```
In [2]:   import pandas as pd
          import seaborn as sns
          import os
          import matplotlib.pyplot as plt
          #sns.set(style="darkgrid")
          #sns.set(style="whitegrid")
          #sns.set_style("white")
          sns.set(style="whitegrid",font_scale=2)
          import matplotlib.collections as clt
          import ptitprince as pt
```

```
In [4]:   df = pd.read_csv(r'C:\Users\giral\OneDrive\Documentos\Master_Ciencias_de_Datos\Visualizacion\PEC2\simdat.csv', sep= ",")
          df.head()
```

Out[4]:

	Unnamed: 0	group	score	gr2
0	1	Group1	34.318801	high
1	2	Group1	40.113776	high
2	3	Group1	93.387266	high
3	4	Group1	46.235969	high
4	5	Group1	47.537756	high

```
In [18]:  # plotting the clouds
          dy="group"; dx="score"; ort="h"; pal = sns.color_palette(n_colors=1)
          f, ax = plt.subplots(figsize=(7, 5))
          ax=pt.half_violinplot( x = dx, y = dy, data = df, palette = pal, bw = .2, cut = 0.,
                                 scale = "area", width = .6, inner = None, orient = ort)
          plt.title("Figure P2\n Basic Rainclouds")
```

Out[18]: Text(0.5, 1.0, 'Figure P2\n Basic Rainclouds')
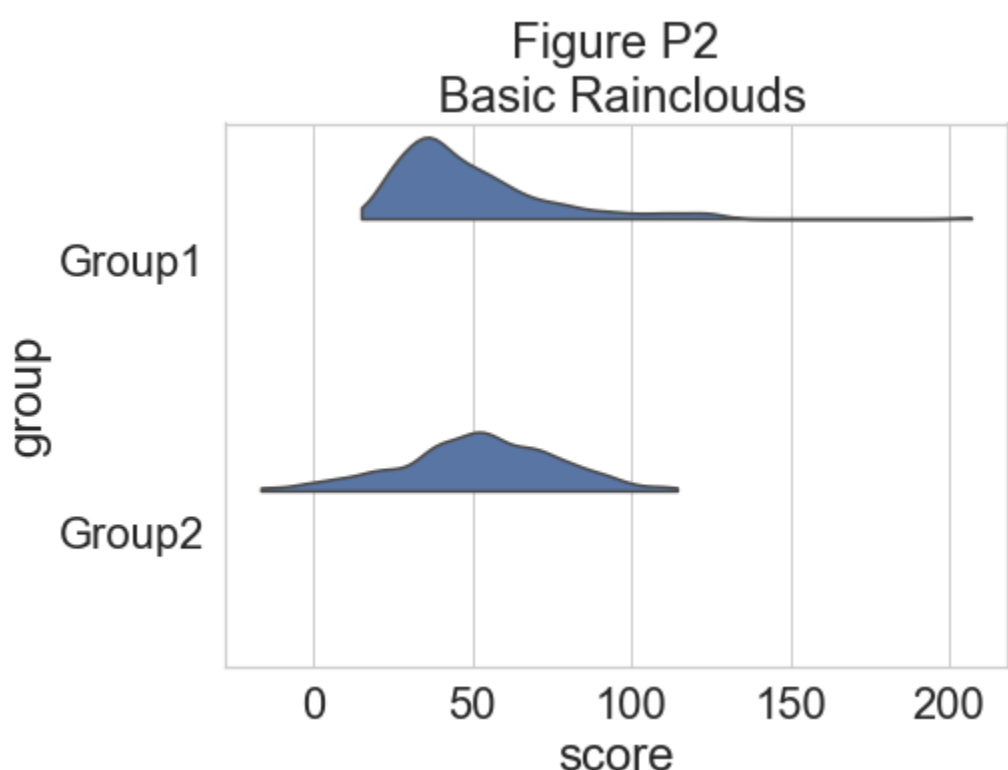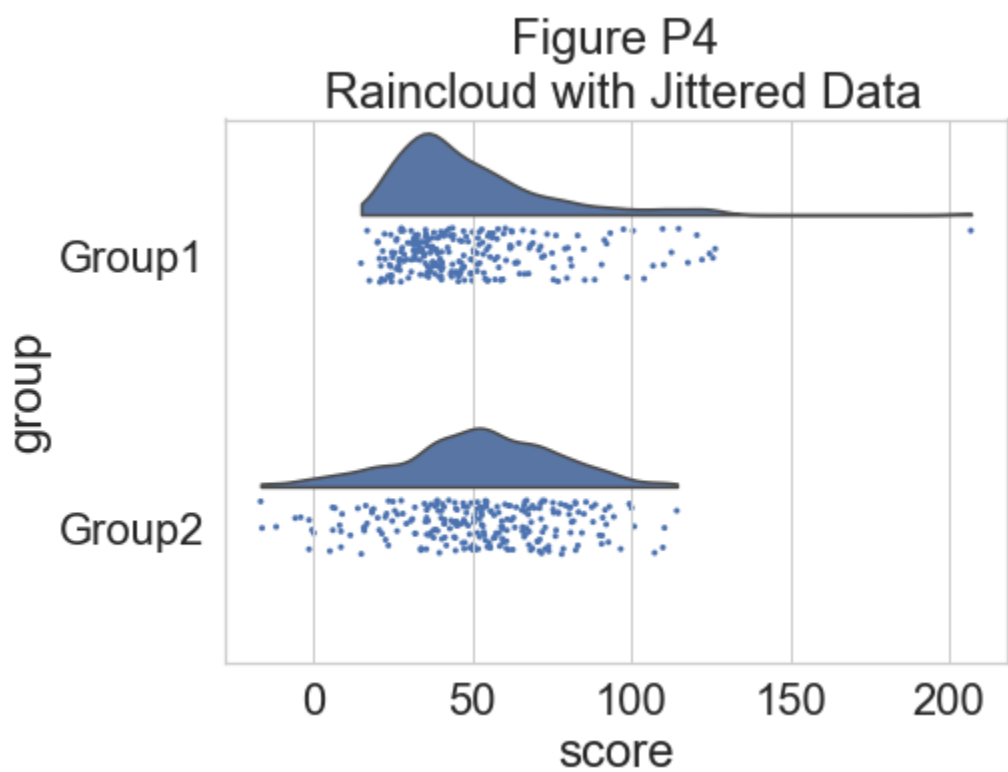


```
In [19]:  # adding the rain
          f, ax = plt.subplots(figsize=(7, 5))
          ax=pt.half_violinplot( x = dx, y = dy, data = df, palette = pal, bw = .2, cut = 0.,
          scale = "area", width = .6, inner = None, orient = ort)
          ax=sns.stripplot( x = dx, y = dy, data = df, palette = pal, edgecolor = "white",
          size = 3, jitter = 0, zorder = 0, orient = ort)
          plt.title("Figure P3\n Raincloud Without Jitter")
```

Out[19]: Text(0.5, 1.0, 'Figure P3\n Raincloud Without Jitter')
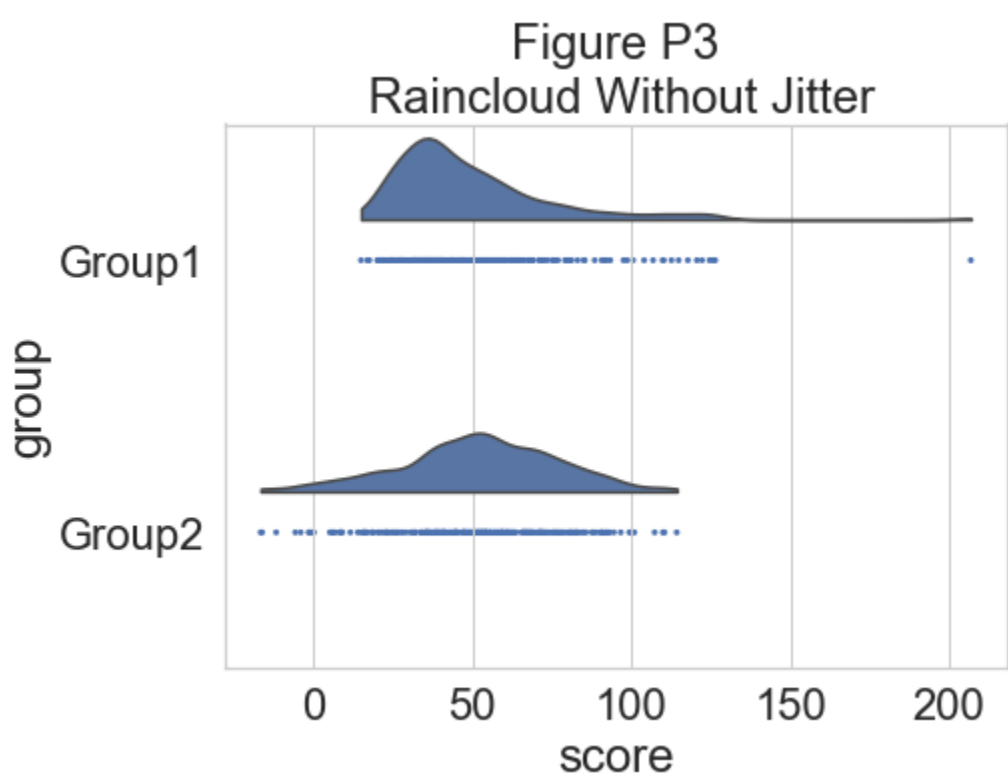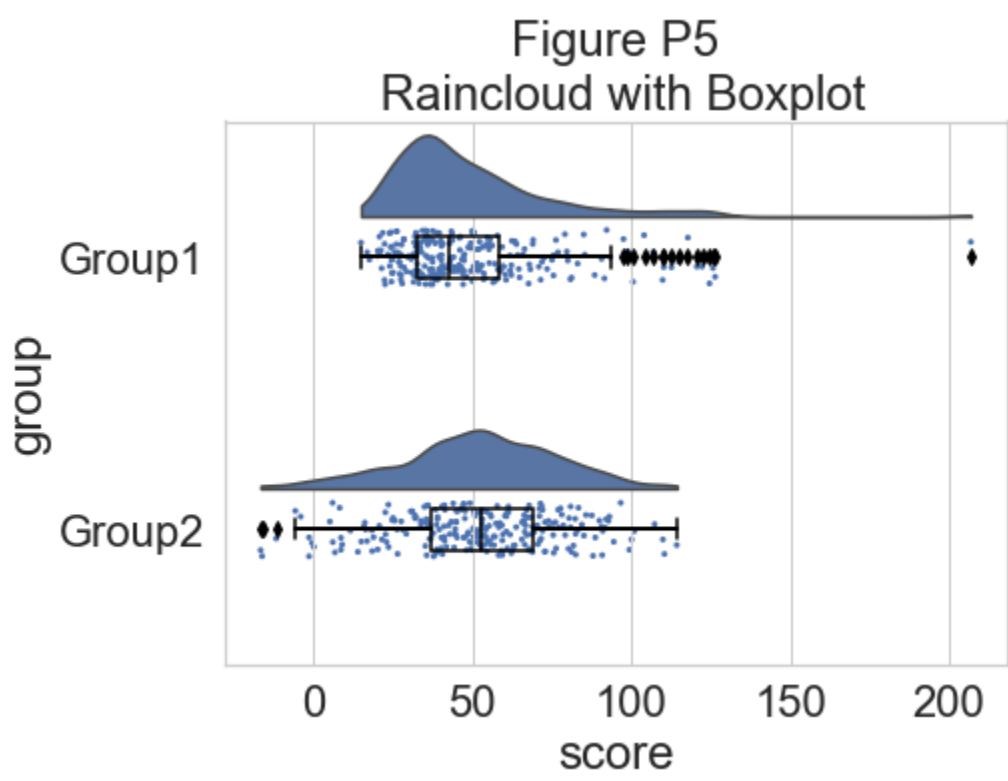


```
In [20]:  # adding jitter to the rain
          f, ax = plt.subplots(figsize=(7, 5))
          ax=pt.half_violinplot( x = dx, y = dy, data = df, palette = pal, bw = .2, cut = 0.,
          scale = "area", width = .6, inner = None, orient = ort)
          ax=sns.stripplot( x = dx, y = dy, data = df, palette = pal, edgecolor = "white",
          size = 3, jitter = 1, zorder = 0, orient = ort)
          plt.title("Figure P4\n Raincloud with Jittered Data")
```

Out[20]: Text(0.5, 1.0, 'Figure P4\n Raincloud with Jittered Data')
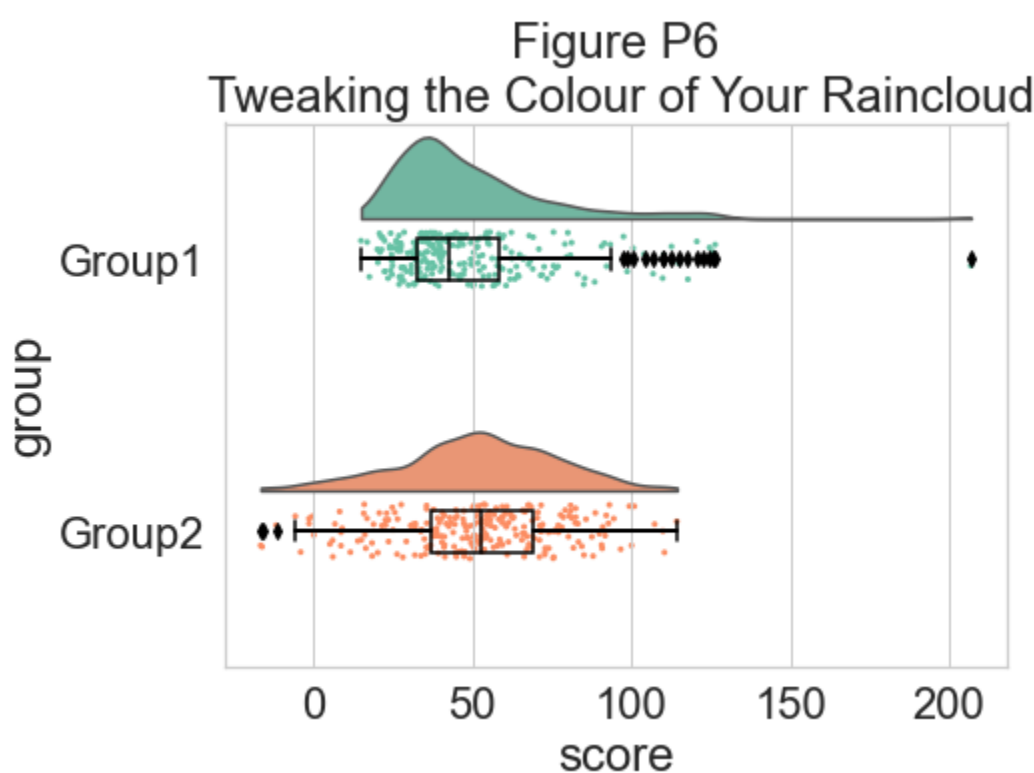


```
In [21]:  #adding the boxplot with quartiles
          f, ax = plt.subplots(figsize=(7, 5))
          ax=pt.half_violinplot( x = dx, y = dy, data = df, palette = pal, bw = .2, cut = 0.,
          scale = "area", width = .6, inner = None, orient = ort)
          ax=sns.stripplot( x = dx, y = dy, data = df, palette = pal, edgecolor = "white",
          size = 3, jitter = 1, zorder = 0, orient = ort)
          ax=sns.boxplot( x = dx, y = dy, data = df, color = "black", width = .15, zorder = 10,\
          showcaps = True, boxprops = {'facecolor':'none', "zorder":10},\
          showfliers=True, whiskerprops = {'linewidth':2, "zorder":10},\
          saturation = 1, orient = ort)
          plt.title("Figure P5\n Raincloud with Boxplot")
```

Out[21]: Text(0.5, 1.0, 'Figure P5\n Raincloud with Boxplot')


```
In [22]:  #adding color
          pal = "Set2"
          f, ax = plt.subplots(figsize=(7, 5))
          ax=pt.half_violinplot( x = dx, y = dy, data = df, palette = pal, bw = .2, cut = 0.,
          scale = "area", width = .6, inner = None, orient = ort)
          ax=sns.stripplot( x = dx, y = dy, data = df, palette = pal, edgecolor = "white",
          size = 3, jitter = 1, zorder = 0, orient = ort)
          ax=sns.boxplot( x = dx, y = dy, data = df, color = "black", width = .15, zorder = 10,\
          showcaps = True, boxprops = {'facecolor':'none', "zorder":10},\
          showfliers=True, whiskerprops = {'linewidth':2, "zorder":10},\
          saturation = 1, orient = ort)
          plt.title("Figure P6\n Tweaking the Colour of Your Raincloud")
```

Out[22]: Text(0.5, 1.0, 'Figure P6\n Tweaking the Colour of Your Raincloud')

In [ ]: