# Hypothese 3

## Silas Nöttling & Maximilian Kuttner 14 4 2020

### Deskriptive Statistik - Einzelflüge

## DESCRIPTIVES ##  ## Descriptives ## ## Preis Device ## ## N 40 40 ## Missing 0 0 ## Mean 97.8 ## Median 88.0 ## Standard deviation 15.3 ## Minimum 87.0 ## Maximum 141 ##	шш		
## ## Descriptives ##	## DECCRIPTIVES		
## Descriptives ## ## Preis Device ## ## N 40 40 ## Missing 0 0 ## Mean 97.8 ## Median 88.0 ## Standard deviation 15.3 ## Minimum 87.0 ## Maximum 141 ## ## ## ## \$`Flug: Berlin-AUA` ## ## DESCRIPTIVES ##			
##			
## Preis Device  ##  ## N 40 40  ## Missing 0 0  ## Mean 97.8  ## Median 88.0  ## Standard deviation 15.3  ## Minimum 87.0  ## Maximum 141  ##  ##  ##  ##  ##  ##  ##  DESCRIPTIVES  ##			
## N 40 40 ## Missing 0 0 ## Mean 97.8 ## Median 88.0 ## Standard deviation 15.3 ## Minimum 87.0 ## Maximum 141 ##		Preis	Device
## Missing 0 0 ## Mean 97.8 ## Median 88.0 ## Standard deviation 15.3 ## Minimum 87.0 ## Maximum 141 ##	##		
## Mean 97.8  ## Median 88.0  ## Standard deviation 15.3  ## Minimum 87.0  ## Maximum 141  ##	## N	40	40
## Median 88.0  ## Standard deviation 15.3  ## Minimum 87.0  ## Maximum 141  ##	## Missing	0	0
## Standard deviation 15.3  ## Minimum 87.0  ## Maximum 141  ##	## Mean	97.8	
## Minimum 87.0  ## Maximum 141  ##  ##  ##  ##  ##  ##  DESCRIPTIVES  ##	## Median	88.0	
## Maximum 141 ## ## ## ## ## ## \$`Flug: Berlin-AUA` ## ## DESCRIPTIVES ##	## Standard deviation	15.3	
## ## ## *\Flug: Berlin-AUA\ ## DESCRIPTIVES ##	## Minimum	87.0	
<pre>## ## ## \$`Flug: Berlin-AUA` ## ## DESCRIPTIVES ##</pre>	## Maximum	141	
<pre>## ## \$`Flug: Berlin-AUA` ## ## DESCRIPTIVES ##</pre>	##		
<pre>## \$`Flug: Berlin-AUA` ## ## DESCRIPTIVES ##</pre>	##		
## ## DESCRIPTIVES ##			
## DESCRIPTIVES ##	## \$`Flug: Berlin-AUA`		
##			
<del>-</del>	## Descriptives		
##			
## Preis Device		Preis	Device
##		40	40
## N 40 40 ## Missing 0 0			
	_	-	U
## Mean 92.8 ## Median 88.0			
## Standard deviation 12.8			
## Minimum 87.0			
## Maximum 123			
##			
##			
##			
## \$`Flug: Lissabon-AUA`			
##			
## DESCRIPTIVES			
##			
## Descriptives	## Descriptives		
##	_		
## Preis Device	##	Preis	Device
##	##		
## N 40 40	## N	40	40

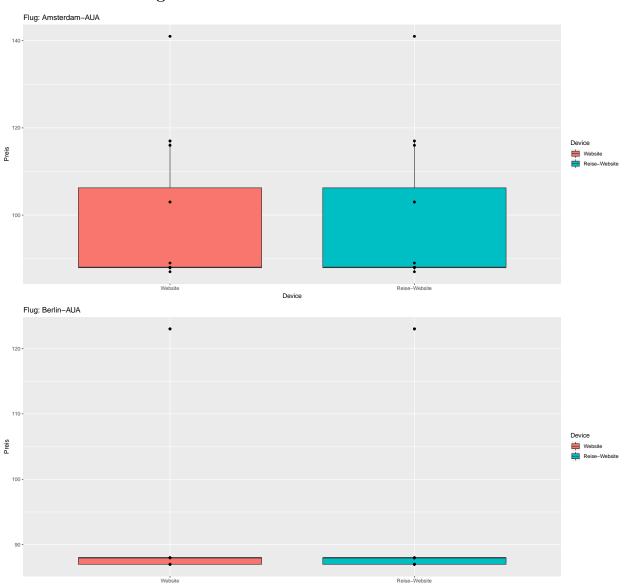
```
0
                             0
##
    Missing
##
    Mean
                         257
##
    Median
                        253
##
    Standard deviation
                        8.22
##
    Minimum
                         252
##
    Maximum
                         273
##
##
## $`Flug: London-AUA`
##
  DESCRIPTIVES
##
##
  Descriptives
##
##
                       Preis Device
##
##
     N
                        40
                                 40
                         0
##
    Missing
                                  0
##
    Mean
                         144
    Median
##
                         150
##
    Standard deviation 37.8
##
    Minimum
                        105
    Maximum
##
   _____
##
##
## $`Flug: Bangkok-AUA`
## DESCRIPTIVES
##
## Descriptives
##
##
                      Preis Device
##
##
                        40
                                 40
##
    Missing
                         0
##
    Mean
                        800
    Median
##
    Standard deviation 79.6
##
    Minimum
##
    Maximum
                         945
##
##
## $`Flug: New York-AUA`
##
##
  DESCRIPTIVES
##
##
   Descriptives
##
##
                       Preis Device
## -----
##
   N
                                  40
                          40
```

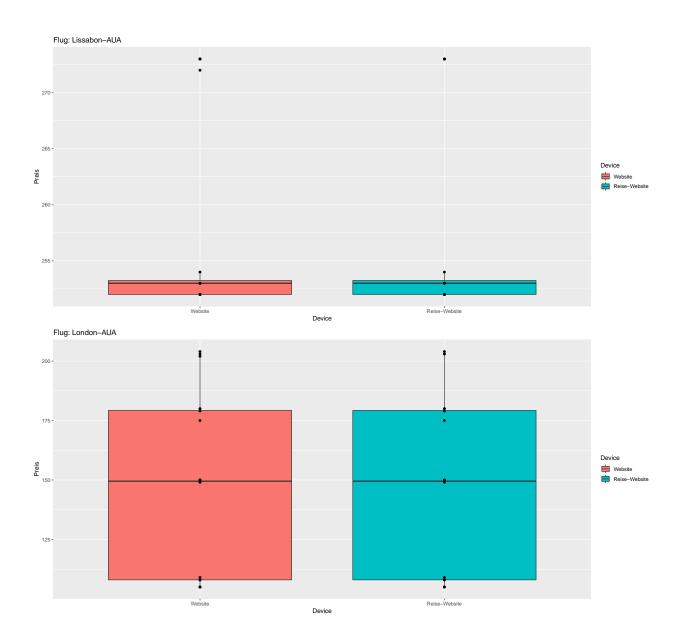
```
0
                             0
##
     Missing
##
     Mean
                         593
##
     Median
                         553
##
     Standard deviation
                         105
##
     Minimum
                         473
##
    Maximum
                         738
##
##
## $`Flug: Tokio-AUA`
##
  DESCRIPTIVES
##
##
  Descriptives
##
##
                       Preis Device
##
##
     N
                         40
                                 40
                         0
##
    Missing
                                  0
##
     Mean
                         850
     Median
##
                         823
##
    Standard deviation
##
    Minimum
                        747
##
     Maximum
                       1169
##
   _____
##
##
## $`Flug: Amsterdam-KLM`
## DESCRIPTIVES
##
## Descriptives
##
##
                      Preis Device
##
##
                         40
     N
                                 40
##
   Missing
                         0
##
    Mean
                        144
     Median
##
##
     Standard deviation 30.5
    Minimum
##
    Maximum
                         180
##
##
## $`Flug: Berlin-EZY`
##
##
  DESCRIPTIVES
##
##
   Descriptives
##
##
                      Preis Device
## -----
##
   N
                                  40
                          40
```

```
0
##
    Missing
                             0
                      64.3
##
    Mean
##
    Median
                      64.5
##
    Standard deviation
                      5.87
##
    Minimum
                        50.0
##
    Maximum
                       71.0
##
##
## $`Flug: Lissabon-LDM`
##
  DESCRIPTIVES
##
##
  Descriptives
##
##
                       Preis Device
##
     N
##
                        40
                                 40
                         0
##
    Missing
                                 0
##
    Mean
                        104
    Median
                        106
##
##
    Standard deviation 19.2
##
    Minimum
                       66.0
##
    Maximum
##
   _____
##
##
## $`Flug: London-BAW`
##
  DESCRIPTIVES
##
## Descriptives
##
##
                      Preis Device
##
##
    N
                        40
                                40
##
   Missing
                         0
##
    Mean
                        111
    Median
##
##
    Standard deviation 3.05
    Minimum
                        108
##
    Maximum
                        119
##
## $`Flug: Bangkok-THA`
##
##
  DESCRIPTIVES
##
##
   Descriptives
##
##
                      Preis Device
## -----
##
   N
                                  40
                          40
```

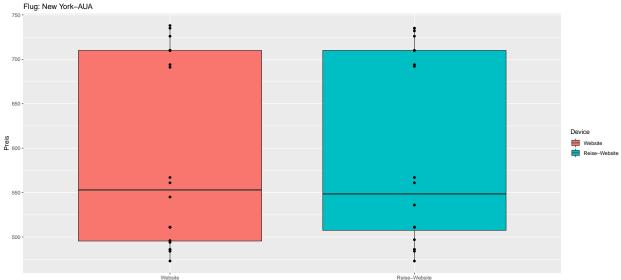
```
0
##
    Missing
                           0
##
    Mean
                       979
##
    Median
                       954
##
    Standard deviation
                     88.8
##
    Minimum
                       864
##
    Maximum
                      1193
##
##
## $`Flug: New York-UAL`
## DESCRIPTIVES
##
## Descriptives
##
                      Preis Device
##
##
##
    N
                       40
                               40
                       0
##
   Missing
                                0
##
                       620
    Mean
##
    Median
                       640
##
    Standard deviation
##
   Minimum
                       430
##
    Maximum
## -----
##
##
## $`Flug: Tokio-ANA`
## DESCRIPTIVES
##
## Descriptives
##
##
                     Preis Device
## -----
##
                       40
                               40
    N
  Missing
                                0
##
                        0
##
    Mean
                       687
    Median
##
##
    Standard deviation 62.8
##
  Minimum
##
   Maximum
                       894
```

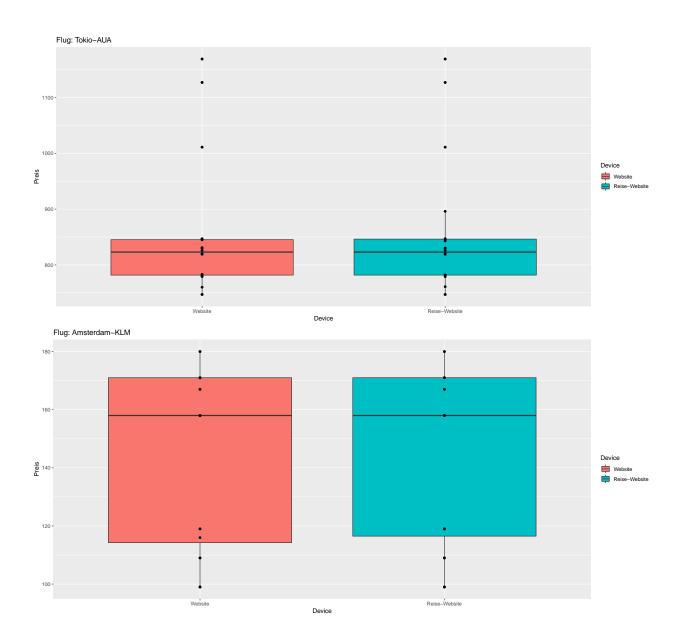
## Box-Plot - Einzelflüge

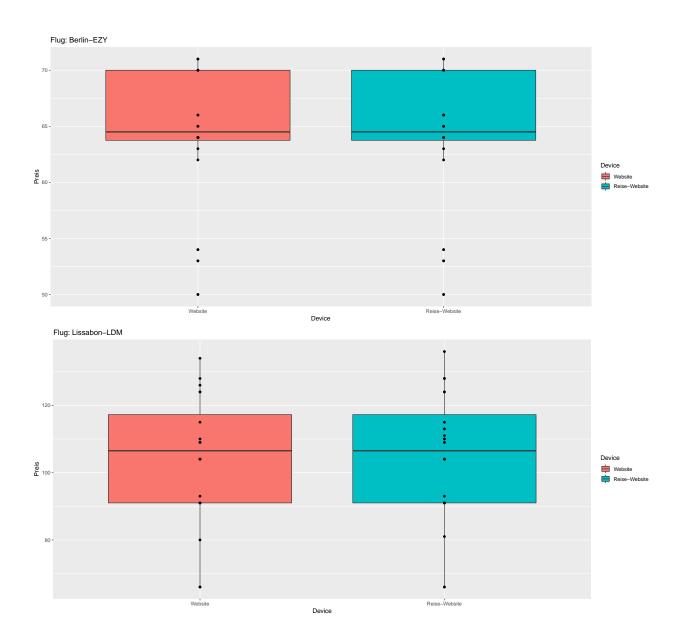


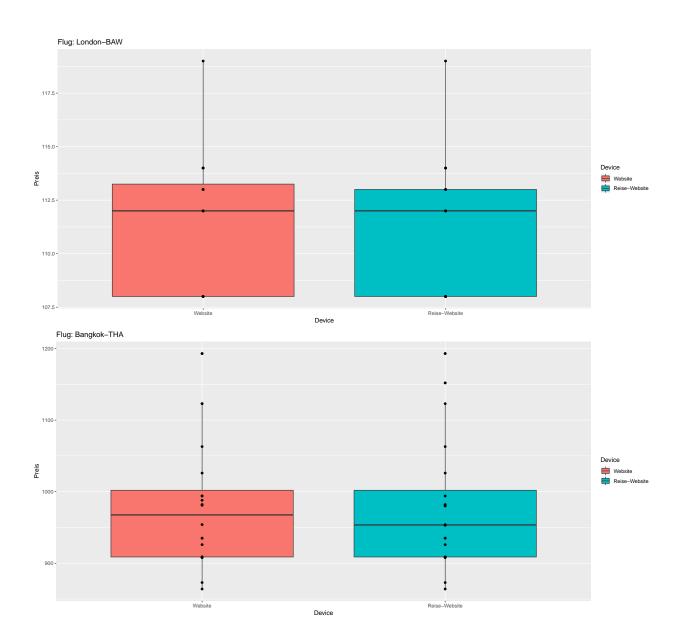


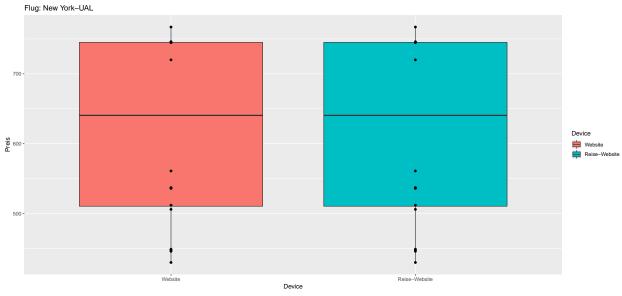


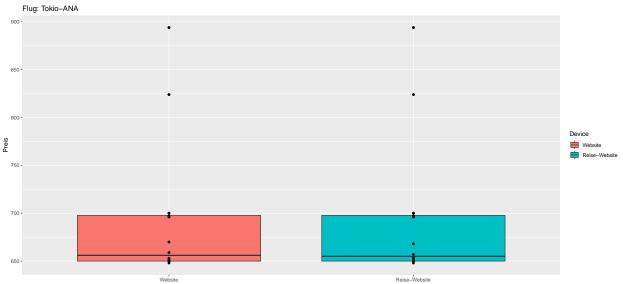












#### **ANOVA**

## \$`Flug: Amsterdam-AUA`
##
## ANOVA
##
-----## Sum of Squares df Mean Square F p
##
------## Device 0.00 1 0.00 1.18e-29 1.000
## Residuals 9141.10 38 240.56
##
##

## ESTIMATED MARGINAL MEANS

```
##
## DEVICE
##
##
  Estimated Marginal Means - Device
  -----
##
                          Lower Upper
    Device
              Mean SE
                97.9 3.47
##
    Website
                              90.8
    Reise-Website 97.9 3.47
##
                             90.8
                                     105
##
##
##
## $`Flug: Berlin-AUA`
##
##
  ANOVA
##
##
  ANOVA
##
             Sum of Squares df
                                Mean Square
##
   ______
##
    Device
                     0.00
                           1
                                    0.00
                                           1.26e-29
                                                    1.000
                                169.08
##
    Residuals 6425.10 38
##
##
##
##
  ESTIMATED MARGINAL MEANS
##
##
  DEVICE
##
   Estimated Marginal Means - Device
##
##
    Device
                Mean
                       SE
                            Lower Upper
##
                                    98.7
##
                92.9
                       2.91
                             87.0
    Website
    Reise-Website 92.9
                           87.0
##
                       2.91
                                     98.7
##
##
##
## $`Flug: Lissabon-AUA`
##
##
  ANOVA
##
##
  ANOVA
             Sum of Squares df Mean Square F p
##
                    0.0250
                                   0.0250
                           1
                                            3.60e-4 0.985
##
    Device
                 2636.7500 38
                                  69.3882
##
    Residuals
##
##
##
  ESTIMATED MARGINAL MEANS
##
##
```

## DEVICE

```
##
## Estimated Marginal Means - Device
  _____
##
##
                      SE
    Device
               Mean
                          Lower Upper
  _____
##
                 257
                     1.86
                             253
    Website
   Reise-Website 257 1.86 253
##
##
##
## $`Flug: London-AUA`
##
  ANOVA
##
##
##
 ANOVA
##
            Sum of Squares df Mean Square F
##
                  0.0250
##
                          1
                                        1.70e-5 0.997
                                 0.0250
   Device
    Residuals 55813.7500 38 1468.7829
##
##
##
##
##
  ESTIMATED MARGINAL MEANS
##
##
  DEVICE
##
##
  Estimated Marginal Means - Device
##
               Mean
                      SE Lower Upper
##
    Device
##
##
    Website
                 144
                      8.57
                            127
                                   161
                144 8.57
##
    Reise-Website
                            127
                                   162
##
##
##
## $`Flug: Bangkok-AUA`
##
## ANOVA
##
  ANOVA
##
  ______
            Sum of Squares df Mean Square F
##
                                  6.40
##
  Device
                     6.40
                          1
                                          9.83e-4 0.975
                               6510.33
   Residuals
               247392.70 38
##
##
##
  ESTIMATED MARGINAL MEANS
##
##
##
 DEVICE
##
## Estimated Marginal Means - Device
```

```
##
               Mean SE Lower Upper
   Device
##
  _____
##
                800
                     18.0
                             763
    Website
   Reise-Website 801
                     18.0
                            764
##
##
##
## $`Flug: New York-AUA`
##
##
  ANOVA
##
  ANOVA
##
  _____
             Sum of Squares df Mean Square F
##
##
                    21.0
                         1
                                   21.0 0.00187 0.966
   Device
               427247.8 38 11243.4
   Residuals
##
##
##
##
##
  ESTIMATED MARGINAL MEANS
##
##
  DEVICE
##
  Estimated Marginal Means - Device
##
    Device
          Mean SE Lower Upper
##
    Website 592 23.7 544
Reise-Website 593 23.7 545
                                 640
##
##
##
##
##
## $`Flug: Tokio-AUA`
##
## ANOVA
##
##
  ANOVA
##
  ______
            Sum of Squares df Mean Square F
##
##
   Device
                    99.2
                          1
                                   99.2
                                         0.00720
                                               0.933
                523463.5 38
##
   Residuals
                                13775.4
##
##
  ESTIMATED MARGINAL MEANS
##
##
  DEVICE
##
##
##
 Estimated Marginal Means - Device
##
               Mean SE Lower Upper
##
   Device
```

```
Website 848 26.2 795 901
Reise-Website 851 26.2 798 904
##
##
##
##
##
## $`Flug: Amsterdam-KLM`
##
##
  ANOVA
##
##
  ANOVA
##
              Sum of Squares df Mean Square F
##
##
                             1
    Device
                       2.50
                                        2.50
                                               0.00263 0.959
    Residuals 36184.60 38
                                   952.23
##
##
##
##
##
   ESTIMATED MARGINAL MEANS
##
##
  DEVICE
##
##
   Estimated Marginal Means - Device
##
       _____
##
                 Mean
                         SE
                               Lower Upper
##
    Website 145 6.90 131
Reise-Website 144 6.90 130
##
                                       159
##
##
##
##
## $`Flug: Berlin-EZY`
##
##
  ANOVA
##
##
  ANOVA
##
##
               Sum of Squares df Mean Square F
##
   ______
                       0.00
                              1
                                        0.00
                                               3.79e-29 1.000
    Device
##
    Residuals
                    1344.40 38
                                       35.38
##
##
   ESTIMATED MARGINAL MEANS
##
##
##
  DEVICE
##
##
   Estimated Marginal Means - Device
##
                 Mean SE Lower Upper
##
##
                 64.3 1.33
                               61.6 67.0
##
    Website
```

```
Reise-Website 64.3 1.33 61.6 67.0
##
##
##
##
## $`Flug: Lissabon-LDM`
##
##
  ANOVA
##
##
  ANOVA
##
##
            Sum of Squares df Mean Square F
##
  ______
                                   3.02
##
                    3.02
                          1
                                        0.00798 0.929
    Device
                14412.75 38
                                379.28
##
   Residuals
##
##
##
  ESTIMATED MARGINAL MEANS
##
  DEVICE
##
##
  Estimated Marginal Means - Device
##
##
                     SE
               Mean
                          Lower
##
  _____
##
    Website
                104 4.35
                           95.1
                                  113
   Reise-Website 104 4.35 95.6
##
                                 113
##
##
## $`Flug: London-BAW`
##
  ANOVA
##
##
##
  ANOVA
##
##
            Sum of Squares df Mean Square F p
##
##
    Device
                  0.0250
                          1
                                 0.0250
                                        0.00262
                                               0.959
##
                 362.9500 38
                                 9.5513
   Residuals
##
##
##
  ESTIMATED MARGINAL MEANS
##
  DEVICE
##
##
  Estimated Marginal Means - Device
##
  _____
##
           Mean
                     SE
##
    Device
                           Lower Upper
##
##
               111 0.691
                            110
  Reise-Website 111 0.691 110 113
##
  _____
```

##

```
##
##
## $`Flug: Bangkok-THA`
##
##
  ANOVA
##
##
##
               Sum of Squares df
                                    Mean Square F
##
     Device
                        10.0
                               1
                                          10.0
                                                 0.00124 0.972
                    307287.1 38
##
     Residuals
                                       8086.5
##
##
##
##
   ESTIMATED MARGINAL MEANS
##
  DEVICE
##
##
##
   Estimated Marginal Means - Device
##
               Mean SE
                             Lower Upper
##
                          20.1
                                  939
##
                   979
                                         1020
     Website
    Reise-Website 978 20.1
                                 938
                                         1019
##
##
##
## $`Flug: New York-UAL`
##
  ANOVA
##
##
  ANOVA
##
##
##
               Sum of Squares df Mean Square F
##
                                     0.00
##
    Device
                        0.00
                               1
                                                 4.64e-30 1.000
                                  17422.68
##
              662062.00 38
    Residuals
##
##
##
##
   ESTIMATED MARGINAL MEANS
##
##
  DEVICE
##
##
   Estimated Marginal Means - Device
##
##
                          SE
                  Mean
                                Lower Upper
##
                    620
                          29.5
##
     Website
                                   561
                                          680
                          29.5 561 680
    Reise-Website 620
##
##
##
```

##

```
## $`Flug: Tokio-ANA`
##
##
 ANOVA
##
## ANOVA
## -----
          Sum of Squares df Mean Square F p
##
  Device 0.625 1 0.625 1.54e-4 0.990 Residuals 154038.150 38 4053.636
##
##
##
##
##
## ESTIMATED MARGINAL MEANS
##
## DEVICE
##
 Estimated Marginal Means - Device
##
  _____
##
          Mean SE Lower Upper
##
 -----
##
##
 Website
            687 14.2
                      658
## Reise-Website 687 14.2 658 716
## -----
```