsize to the points eg pointsize = 3
textsize	numeric value specifying the text size eg textsize = 3
segsize	numeric value specifying the segment width eg segsize = 1
expandx	Add space to the both ends of the x axis eg expandx = 0.6
expandy	Add space to the both ends of the y axis eg expandy = 1
p_col1, p_col2	colors for start and end points eg pcol1 = "red"
leg	Add legend title legend = "legend title"
col_seg1, col_seg2	Adds a color to each arrow in each direction eg col_seg1 = "red"
col_lab1, col_lab2	color text below each dumbell eg col_lab1 = "red"
pt_alpha	Add transparentcy to points pt_alpha = 0.6
arrow_size	Add size to arrows arrow_size = 0.2
arrow	Adds an arrow to one end of the dumbbell eg arrow = 1
pt_val	Add option to show the point values eg pt_val = 1
delt	Add a delta column to the plot eg delt = 1
pval	Adds pvalue to the facet label, from using a wilcox paired test eg pval = 1 or a paired t_test eg pval = 2 (requires to use facet_wrap).

Value

Dumbbell plot

Author(s)

Foo Cheung, <foocheung@yahoo.com>

Examples

```
library(tidyverse)
library(ggplot2)
library(rlang)
library(utils)
library(data.table)
library(dumbbell)
## create data
z<-data.frame(Group = c(rep("A",20),rep("B",20)),
              #  Subject = c(paste("sub_",1:20,sep=""),paste("sub_",1:20,sep="")),
              Subject = c(paste(1:20,sep=""),paste(1:20,sep="")),
```

```
                result = c(sample(1:100000, 40, replace=TRUE)),
                analysis = c(rep("a",10),rep("b",10) ,rep("b",10),rep("a",10) )

)

b<-z %>% filter(Group == 'A')
c<-z %>% filter(Group == 'B')

d<-merge(b,c, by.x="Subject", by.y = "Subject")


e<-d %>% mutate("diff"=result.x-result.y) %>% arrange(diff)




d$Subject<-factor(d$Subject, levels = e$Subject)


## Basic plot
dumbbell(xdf=d,id= "Subject",key="analysis.x",column1 = "result.x",column2 = "result.y")
```

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