Chapter 2 Examples Scatterplot

This document is derived from a .Rmd notebook entitled “BlandAltman\_stutter\_analysis\_EFM\_likeLTD.Rmd” last saved on 2021.05.30. That original notebook documented the code for performing a Bland-Altman analysis of two methods, and preparing graphs illustrating the results. For the purpose of this notebook, however, the code used for a scatterplot analysis is used to illustrate the creation of a scatterplot for Chapter 2 of the dissertation.

knitr::opts\_chunk$set(  
 echo = FALSE,  
 message = FALSE,  
 results = FALSE  
)  
  
library(tidyverse)

## ── Attaching packages ─────────────────────────────────────── tidyverse 1.3.2 ──  
## ✔ ggplot2 3.4.0 ✔ purrr 1.0.1  
## ✔ tibble 3.1.8 ✔ dplyr 1.1.0  
## ✔ tidyr 1.2.1 ✔ stringr 1.5.0  
## ✔ readr 2.1.3 ✔ forcats 0.5.2  
## ── Conflicts ────────────────────────────────────────── tidyverse\_conflicts() ──  
## ✖ dplyr::filter() masks stats::filter()  
## ✖ dplyr::lag() masks stats::lag()

library(blandr) # required for calculating the Bland-Altman stats function, which calculates the difference, mean, and confidence intervals used in all BA plots  
library(BlandAltmanLeh) # required for the customized BA function that I wrote (baPlotKPI), called from source below.  
library(ggthemes) # required for the use of some plot themes, here 'stata' theme  
library(ggExtra) # required for ggmarginal if used.   
library(cowplot) # required for some plotting parameters; here panel\_border and ggsave2

##   
## Attaching package: 'cowplot'  
##   
## The following object is masked from 'package:ggthemes':  
##   
## theme\_map

library(captioner) # required to caption figures and tables; the fig\_nums and table\_nums in this setup chunk is part of captioner  
library(zeallot) # Used to unpack a list; needed for the Price-Fischer analysis  
library(kableExtra)

## Warning in !is.null(rmarkdown::metadata$output) && rmarkdown::metadata$output  
## %in% : 'length(x) = 2 > 1' in coercion to 'logical(1)'

##   
## Attaching package: 'kableExtra'  
##   
## The following object is masked from 'package:dplyr':  
##   
## group\_rows

library(ggpirate) # Used for creating pirateplots with more descriptive statistical information.   
library(beanplot) # Used for creating beanplots; used here as a split bean  
  
source("/Volumes/InmanDrive4/Dropbox/Dropbox/KPI/University\_of\_Dundee/Dissertation/Lab Notebooks/library.R")  
  
#fig\_nums <- captioner(prefix = "\*\*Figure\*\*")  
# table\_nums <- captioner(prefix = "\*\*Table\*\*")

## Warning: Using `size` aesthetic for lines was deprecated in ggplot2 3.4.0.  
## ℹ Please use `linewidth` instead.

