Package 'dumbbell'

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Type Package

Title Displaying Changes Between Two Points Using Dumbbell Plots

Version 0.1

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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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Contents

`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)

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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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