World University Ranking 2022

修改部分

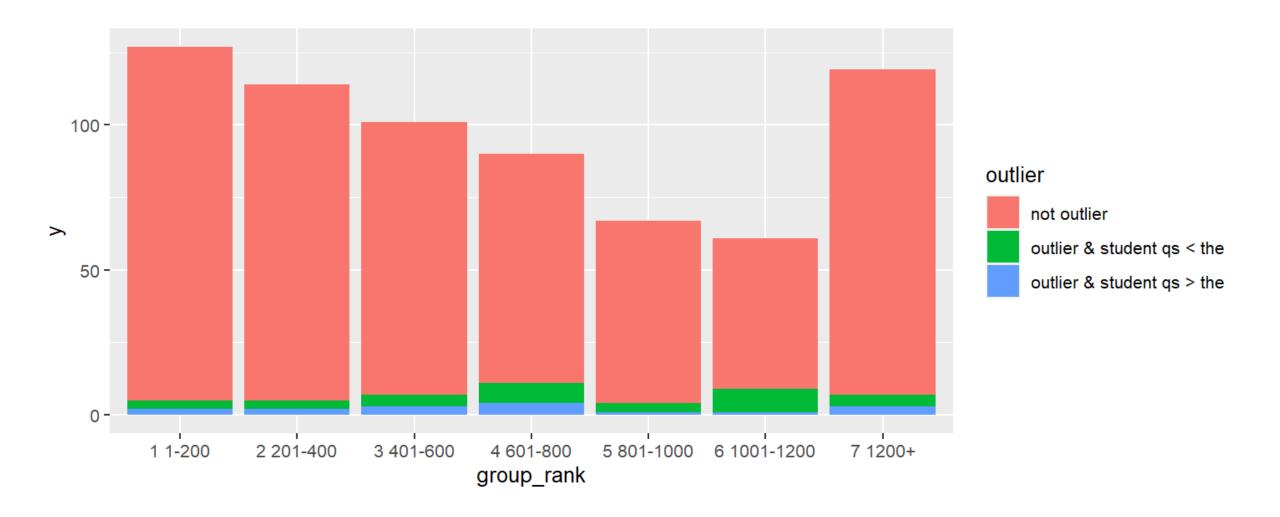
- 抓全部資料
- 以排名區間、排名上升下降、洲分組
- transform

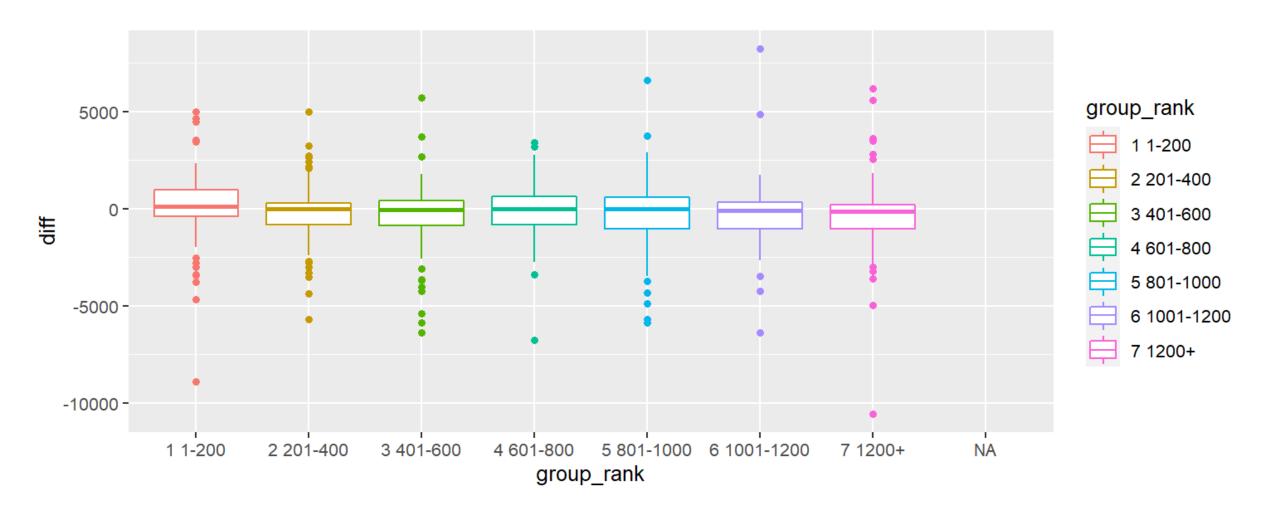
判斷方式

- diff = No. of Students for QS No. of Students for THE
- pdiff = diff / average(No. of Students for QS + No. of Students for THE)
- 篩離群值、判斷有沒有作弊

排名區間

- 1-200
- 201-400
- 401-600
- 601-800
- 801-1000
- 1001-1200
- 1200+





with outlier

```
Df Sum Sq Mean Sq F value Pr(>F)
group_rank 6 9.144e+08 152402884 2.251 0.0369 *
Residuals 672 4.549e+10 67694789
```

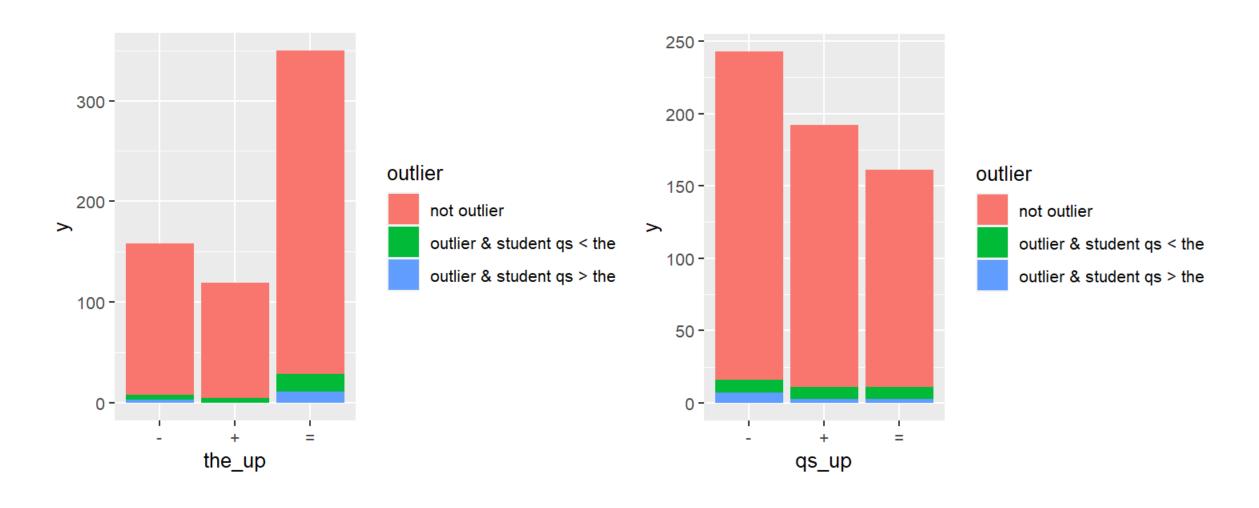
```
Df Sum Sq Mean Sq F value Pr(>F) group_rank 6 2.111e+07 3517978 1.132 0.342 Residuals 624 1.939e+09 3107757
```

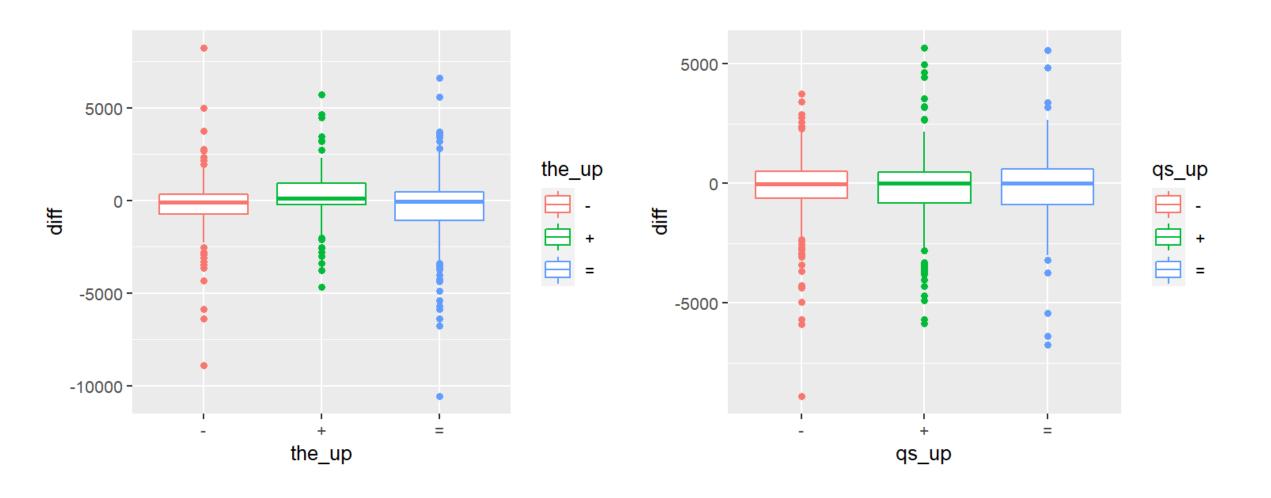
- --- 1 1-200 ---
- Number of university: 127
- Mean of "diff": 116.378
- Number of students of qs > the
- se of "diff": 207.2454
- p-value of t test if diff of "1 1-200" = 0:0.3414
- p-value of t test if pdiff of "1 1-200" = 0: 0.2787
- --- 2 201-400 ---
- Number of university: 114
- Mean of "diff": -190.7281
- Number of students of qs < the
- se of "diff": 203.7091
- p-value of t test if diff of "2 201-400" = 0: 0.1428
- p-value of t test if pdiff of "2 201-400" = 0: 0.1697
- --- 3 401-600 ---
- Number of university: 101
- Mean of "diff": -141.4752
- Number of students of qs < the
- se of "diff": 314.7755
- p-value of t test if diff of "3 401-600" = 0: 0.0515*
- p-value of t test if pdiff of "3 401-600" = 0: 0.1905

- --- 4 601-800 ---
- Number of university: 90
- Mean of "diff": -892.7556
- Number of students of qs < the
- se of "diff": 638.2833
- p-value of t test if diff of "4601-800" = 0: 0.6783
- p-value of t test if pdiff of "4601-800" = 0: 0.8994
- --- 5 801-1000 ---
- Number of university: 67
- Mean of "diff": -3100.597
- Number of students of qs < the
- se of "diff": 2605.947
- p-value of t test if diff of "5 801-1000" = 0: 0.2576
- p-value of t test if pdiff of "5 801-1000" = 0: 0.1428
- --- 6 1001-1200 ---
- Number of university: 61
- Mean of "diff": -2953.279
- Number of students of qs < the
- se of "diff": 1509.533
- p-value of t test if diff of "6 1001-1200" = 0: 0.2869
- p-value of t test if pdiff of "6 1001-1200" = 0: 0.1132

- --- 7 1200+ ---
- Number of university: 119
- Mean of "diff": 64.7395
- Number of students of qs > the
- se of "diff": 341.2634
- p-value of t test if diff of "7 1200+" = 0: 0.0663*
- p-value of t test if pdiff of "7 1200+" = 0: 0.0102*

排名上升或下降





with outlier

- --- + ---
- Number of university: 192
- Mean of "diff": 294.8229
- Number of students of qs < the
- se of "diff": 200.3048
- p-value of t test if diff of "+" = 0: 0.143
- p-value of t test if pdiff of "+" = 0: 0.0458*

- ___ _
- Number of university: 243
- Mean of "diff": 507.5597
- Number of students of qs < the
- se of "diff": 265.1523
- p-value of t test if diff of "-" = 0:0.0329*
- p-value of t test if pdiff of "-" = 0: 0.1865

- --- = ---
- Number of university: 161
- Mean of "diff": 1589.876
- Number of students of qs < the
- se of "diff": 1124.421
- p-value of t test if diff of "=" = 0:0.204
- p-value of t test if pdiff of "=" = 0: 0.2025