

# PFE : Analyse des données questionnaire

```
##
## Attachement du package : 'dplyr'

## Les objets suivants sont masqués depuis 'package:stats':
##
##     filter, lag

## Les objets suivants sont masqués depuis 'package:base':
##
##     intersect, setdiff, setequal, union

##
## Attachement du package : 'data.table'

## Les objets suivants sont masqués depuis 'package:dplyr':
##
##     between, first, last

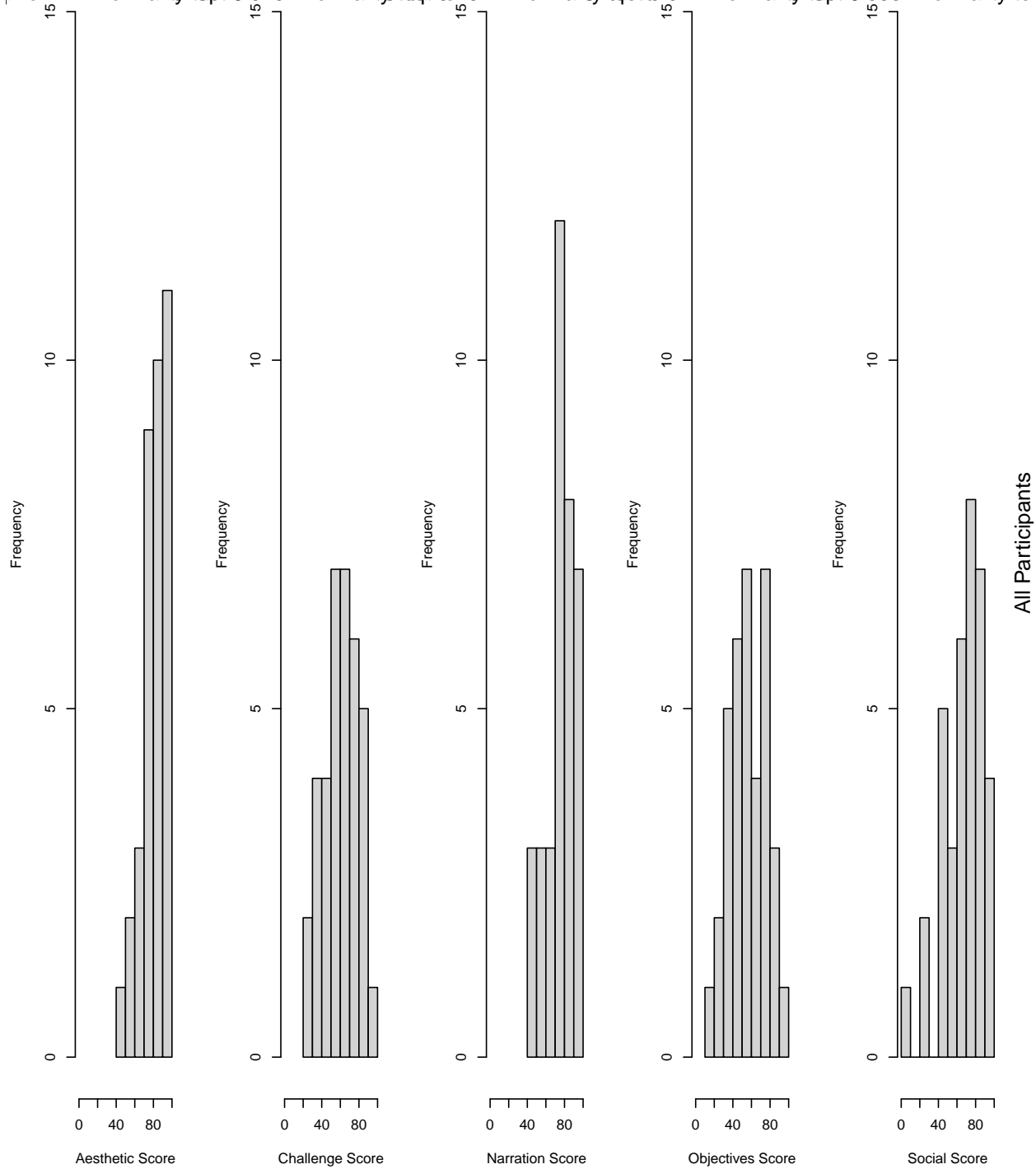
## Warning: le package 'ggpubr' a été compilé avec la version R 4.1.2

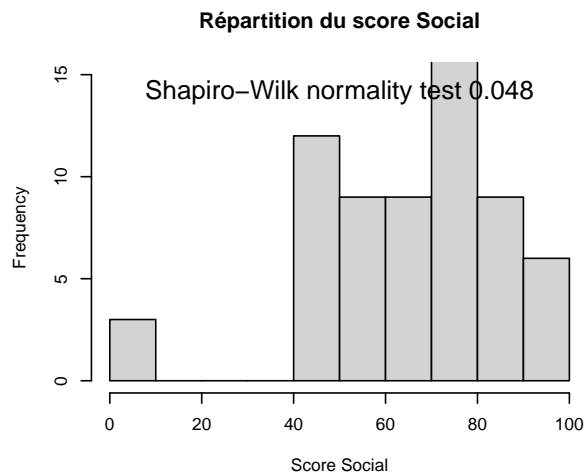
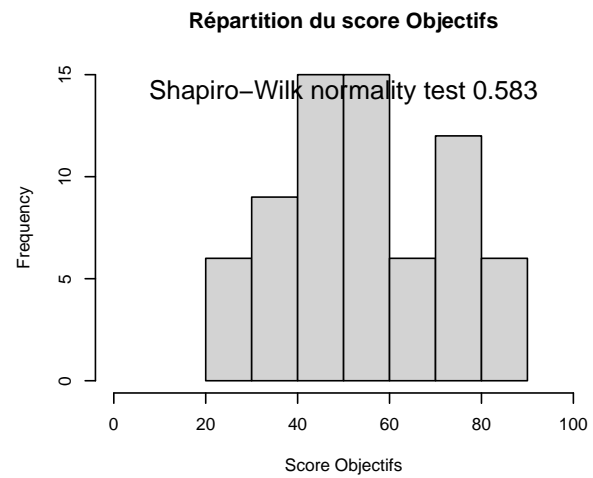
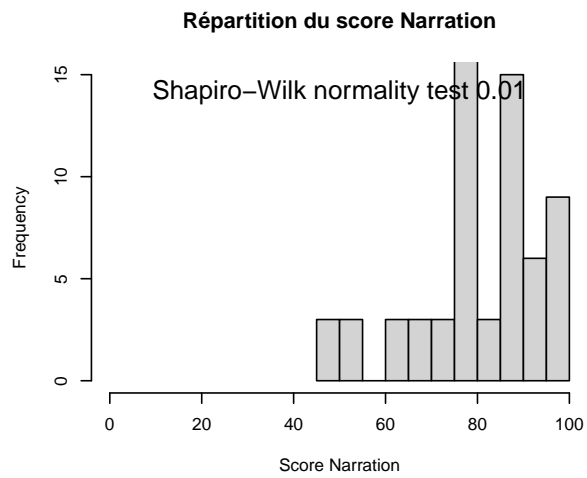
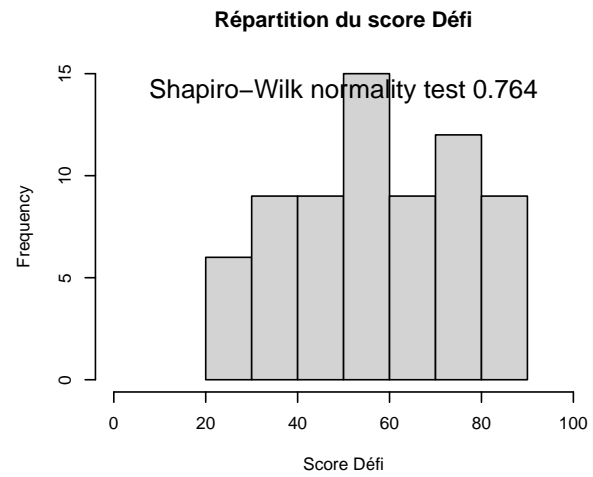
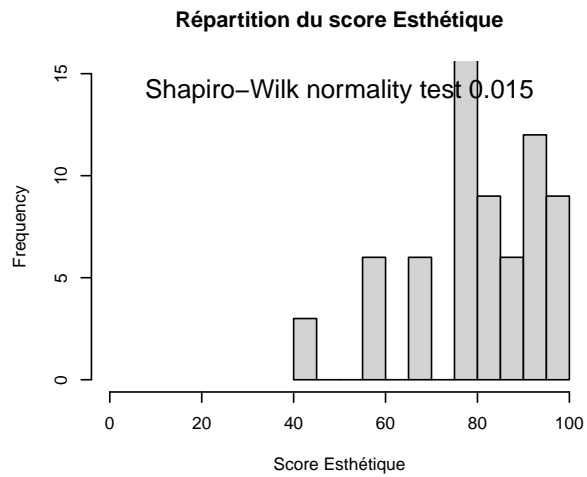
##
## Attachement du package : 'plspm'

## L'objet suivant est masqué depuis 'package:ggplot2':
##
##     alpha

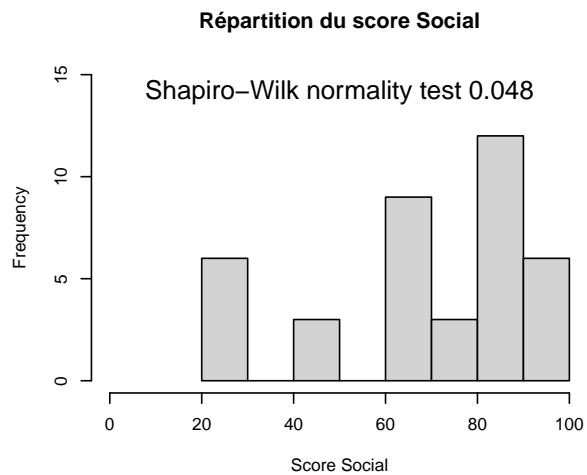
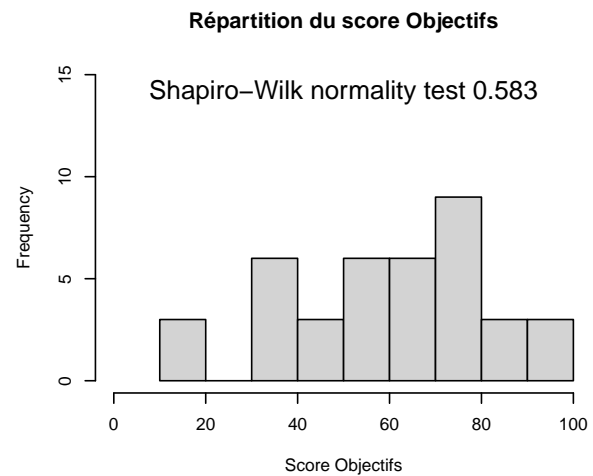
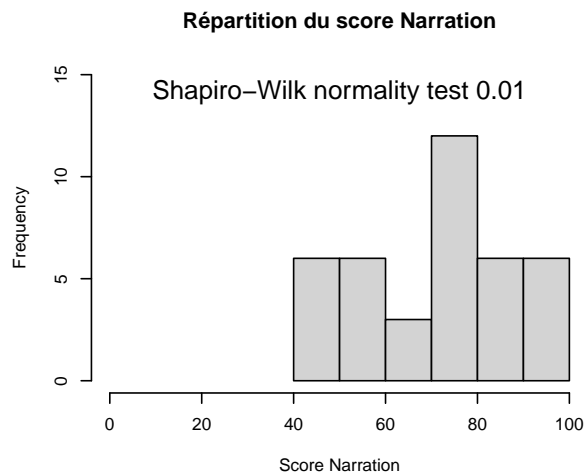
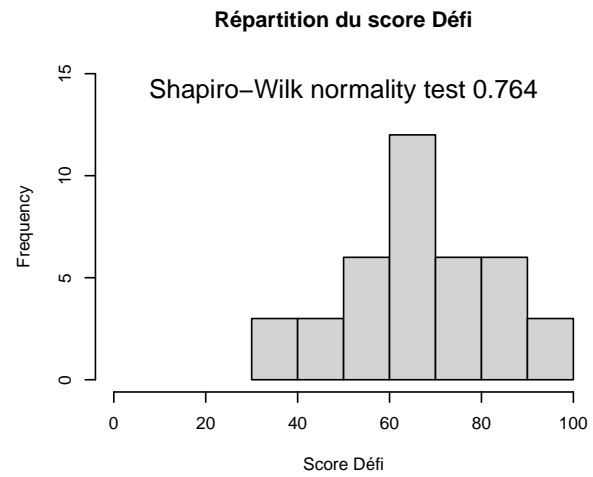
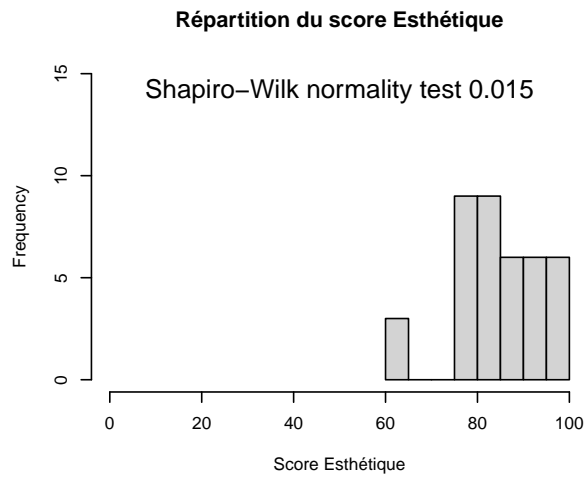
## corrplot 0.90 loaded
```

Step 1: Shapiro-Wilk normality test:  $p = 0.015$  Step 2: Levene normality test:  $p = 0.754$  Step 3: Shapiro-Wilk normality test:  $p = 0.01$  Step 4: Levene normality test:  $p = 0.583$





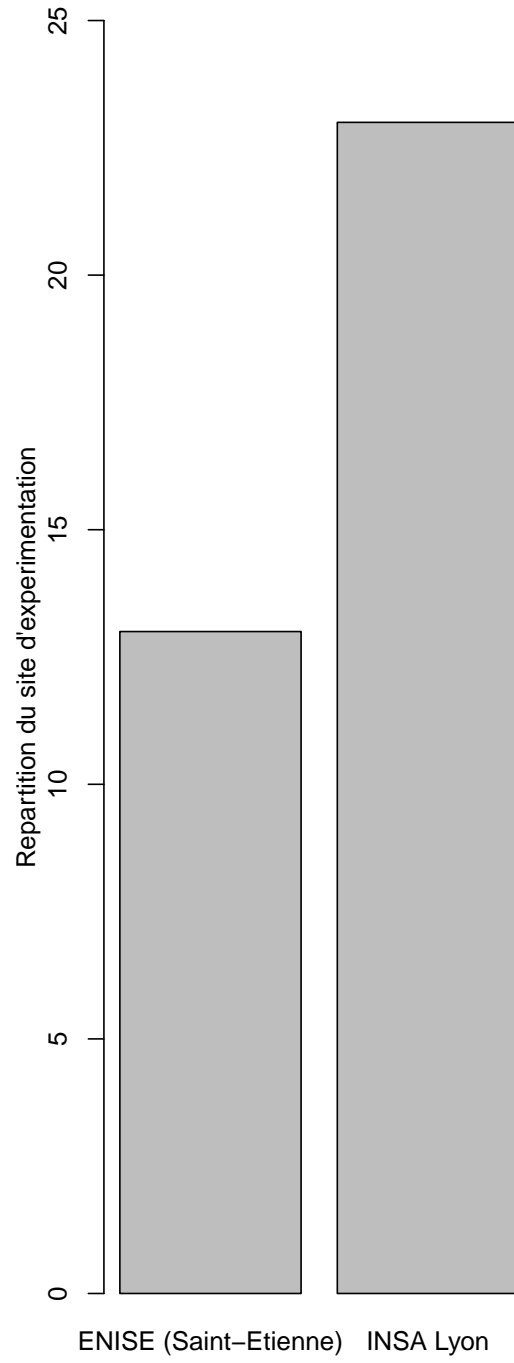
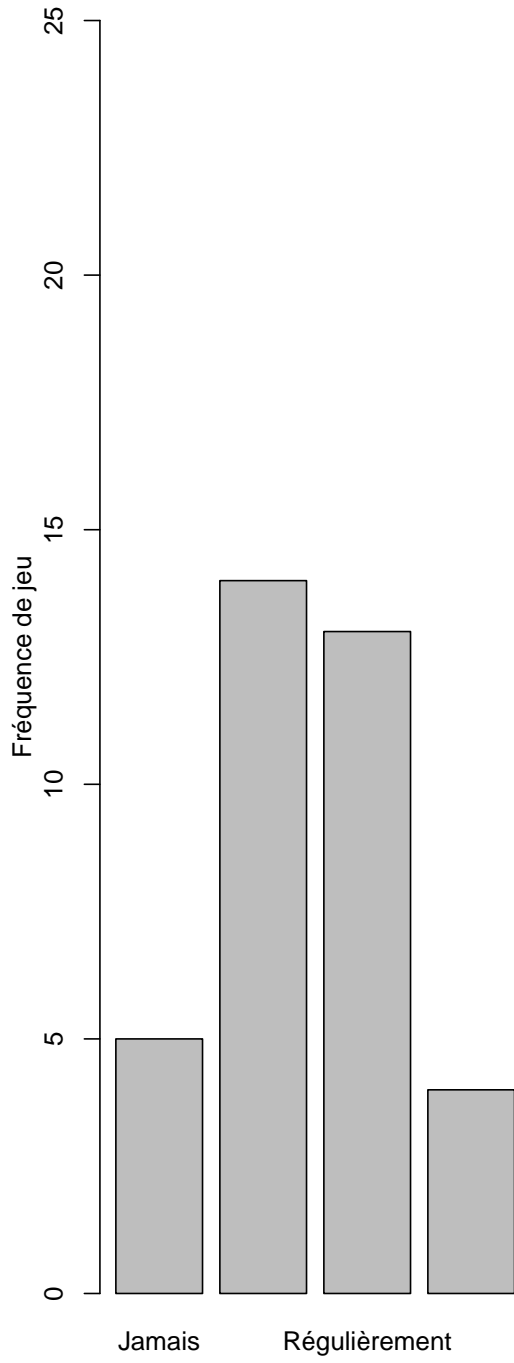
INSA Participants

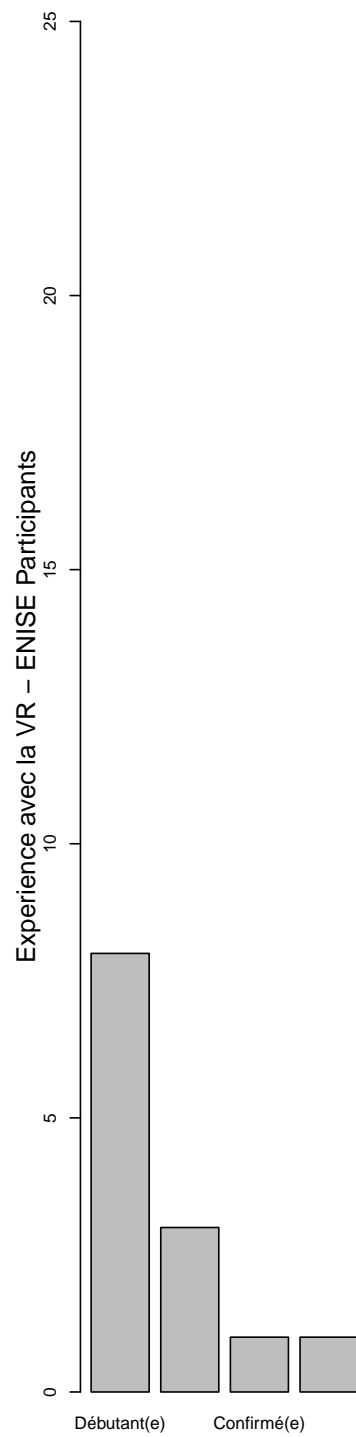
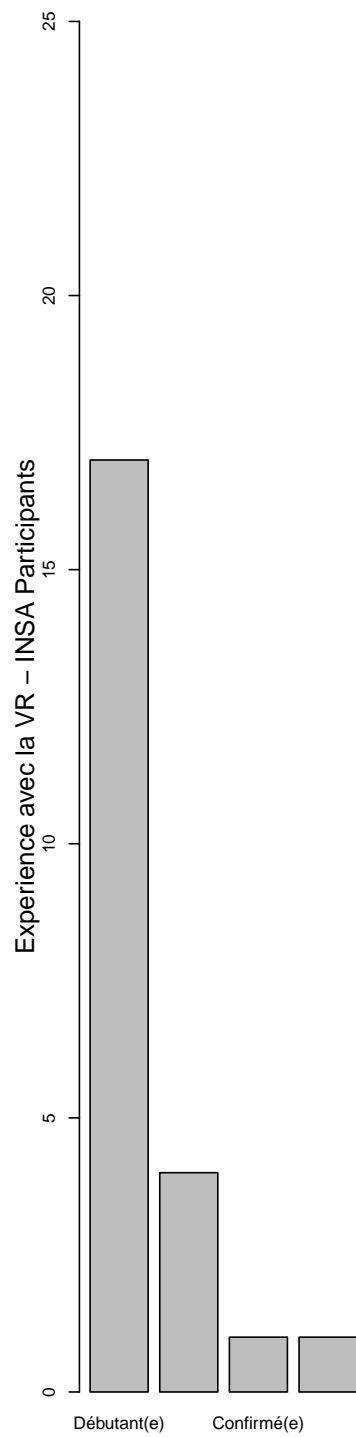
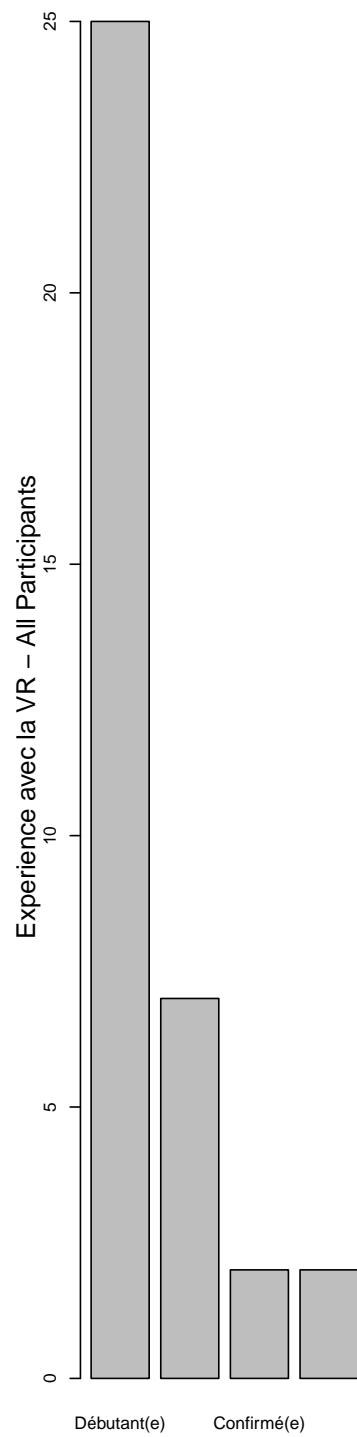


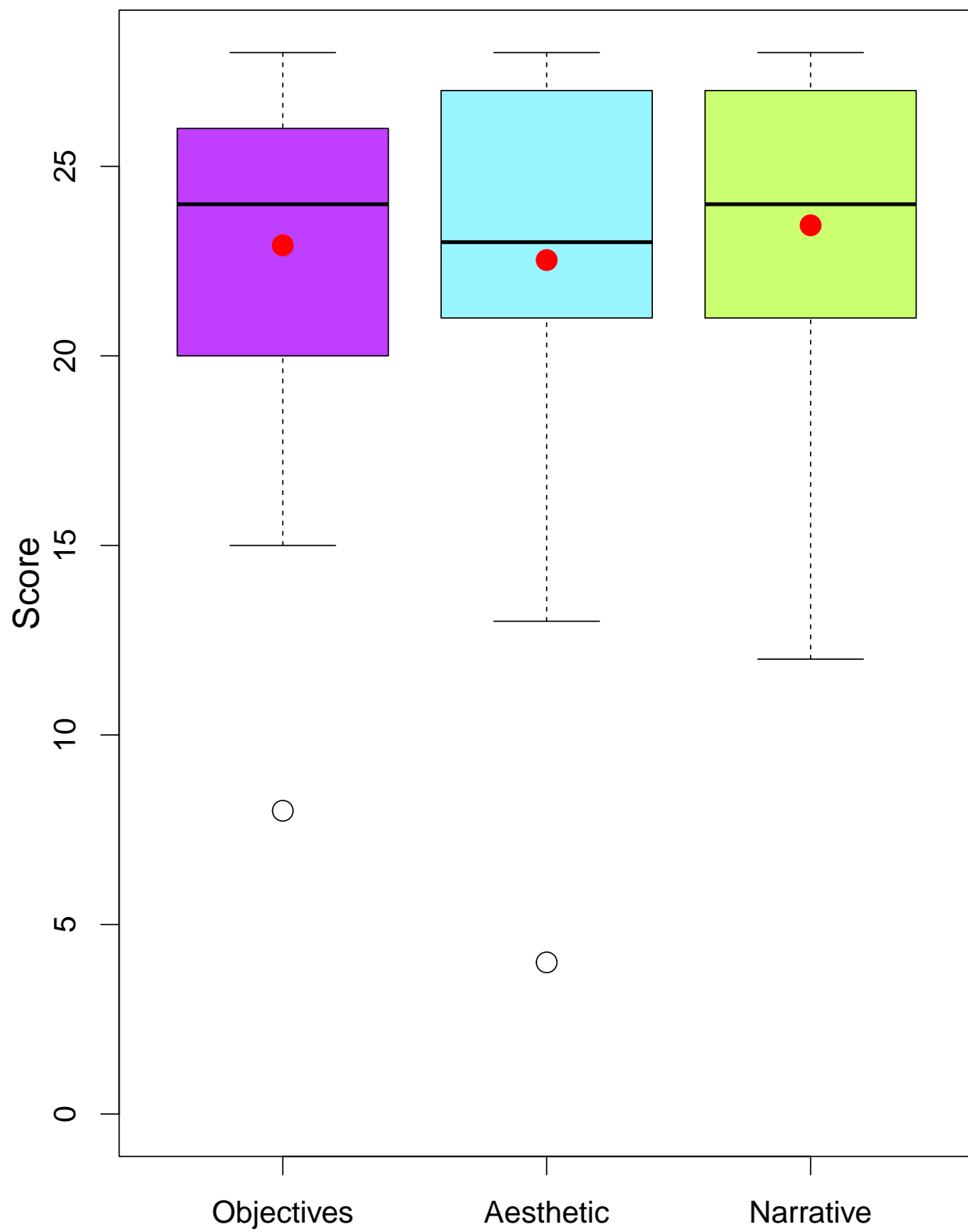
ENISE Participants

##	Aesthetic	Challenge	Narrative	Objectives	Social
## Aesthetic	1.0000000	0.23222201	0.3517881	0.1063648	0.40066883
## Challenge	0.2322220	1.00000000	0.2154815	0.3649836	0.07103148
## Narrative	0.3517881	0.21548145	1.0000000	0.2517734	0.28886642

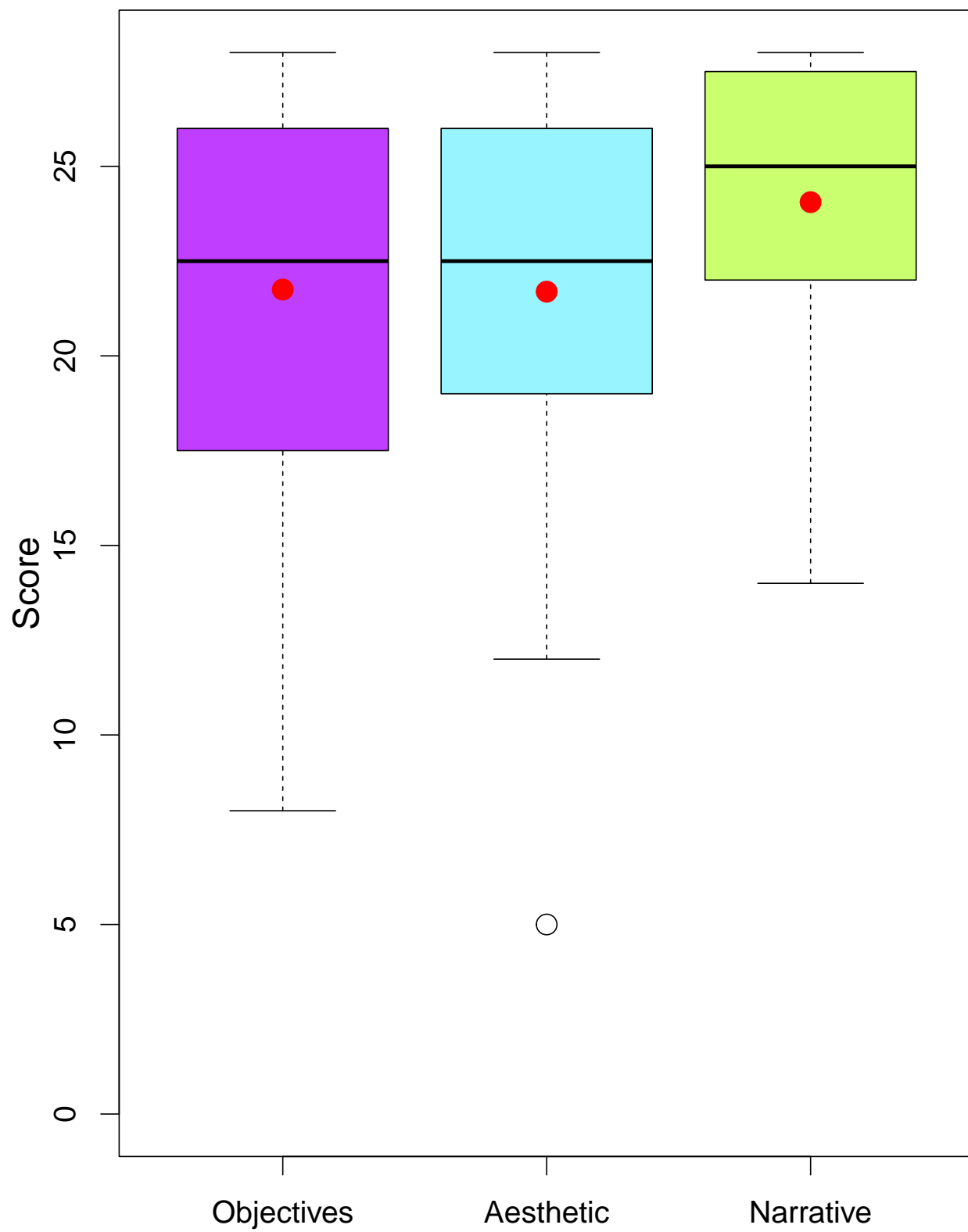
```
## Objectives 0.1063648 0.36498359 0.2517734 1.0000000 -0.14230870
## Social      0.4006688 0.07103148 0.2888664 -0.1423087 1.00000000
```





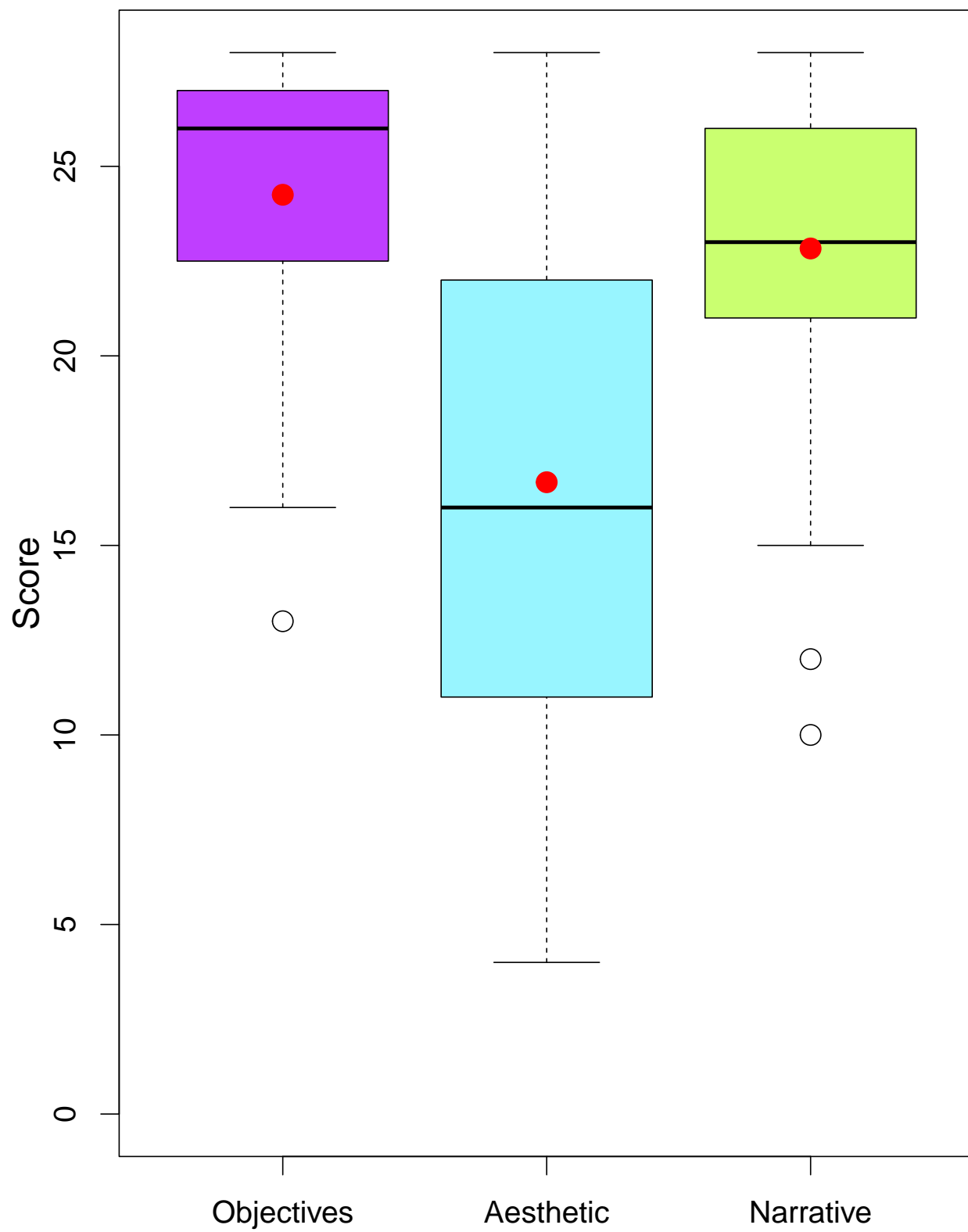


##	Objectives	Aesthetic	Narrative
##	22.91667	22.52778	23.44444

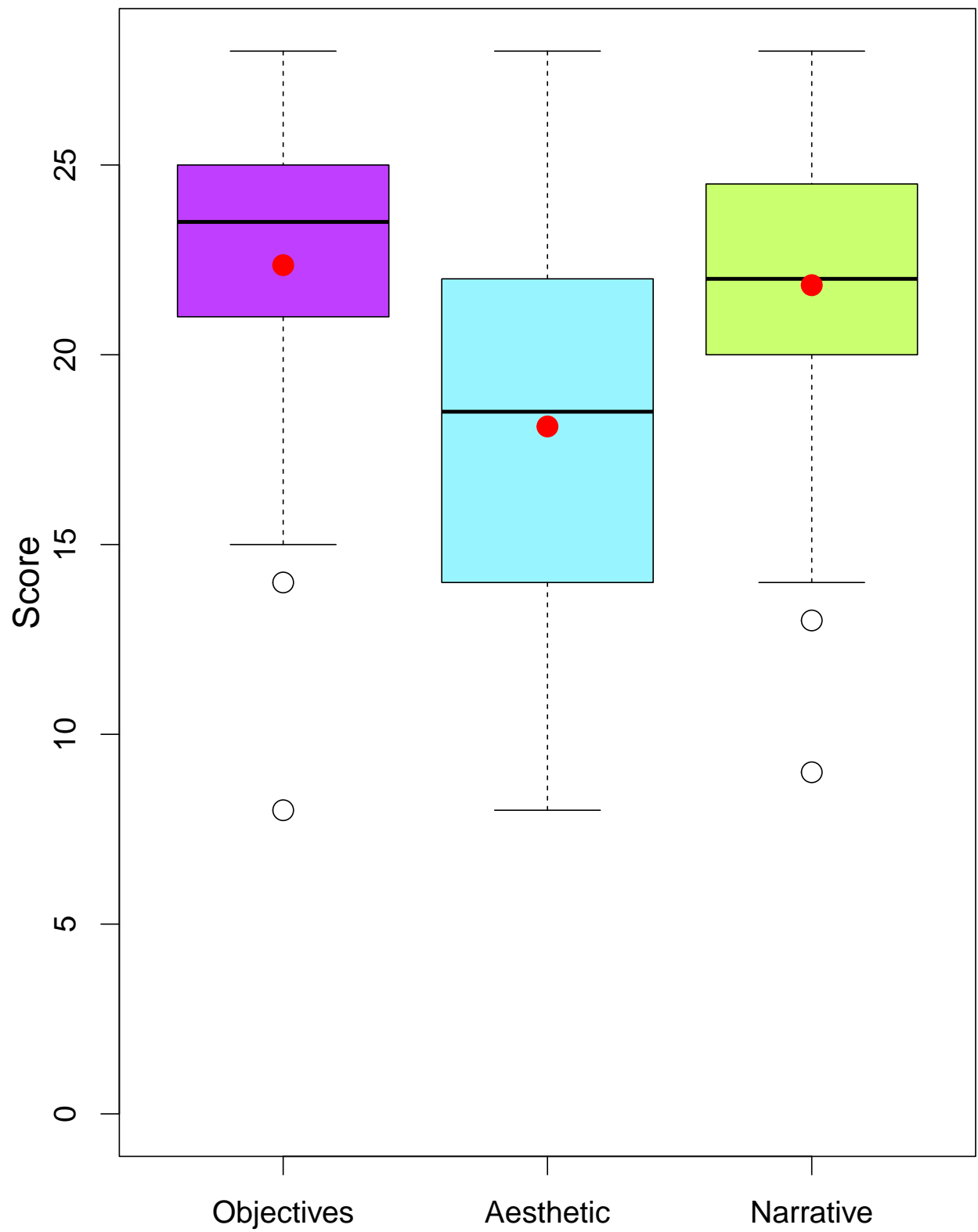


```
## Objectives  Aesthetic  Narrative
##    21.75000    21.69444    24.05556
```

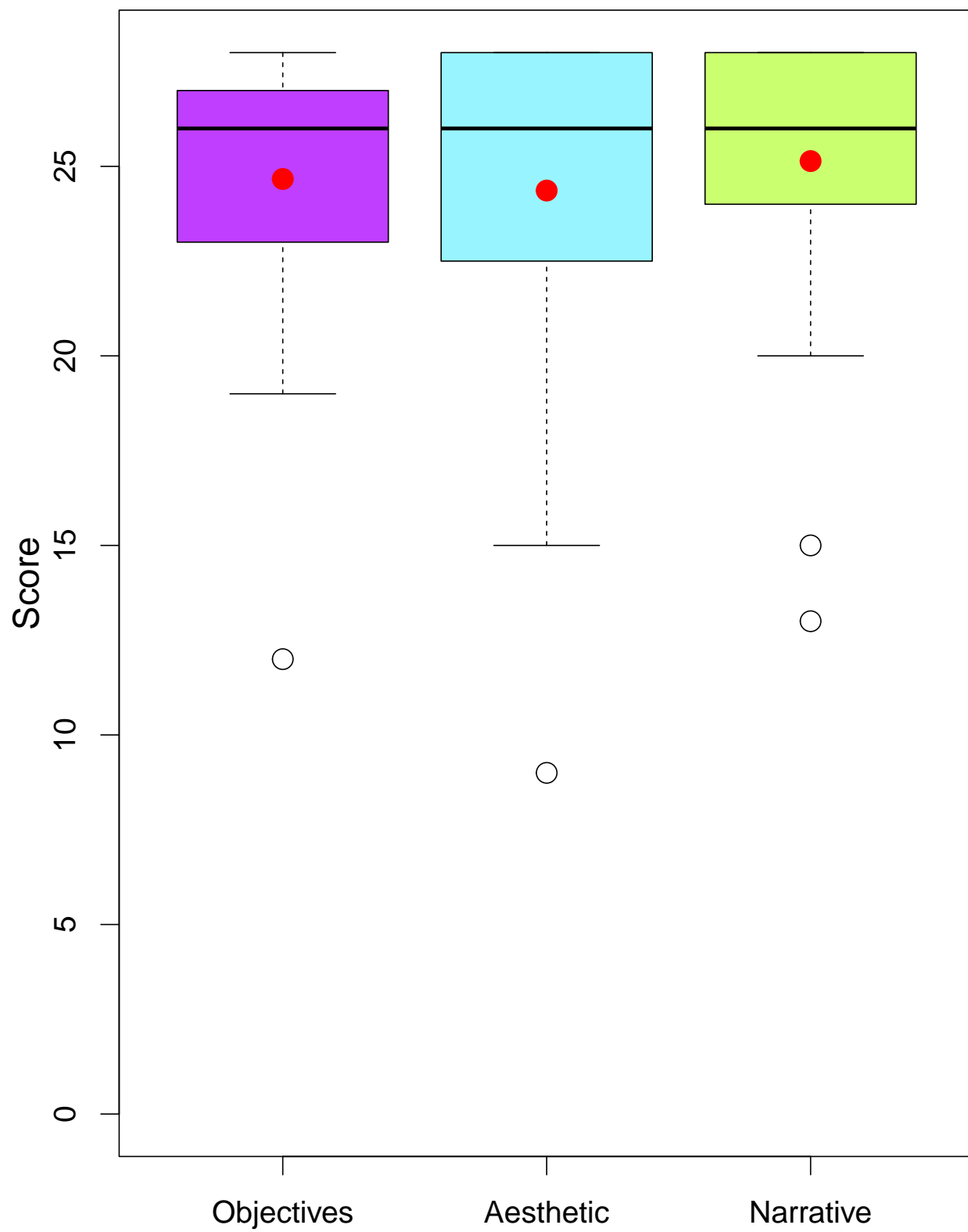




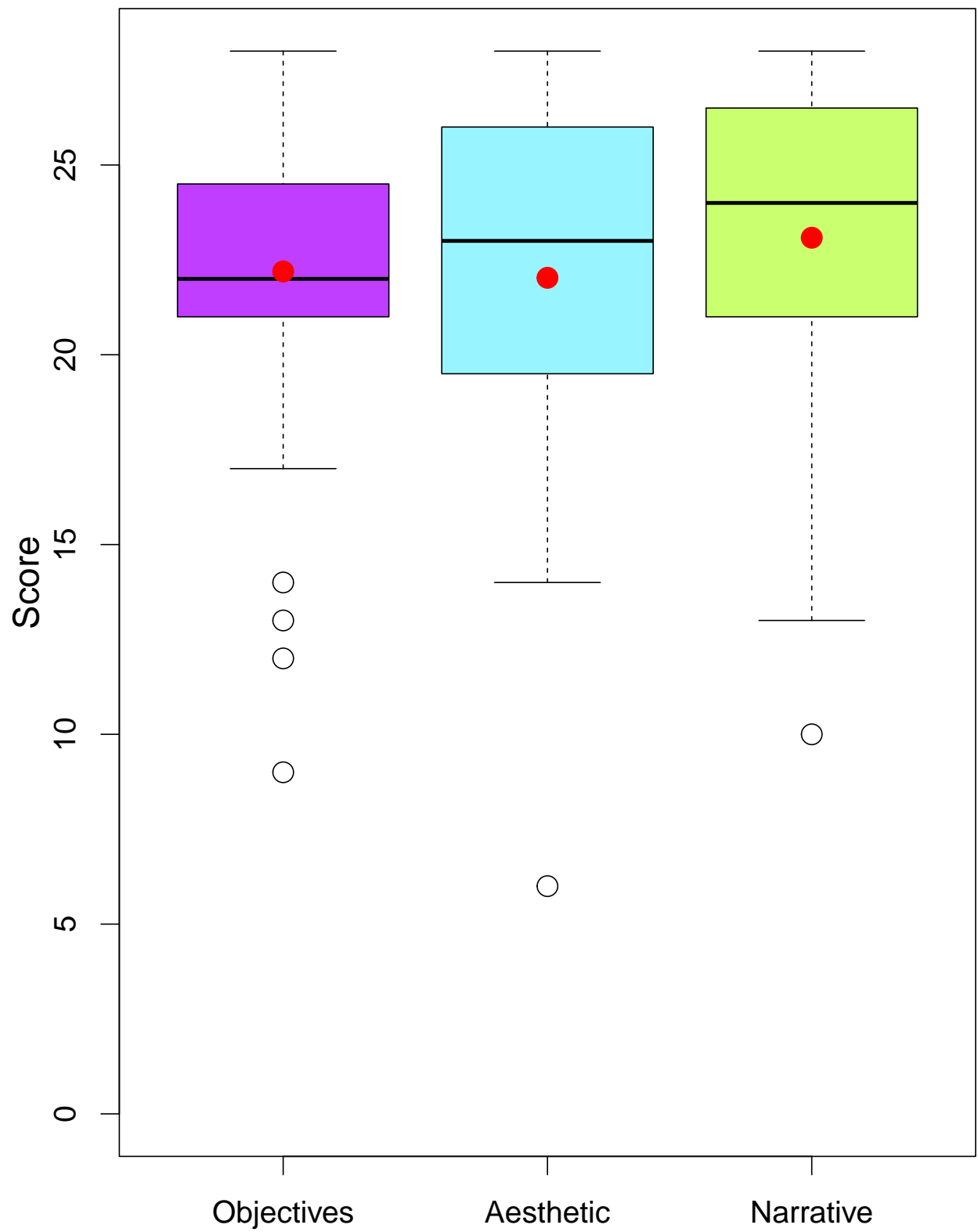
##	Objectives	Aesthetic	Narrative
##	24.25000	16.66667	22.83333



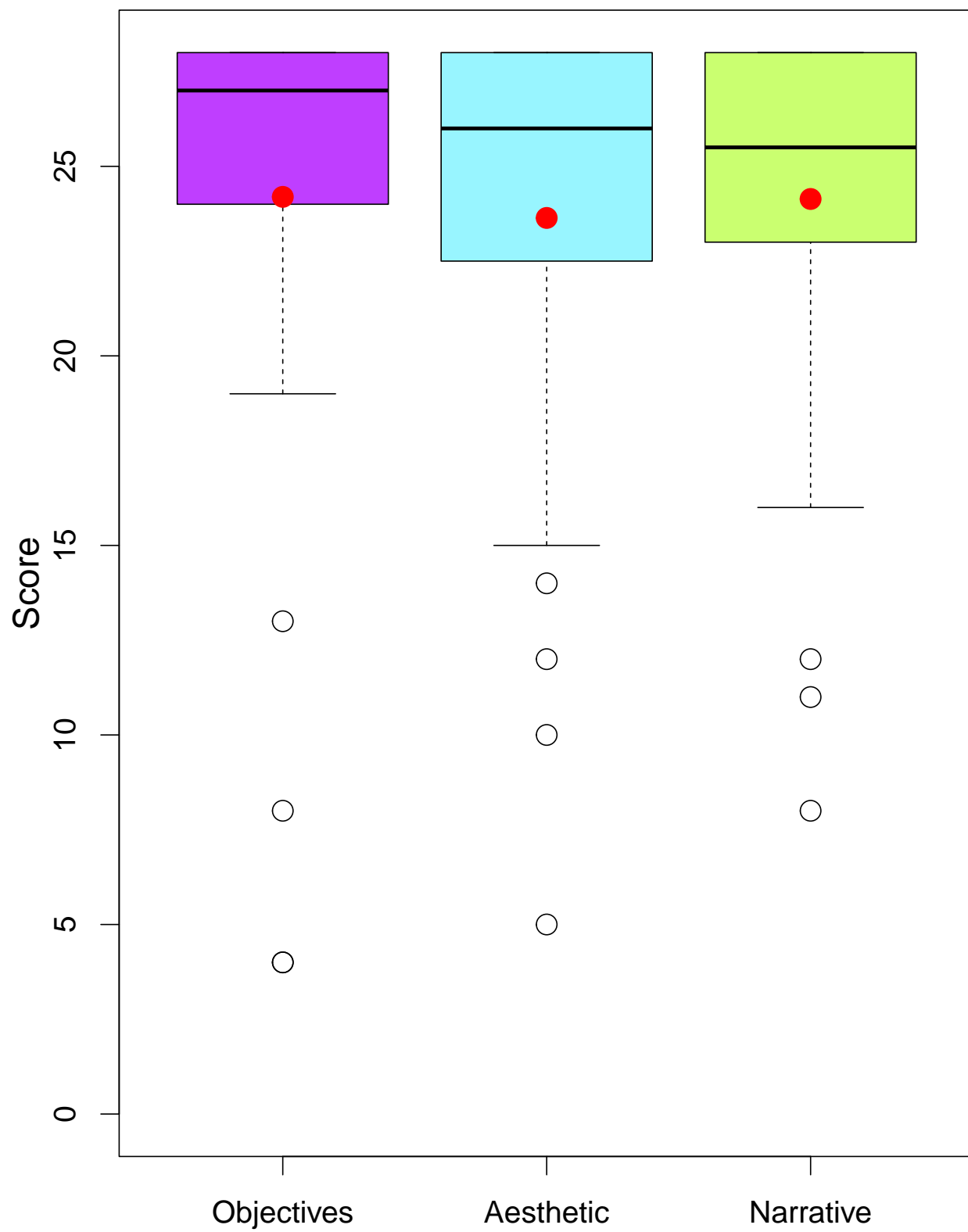
```
## Objectives  Aesthetic  Narrative
##  22.36111   18.11111   21.83333
```



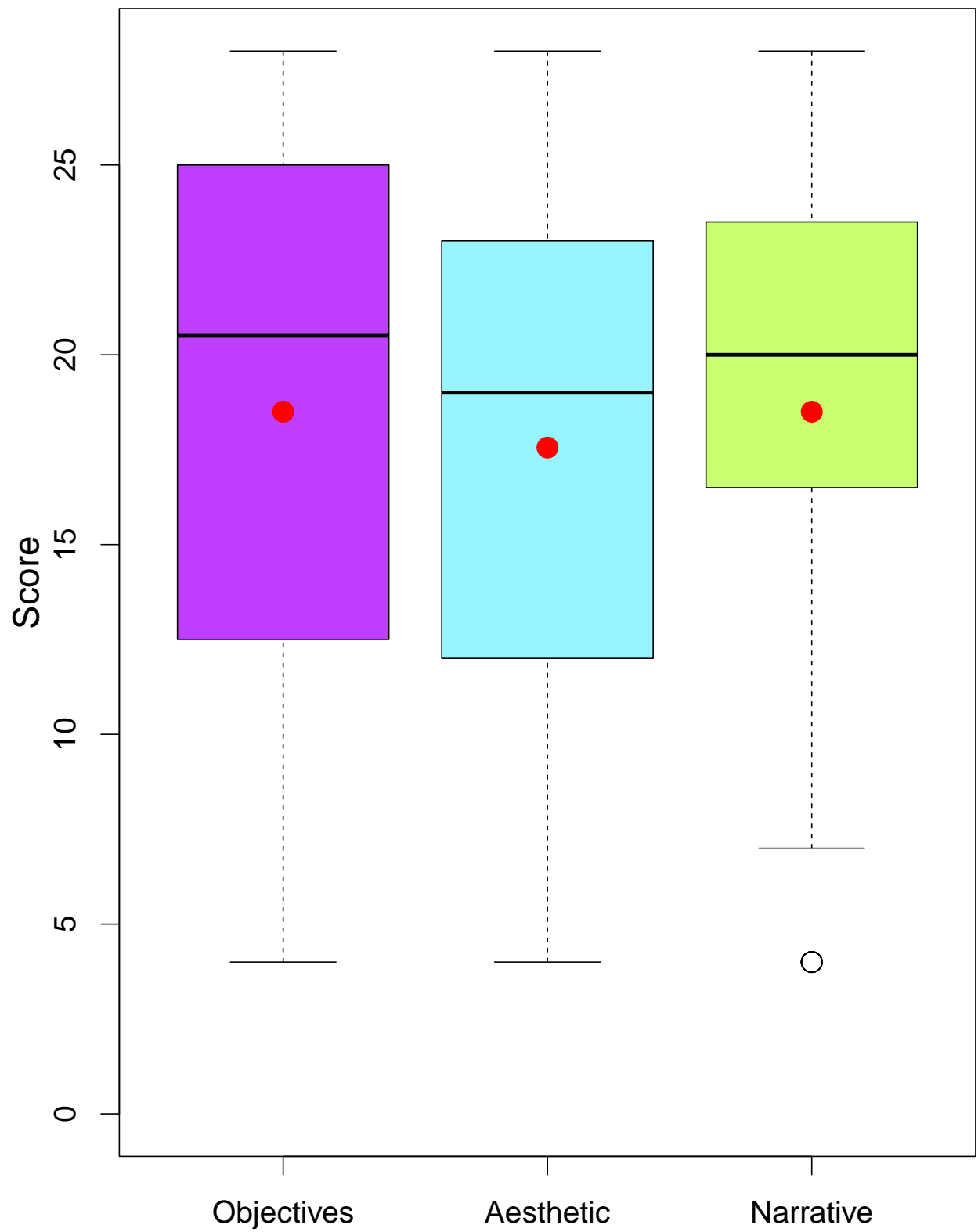
```
## Objectives  Aesthetic  Narrative
##   24.66667   24.36111   25.13889
```



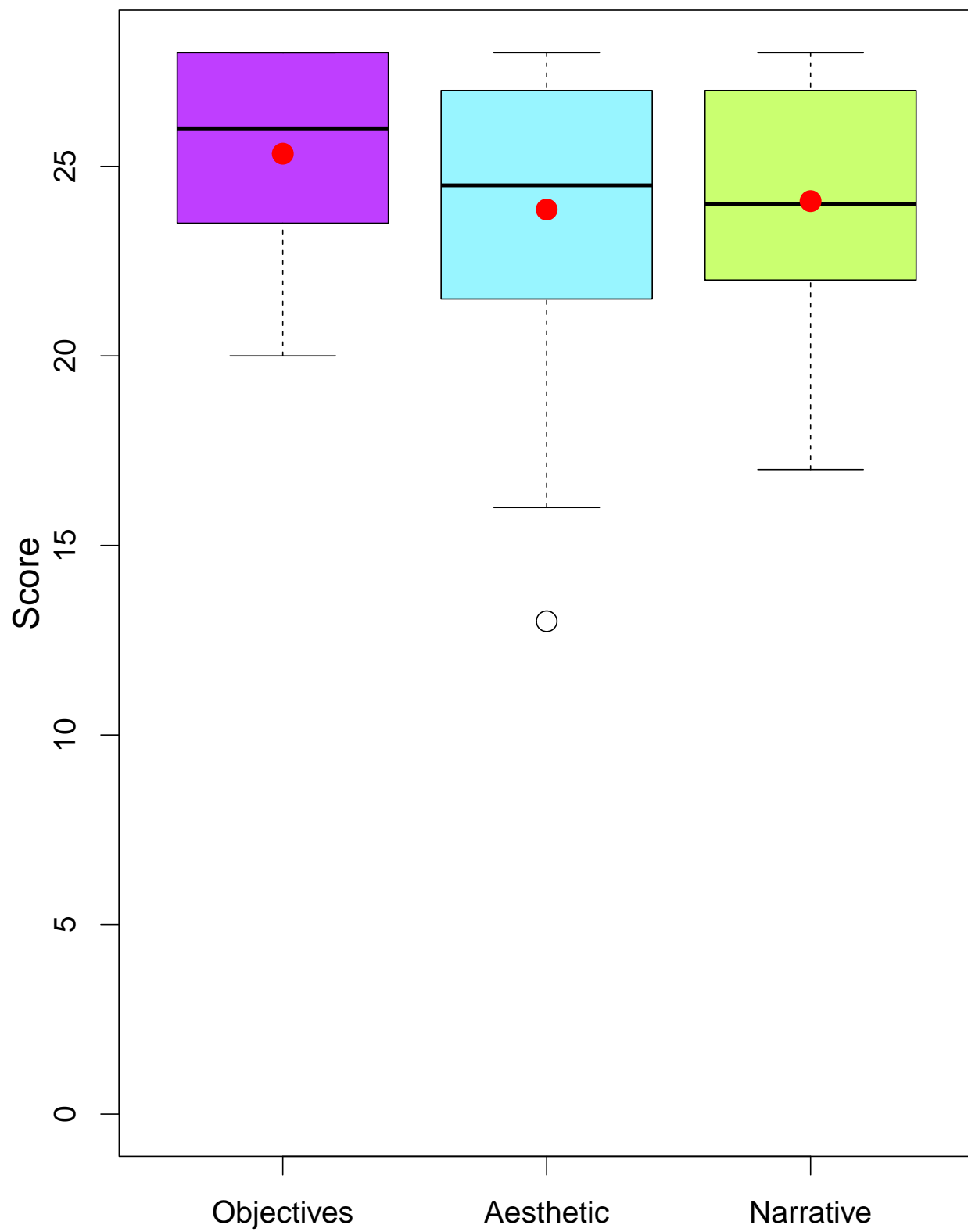
```
## Objectives  Aesthetic  Narrative
##   22.19444   22.02778   23.08333
```



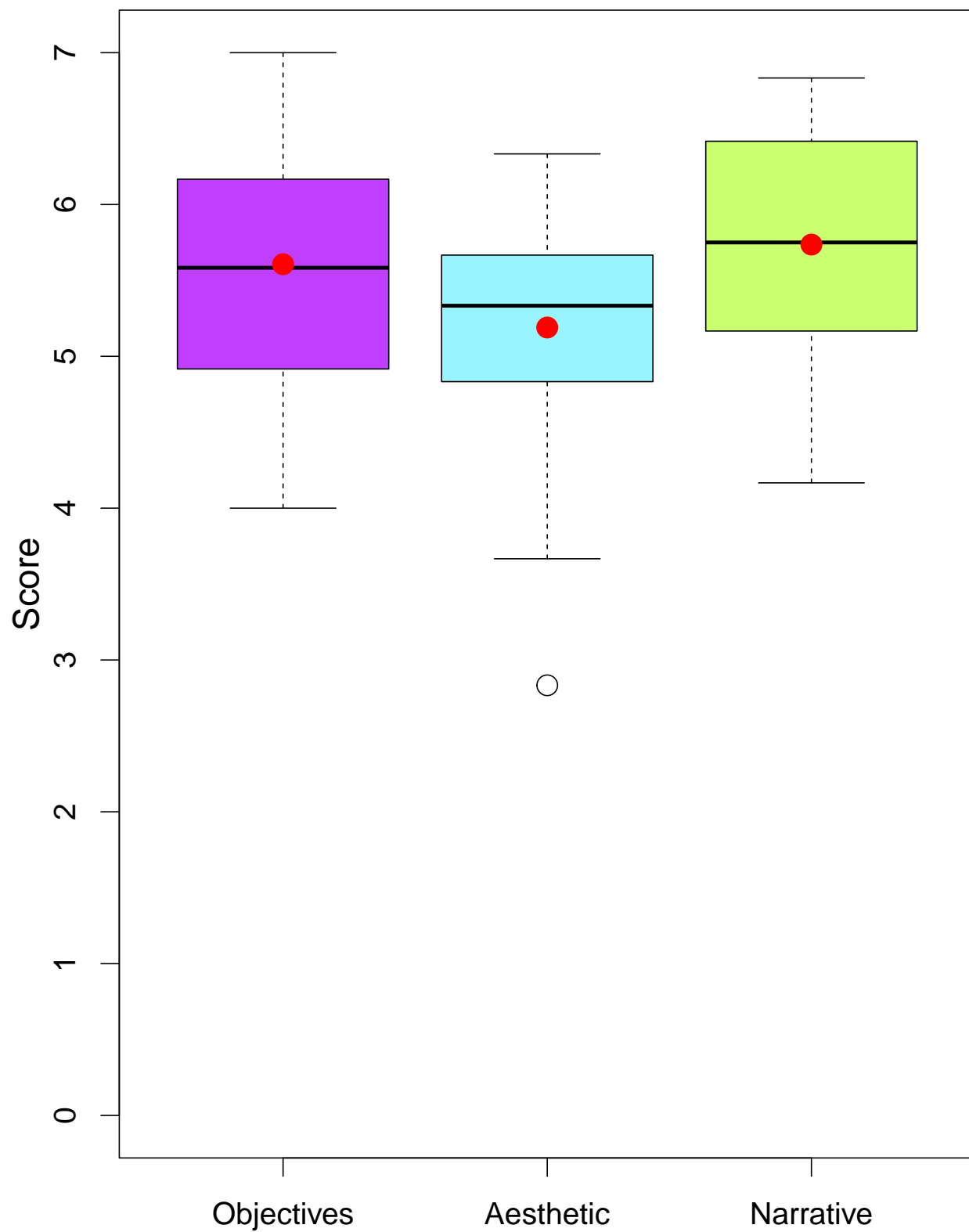
```
## Objectives  Aesthetic  Narrative
##   24.19444   23.63889   24.13889
```



```
## Objectives  Aesthetic  Narrative
##   18.50000   17.55556   18.50000
```



##	Objectives	Aesthetic	Narrative
##	25.33333	23.86111	24.08333



```
## Objectives  Aesthetic  Narrative
##   5.606481   5.189815   5.736111
```

```
##   First   Second   Third
```



```
## 21.30556 22.80556 24.77778
```

```
## Tukey multiple comparisons of means
```

```
## 95% family-wise confidence level
```

```
##
```

```
## Fit: aov(formula = traits_dfs_df[[dimension]] ~ est.ce.votre.premiere..deuxieme.ou.troisieme.experie
```

```
##
```

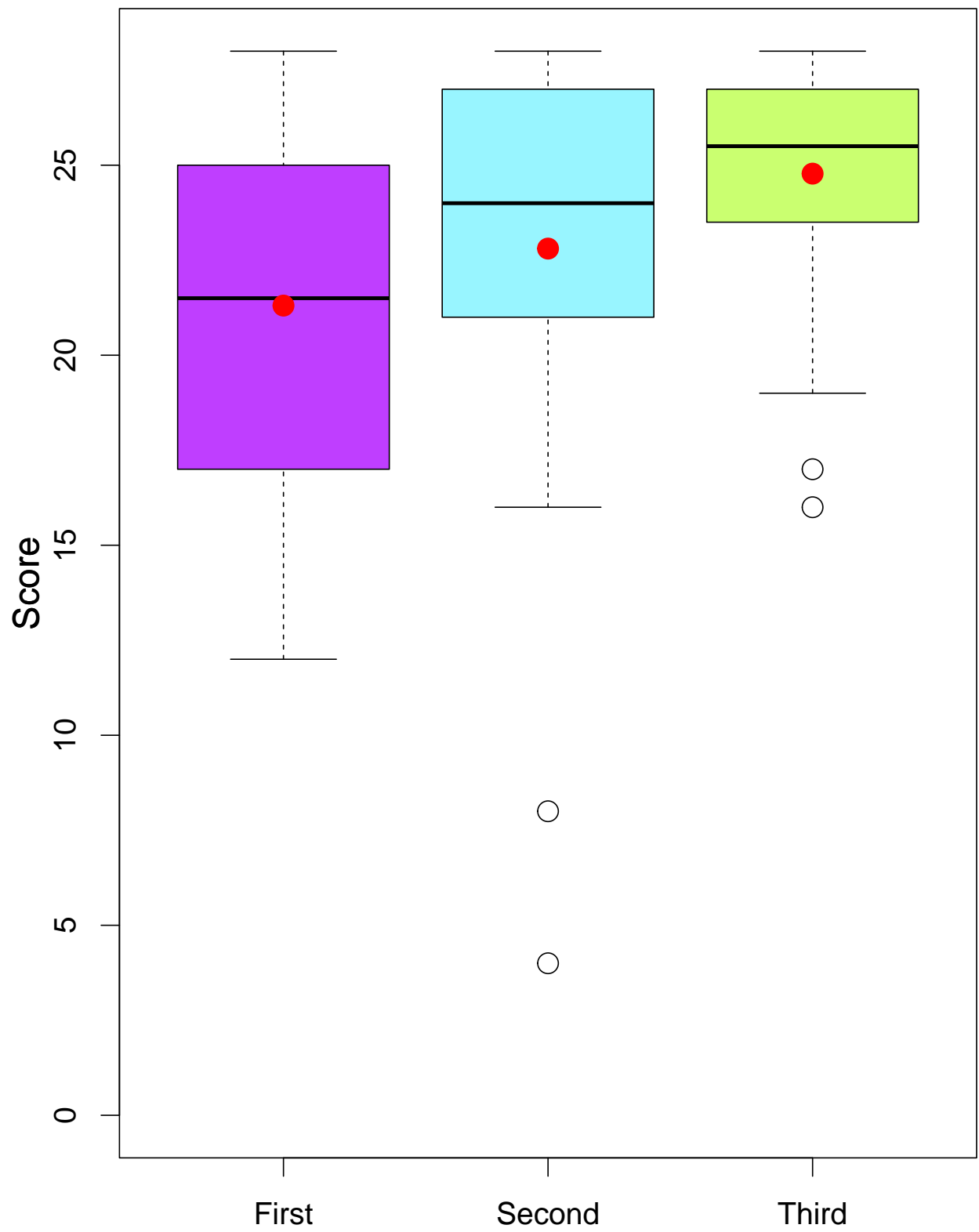
```
## $est.ce.votre.premiere..deuxieme.ou.troisieme.experience..
```

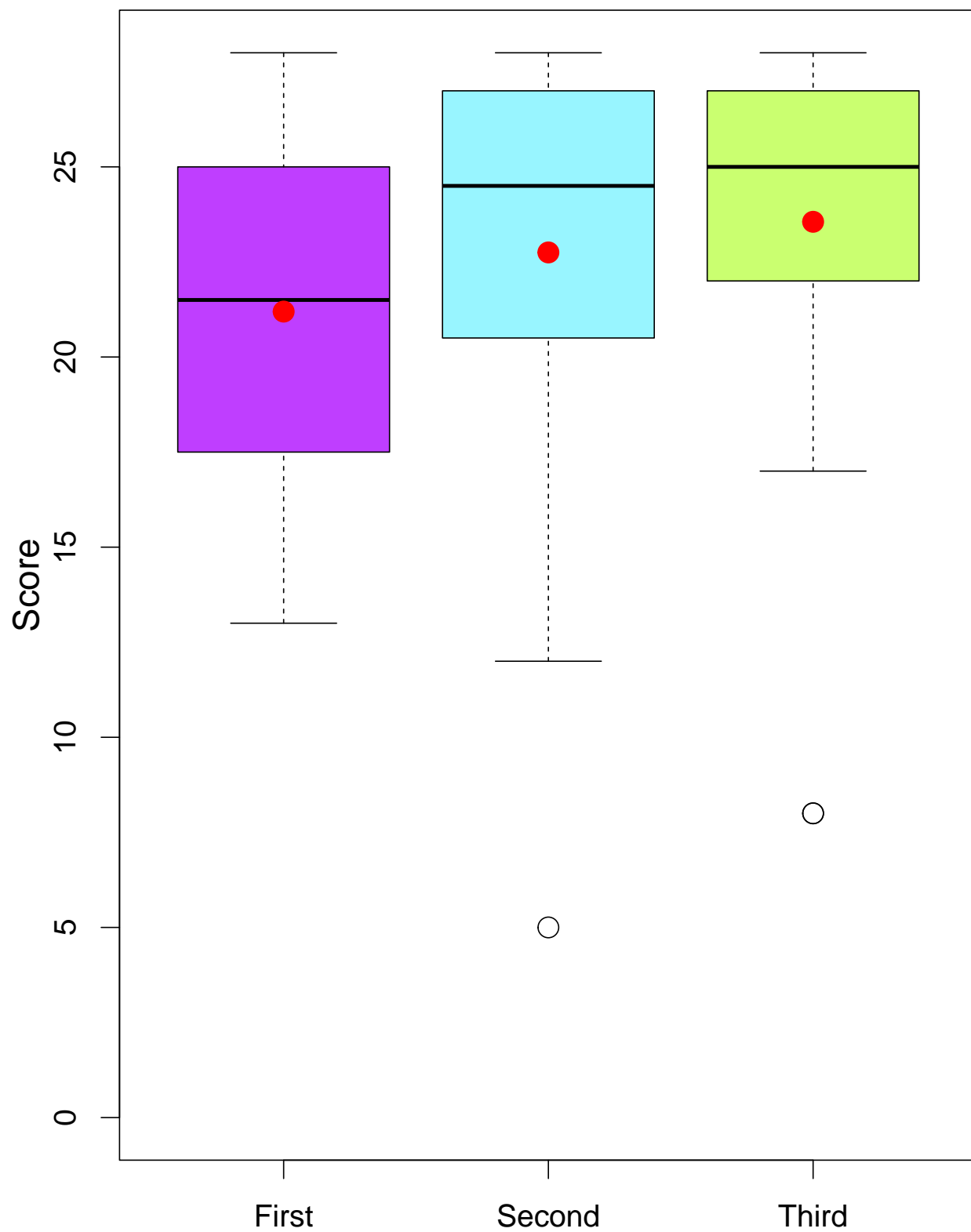
```
##           diff           lwr           upr           p adj
```

```
## Première-Deuxième -1.500000 -4.0471362 1.047136 0.3445786
```

```
## Troisième-Deuxième 1.972222 -0.5749139 4.519358 0.1614494
```

```
## Troisième-Première 3.472222 0.9250861 6.019358 0.0045169
```

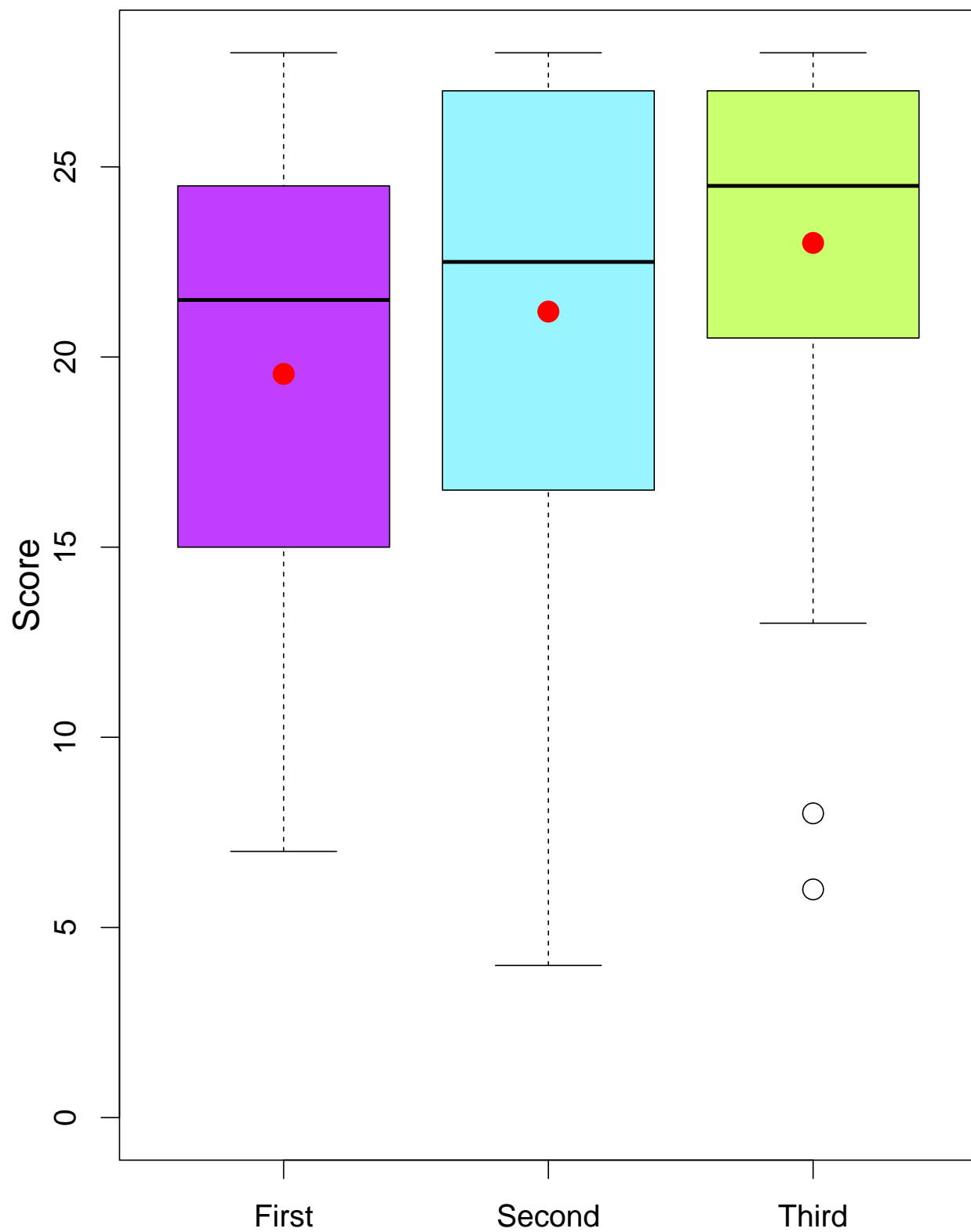




```
##      First   Second   Third
## 21.19444 22.75000 23.55556
```

```
## Tukey multiple comparisons of means
```

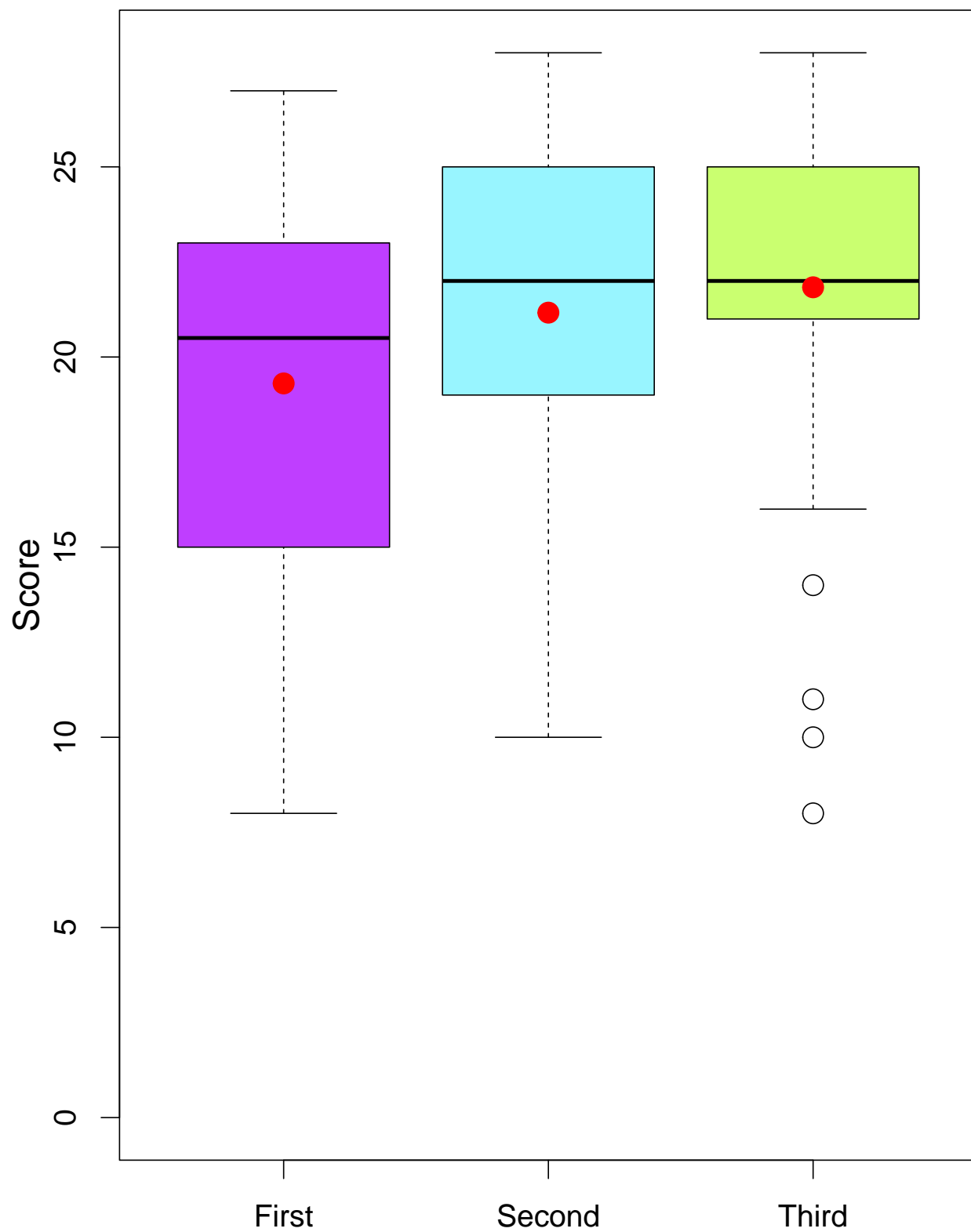
```
##      95% family-wise confidence level
##
## Fit: aov(formula = traits_dfs_df[[dimension]] ~ est.ce.votre.premiere..deuxieme.ou.troisieme.experie
##
## $est.ce.votre.premiere..deuxieme.ou.troisieme.experience..
##              diff          lwr          upr          p adj
## Première-Deuxième -1.5555556 -4.2608464  1.149735  0.3618884
## Troisième-Deuxième  0.8055556 -1.8997353  3.510846  0.7593580
## Troisième-Première  2.3611111 -0.3441798  5.066402  0.1000062
```



```
##      First   Second   Third  
## 19.55556 21.19444 23.00000
```

```
##      Tukey multiple comparisons of means
```

```
##      95% family-wise confidence level
##
## Fit: aov(formula = traits_dfs_df[[dimension]] ~ est.ce.votre.premiere..deuxieme.ou.troisieme.experie
##
## $est.ce.votre.premiere..deuxieme.ou.troisieme.experience..
##              diff          lwr          upr          p adj
## Première-Deuxième -1.638889 -5.081266389  1.803489  0.4967140
## Troisième-Deuxième  1.805556 -1.636821944  5.247933  0.4284290
## Troisième-Première  3.444444  0.002066944  6.886822  0.0498271
```

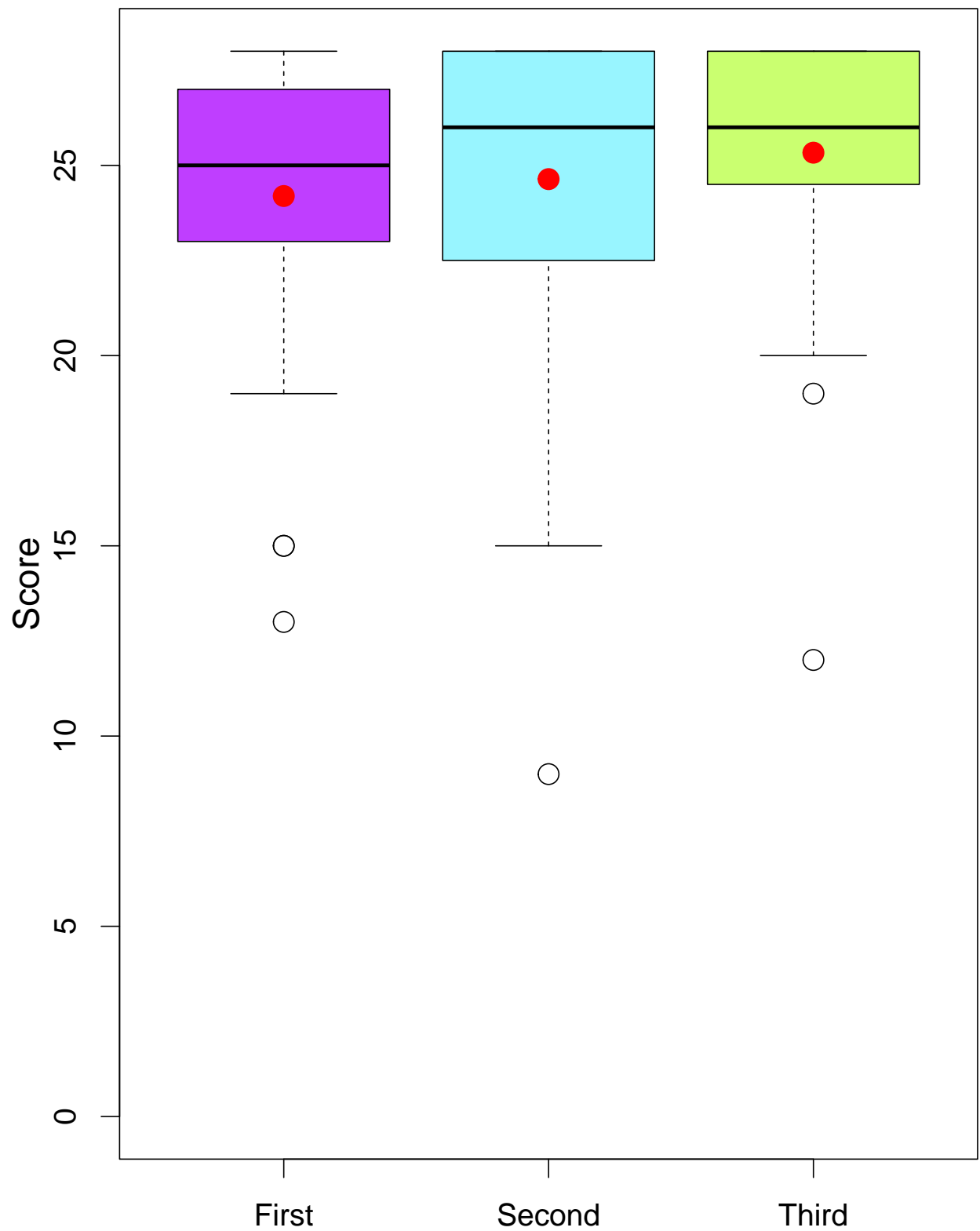


```
##      First   Second   Third
## 19.30556 21.16667 21.83333
```

```
##      Tukey multiple comparisons of means
```

```
##      95% family-wise confidence level
##
## Fit: aov(formula = traits_dfs_df[[dimension]] ~ est.ce.votre.premiere..deuxieme.ou.troisieme.experie
##
## $est.ce.votre.premiere..deuxieme.ou.troisieme.experience..
##              diff          lwr          upr          p adj
## Première-Deuxième -1.8611111 -4.6353646  0.9131424  0.2523506
## Troisième-Deuxième  0.6666667 -2.1075868  3.4409201  0.8356768
## Troisième-Première  2.5277778 -0.2464757  5.3020313  0.0818423
```





```
##      First   Second   Third
## 24.19444 24.63889 25.33333
```

```
##      Tukey multiple comparisons of means
```

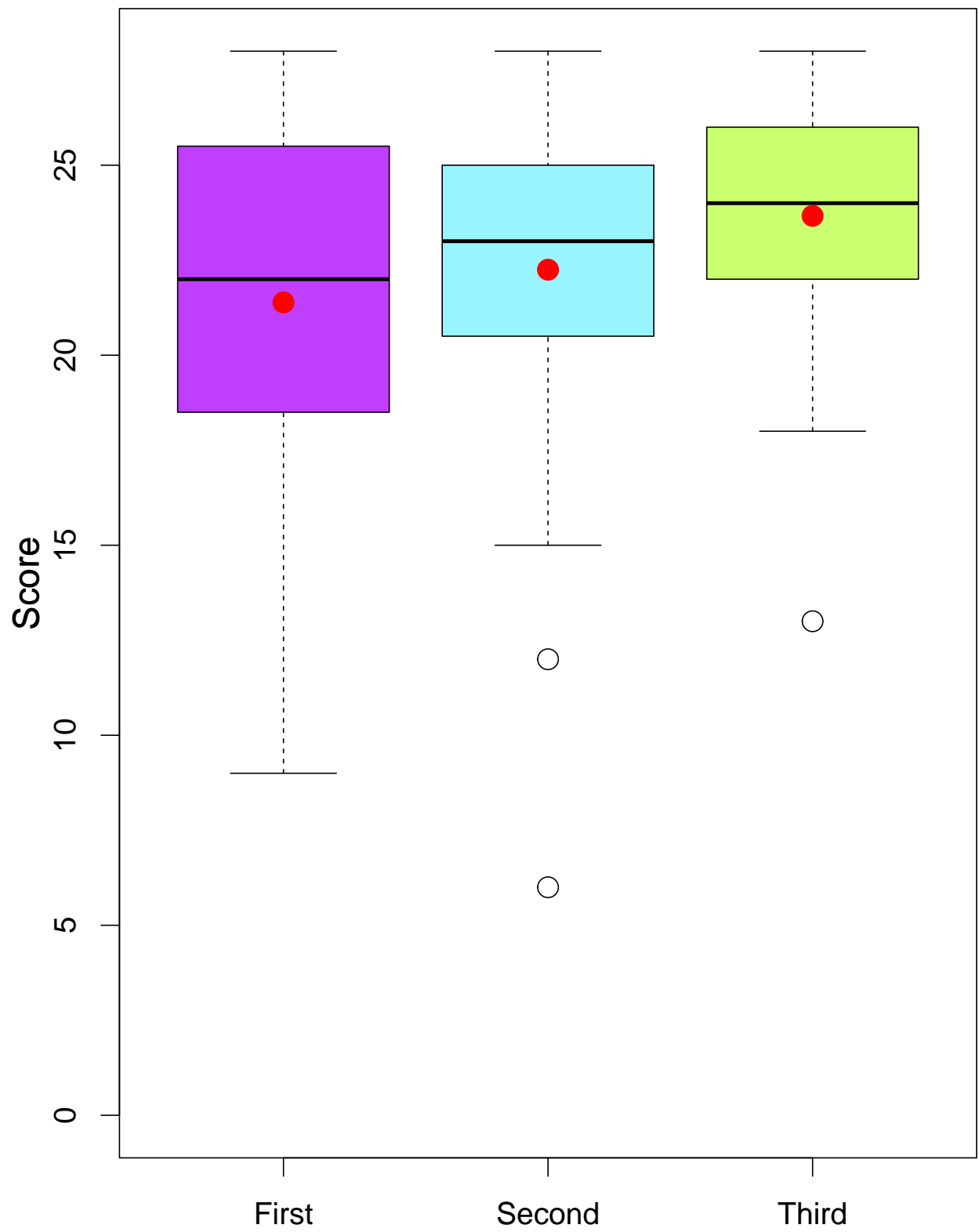
```

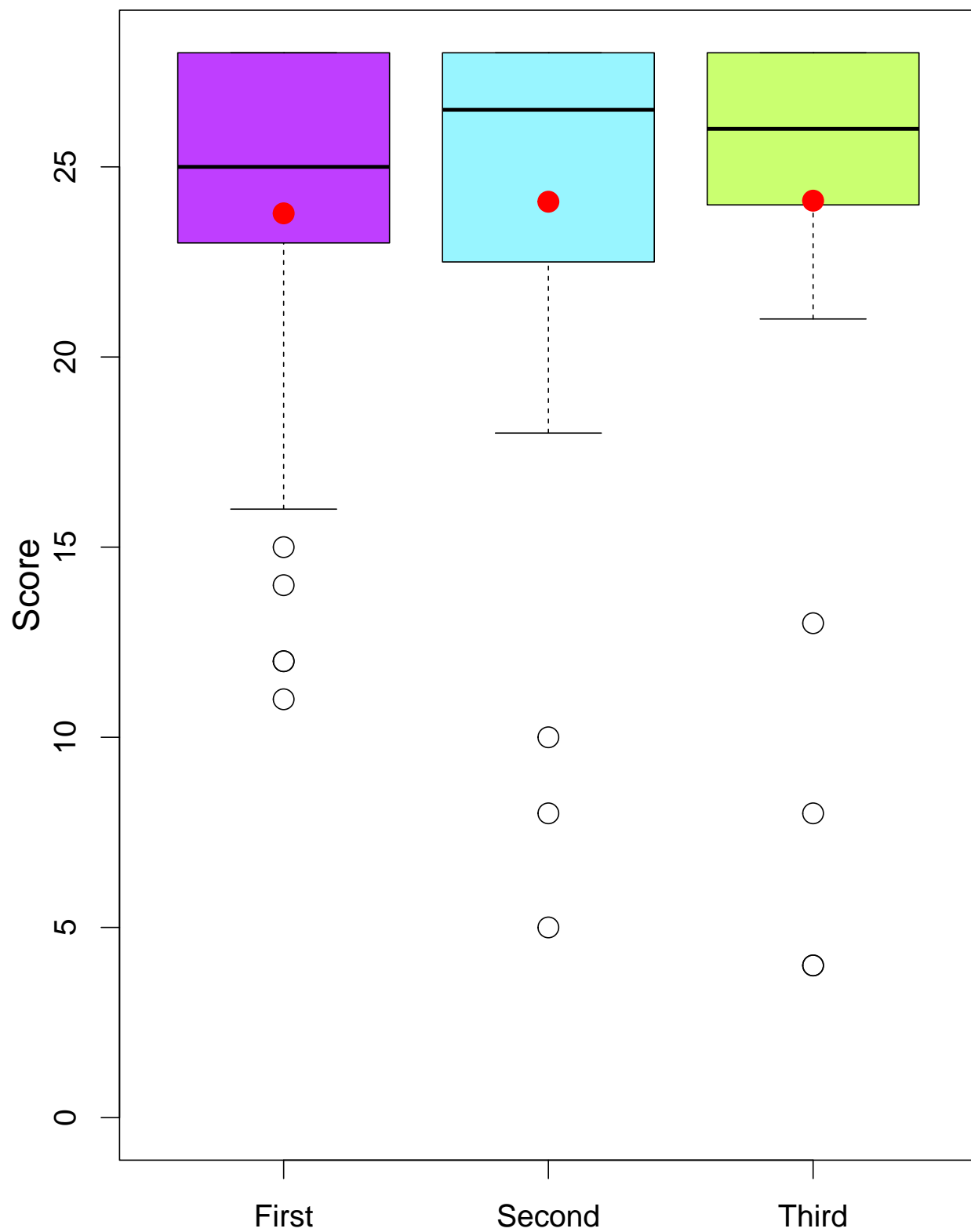
##      95% family-wise confidence level
##
## Fit: aov(formula = traits_dfs_df[[dimension]] ~ est.ce.votre.premiere..deuxieme.ou.troisieme.experien
##
## $est.ce.votre.premiere..deuxieme.ou.troisieme.experience..
##           diff           lwr           upr           p adj
## Première-Deuxième -0.4444444 -2.601540  1.712651  0.8762957
## Troisième-Deuxième  0.6944444 -1.462651  2.851540  0.7250064
## Troisième-Première  1.1388889 -1.018207  3.295984  0.4236956

##      First      Second      Third
## 21.38889 22.25000 23.66667

##      Tukey multiple comparisons of means
##      95% family-wise confidence level
##
## Fit: aov(formula = traits_dfs_df[[dimension]] ~ est.ce.votre.premiere..deuxieme.ou.troisieme.experien
##
## $est.ce.votre.premiere..deuxieme.ou.troisieme.experience..
##           diff           lwr           upr           p adj
## Première-Deuxième -0.8611111 -3.4057838  1.683562  0.7010720
## Troisième-Deuxième  1.4166667 -1.1280060  3.961339  0.3853542
## Troisième-Première  2.2777778 -0.2668949  4.822450  0.0890756

```

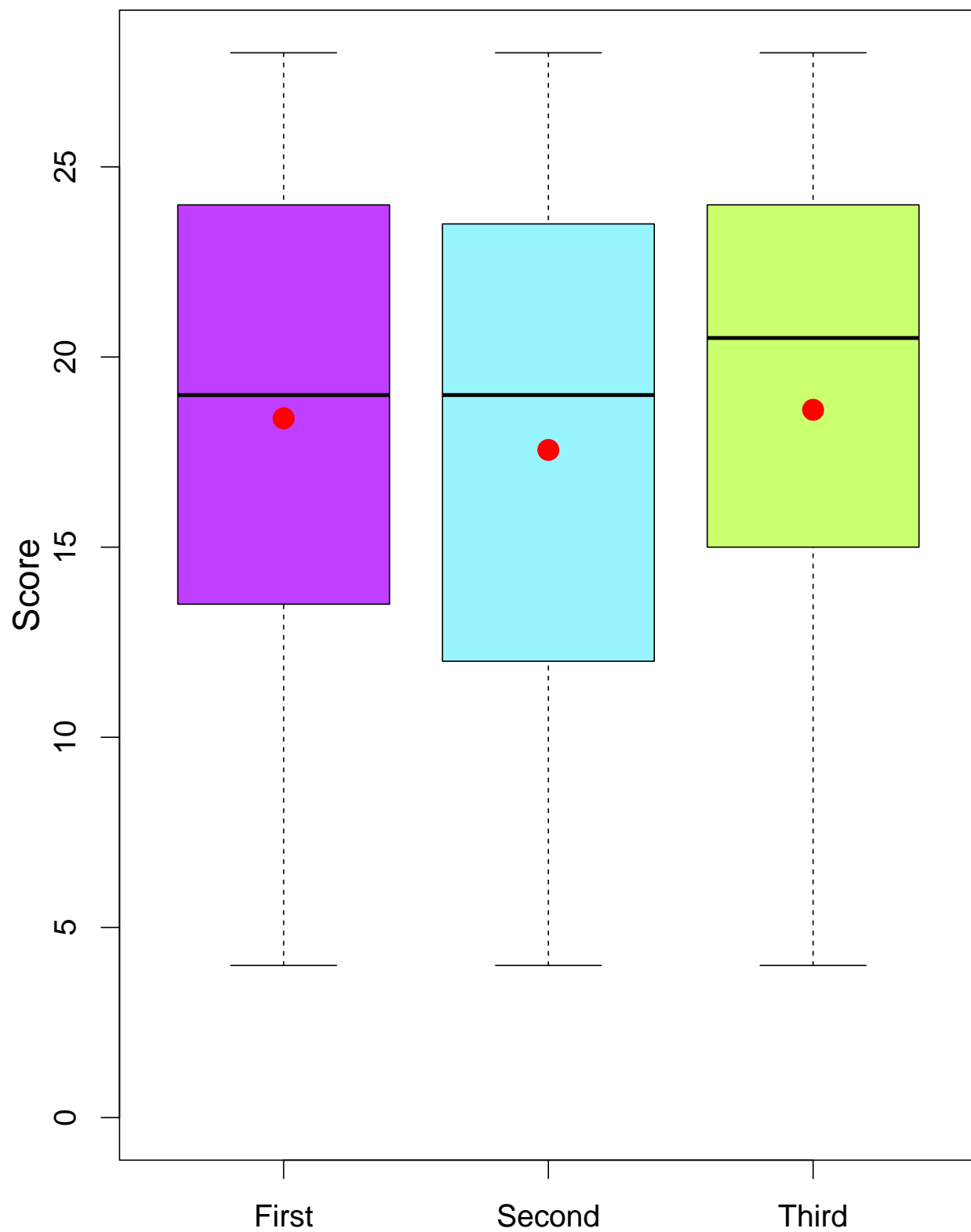




```
##      First   Second   Third
## 23.77778 24.08333 24.11111
```

```
##      Tukey multiple comparisons of means
```

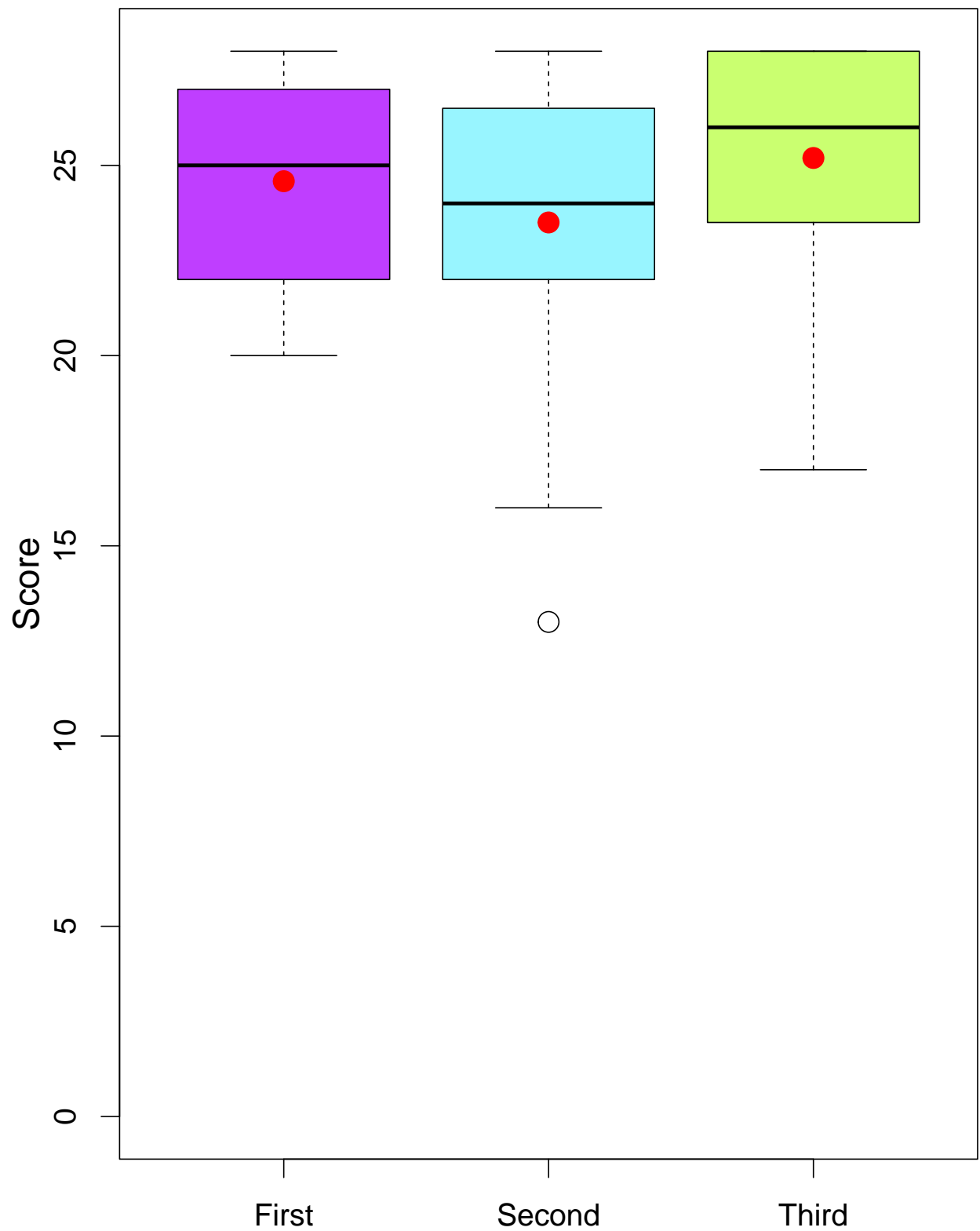
```
##      95% family-wise confidence level
##
## Fit: aov(formula = traits_dfs_df[[dimension]] ~ est.ce.votre.premiere..deuxieme.ou.troisieme.experie
##
## $est.ce.votre.premiere..deuxieme.ou.troisieme.experience..
##              diff          lwr          upr          p adj
## Première-Deuxième -0.30555556 -3.620476  3.009365  0.9738806
## Troisième-Deuxième  0.02777778 -3.287143  3.342698  0.9997812
## Troisième-Première  0.33333333 -2.981587  3.648254  0.9689956
```



```
##      First   Second   Third  
## 18.38889 17.55556 18.61111
```

```
##      Tukey multiple comparisons of means
```

```
##      95% family-wise confidence level
##
## Fit: aov(formula = traits_dfs_df[[dimension]] ~ est.ce.votre.premiere..deuxieme.ou.troisieme.experie
##
## $est.ce.votre.premiere..deuxieme.ou.troisieme.experience..
##              diff      lwr      upr      p adj
## Première-Deuxième  0.8333333 -3.336415  5.003082  0.8831554
## Troisième-Deuxième  1.0555556 -3.114193  5.225304  0.8194197
## Troisième-Première  0.2222222 -3.947526  4.391971  0.9911895
```

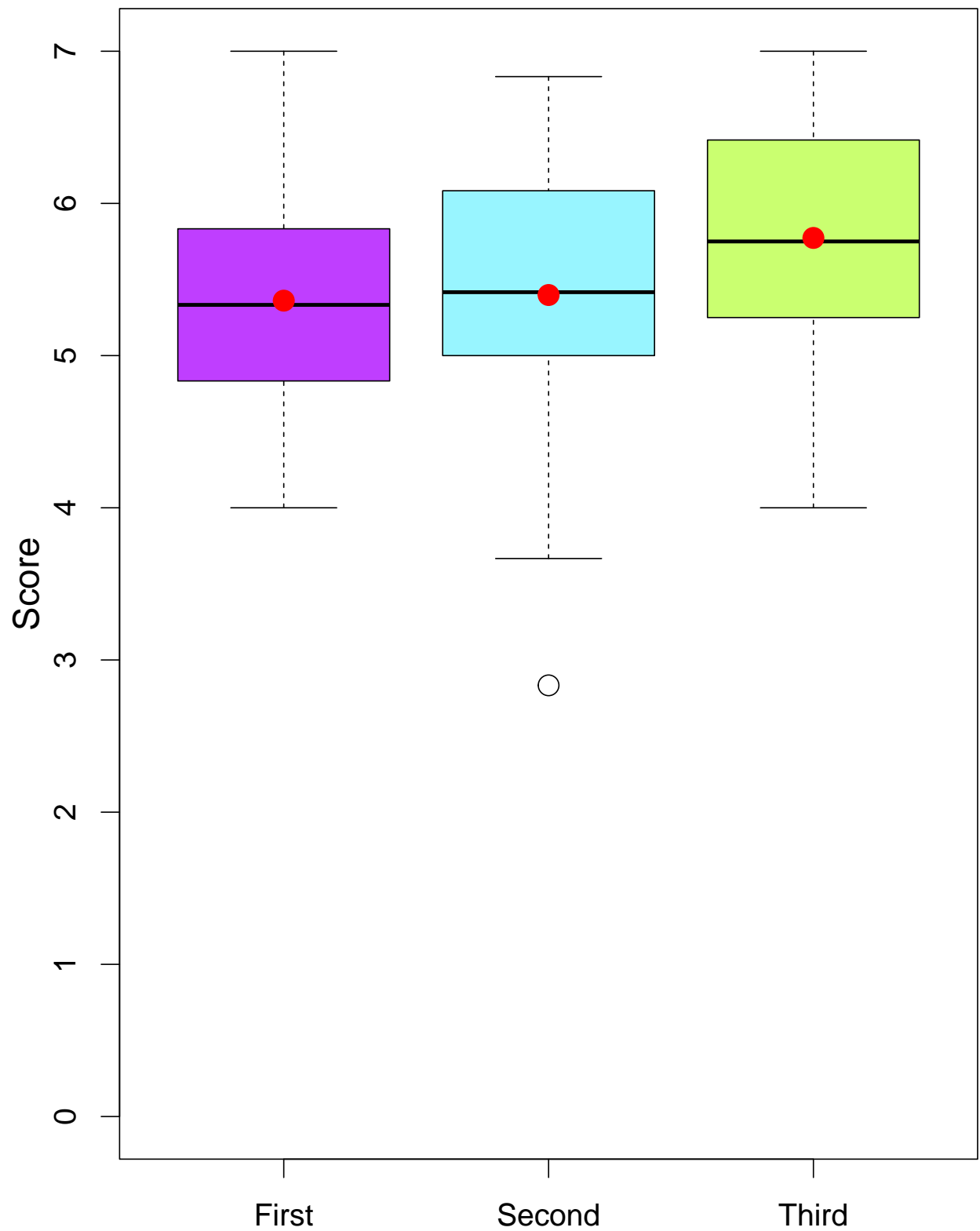


```
##      First   Second   Third  
## 24.58333 23.50000 25.19444
```

```
## Tukey multiple comparisons of means
```



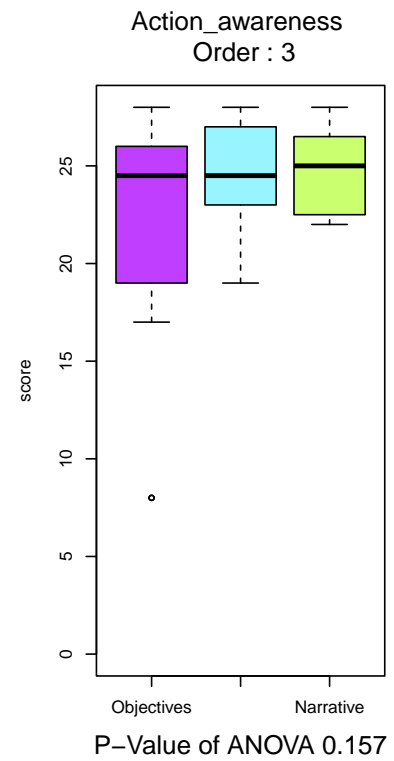
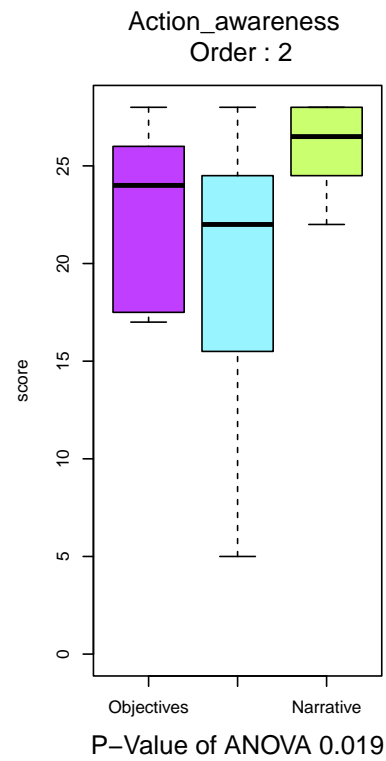
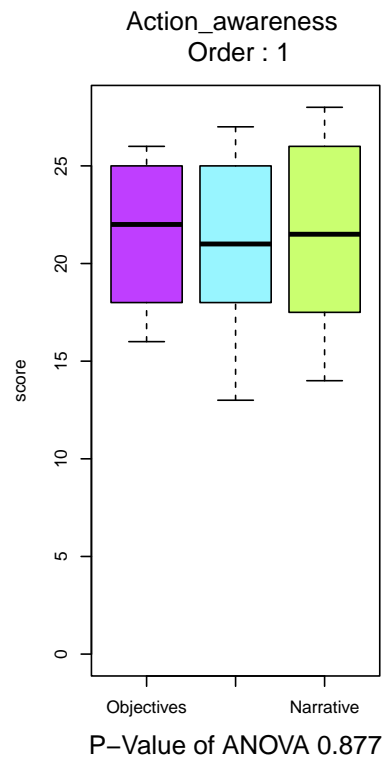
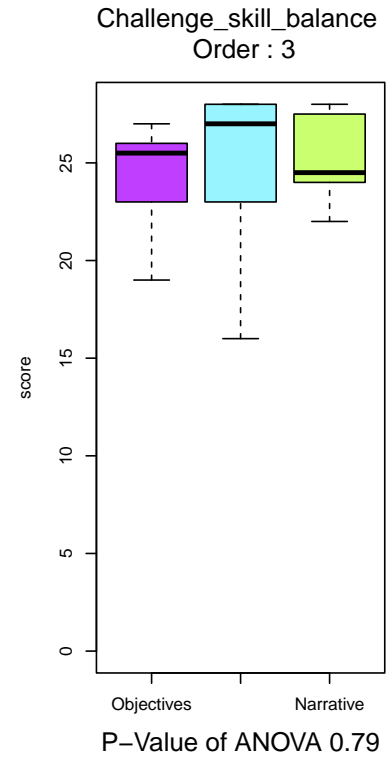
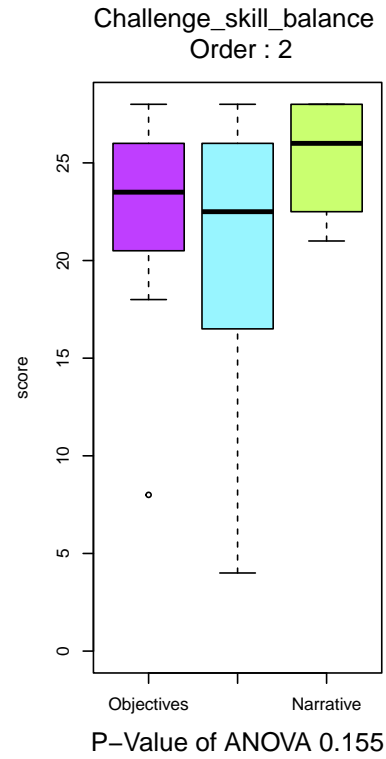
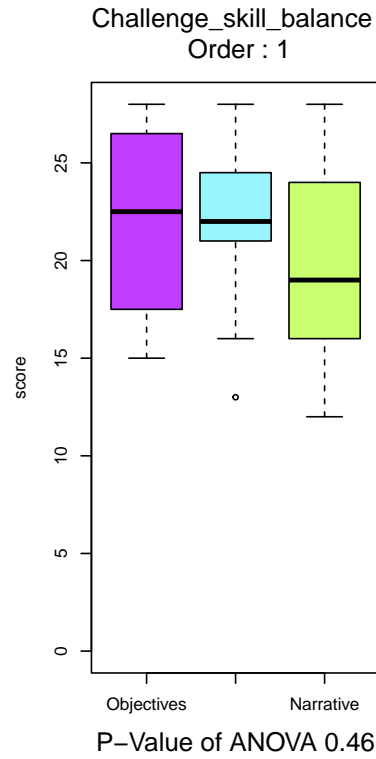
```
##      95% family-wise confidence level
##
## Fit: aov(formula = traits_dfs_df[[dimension]] ~ est.ce.votre.premiere..deuxieme.ou.troisieme.experie
##
## $est.ce.votre.premiere..deuxieme.ou.troisieme.experience..
##              diff          lwr          upr          p adj
## Première-Deuxième  1.0833333 -0.69490393  2.861571  0.3201006
## Troisième-Deuxième  1.6944444 -0.08379282  3.472682  0.0652571
## Troisième-Première  0.6111111 -1.16712615  2.389348  0.6933471
```

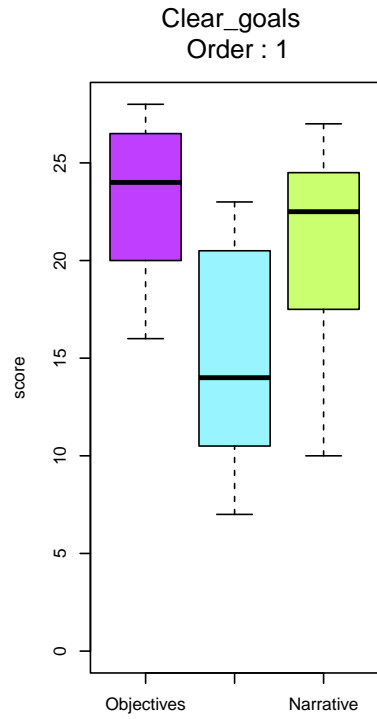


```
##      First   Second   Third  
## 5.361111 5.398148 5.773148
```

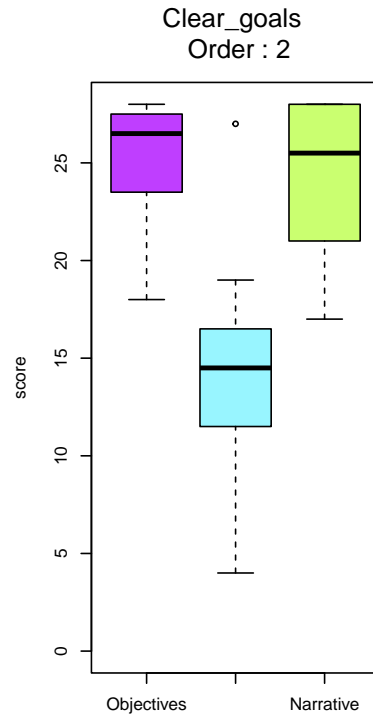
```
## Tukey multiple comparisons of means
```

```
##      95% family-wise confidence level
##
## Fit: aov(formula = traits_dfs_df[[dimension]] ~ est.ce.votre.premiere..deuxieme.ou.troisieme.experie
##
## $est.ce.votre.premiere..deuxieme.ou.troisieme.experience..
##              diff          lwr          upr          p adj
## Première-Deuxième -0.03703704 -0.47960523  0.4055312  0.9784189
## Troisième-Deuxième  0.37500000 -0.06756819  0.8175682  0.1137394
## Troisième-Première  0.41203704 -0.03053115  0.8546052  0.0735611
```

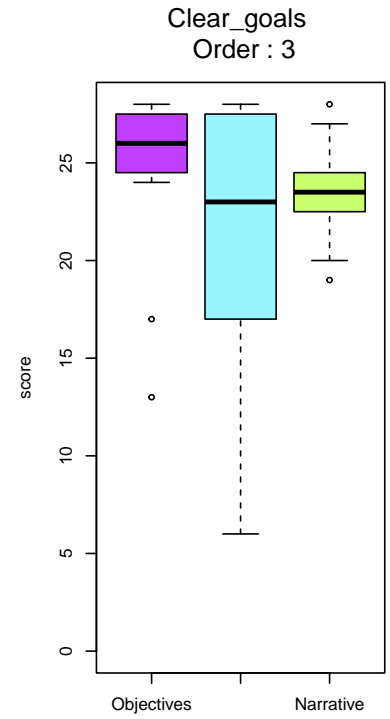




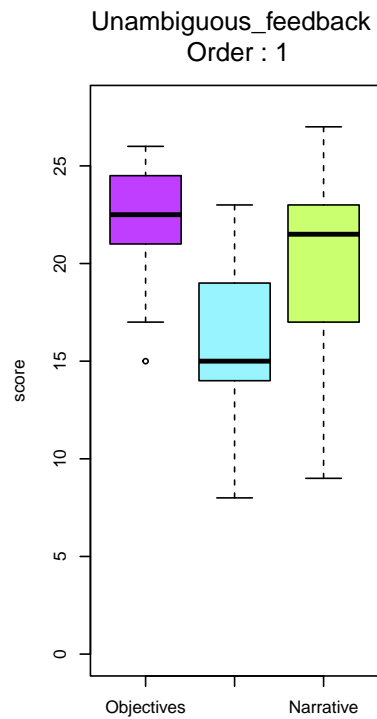
P-Value of ANOVA 0.002



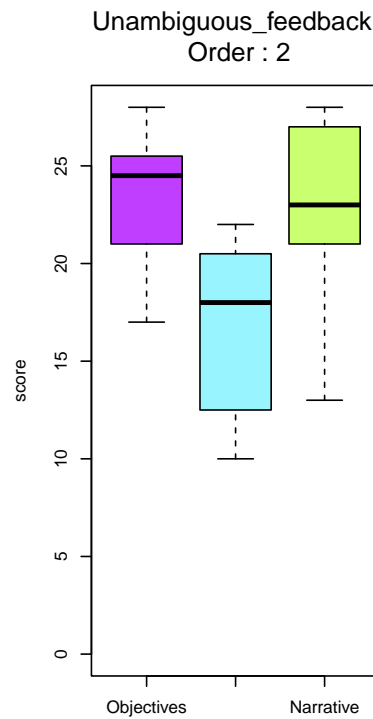
P-Value of ANOVA 0



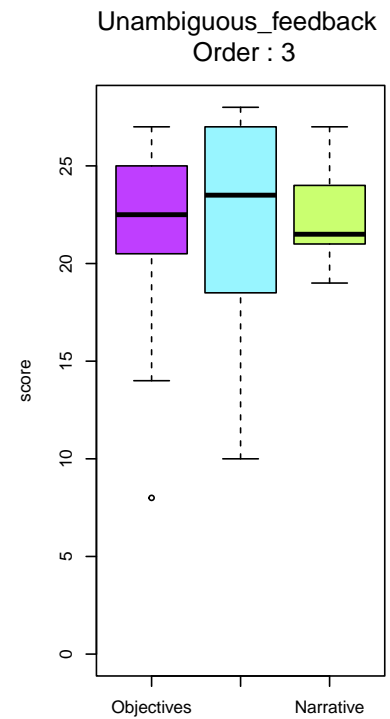
P-Value of ANOVA 0.254



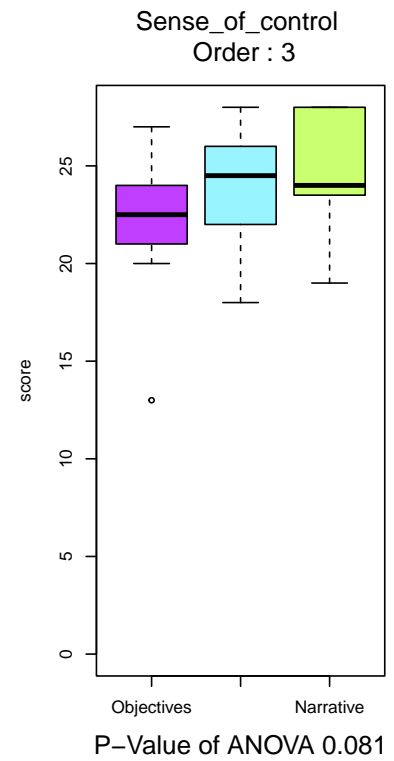
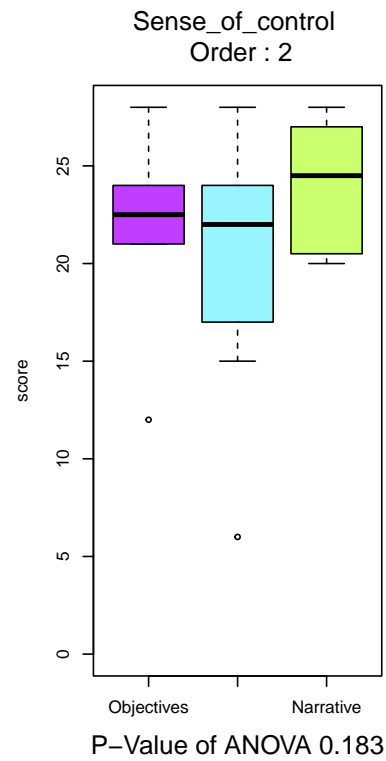
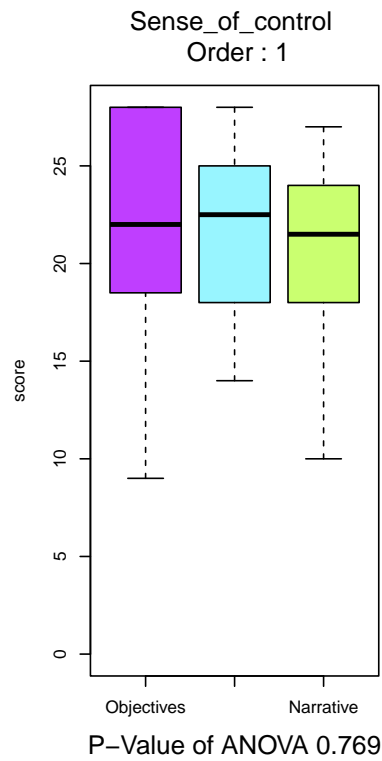
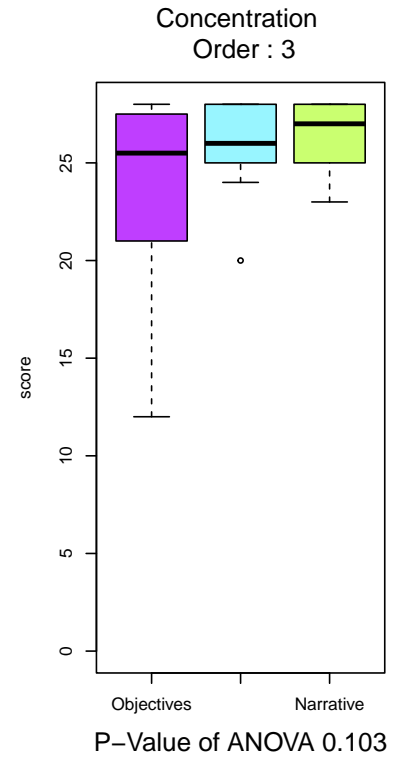
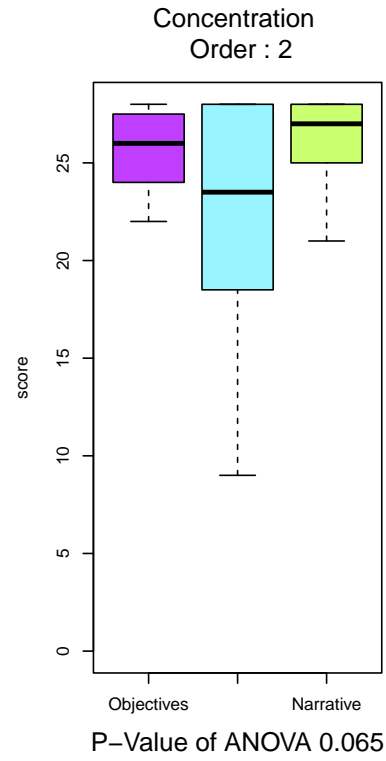
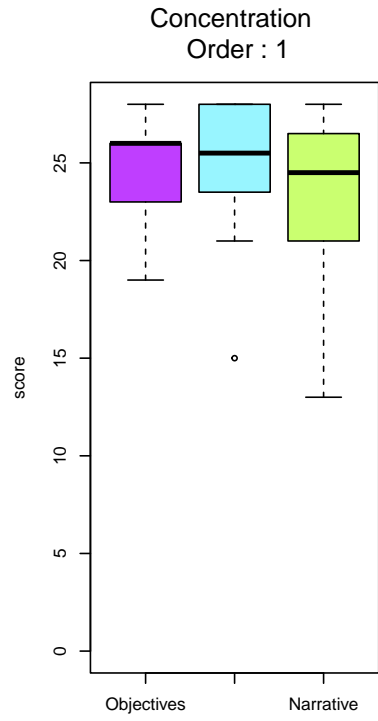
P-Value of ANOVA 0.003

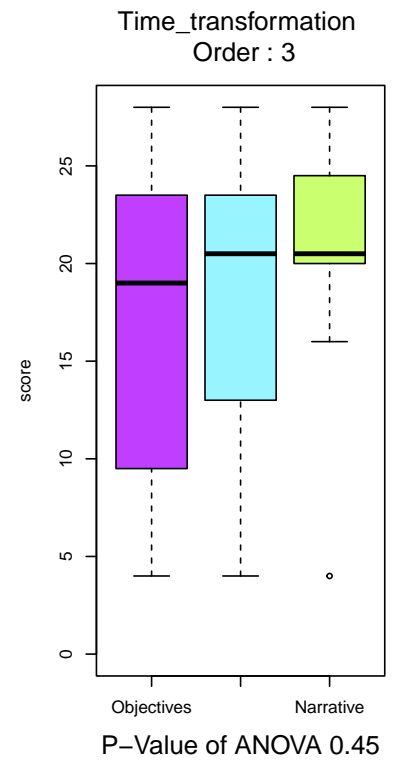
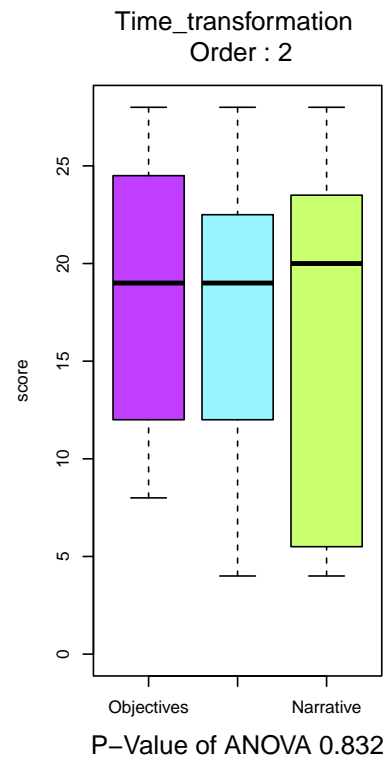
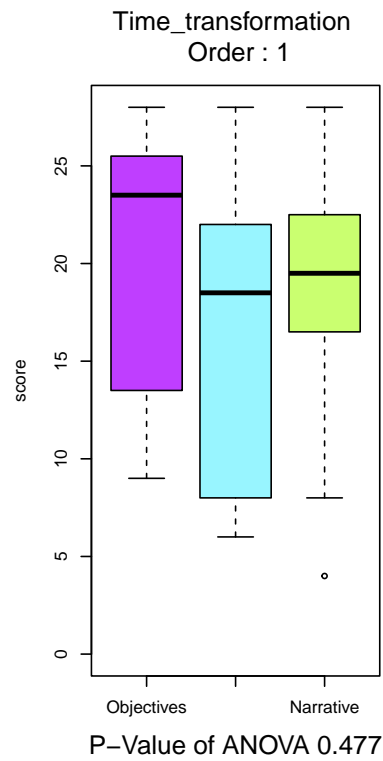
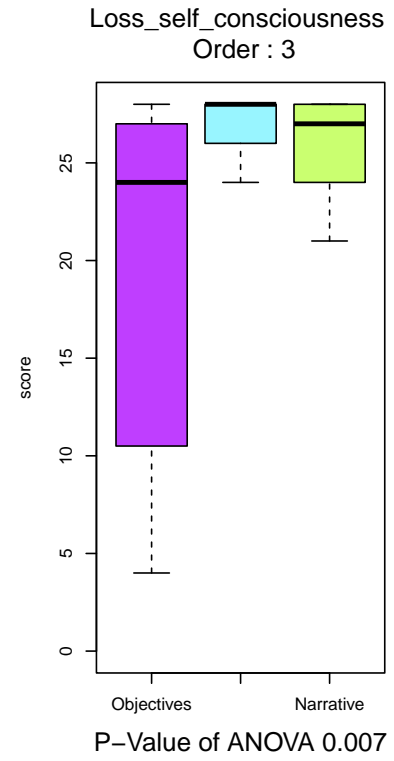
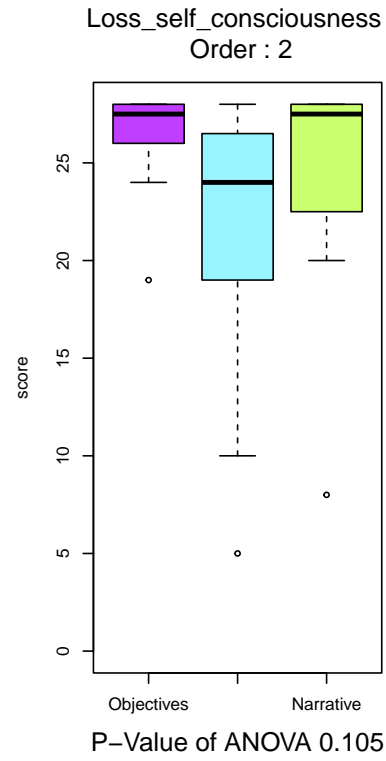
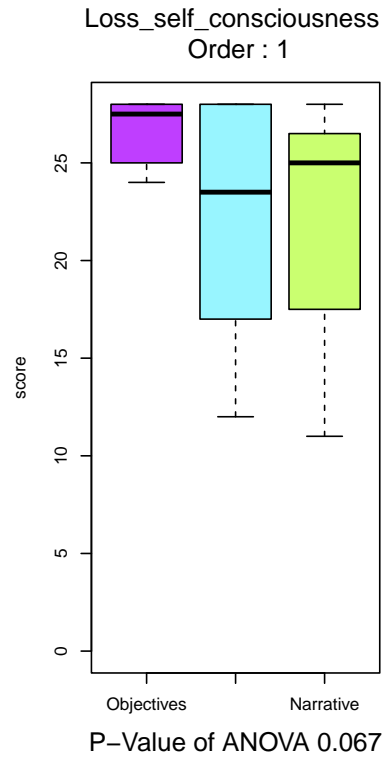


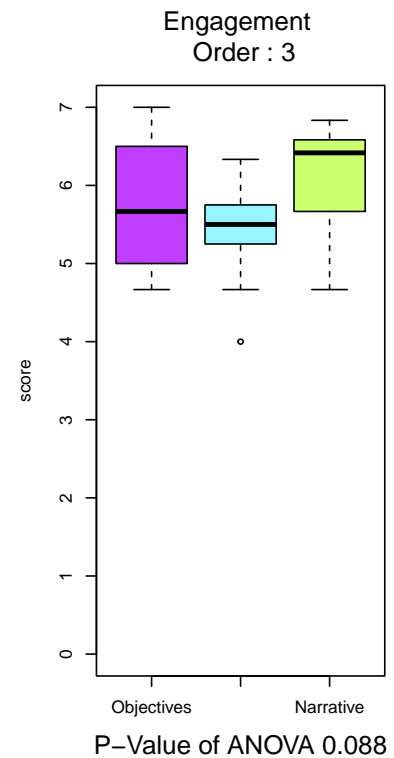
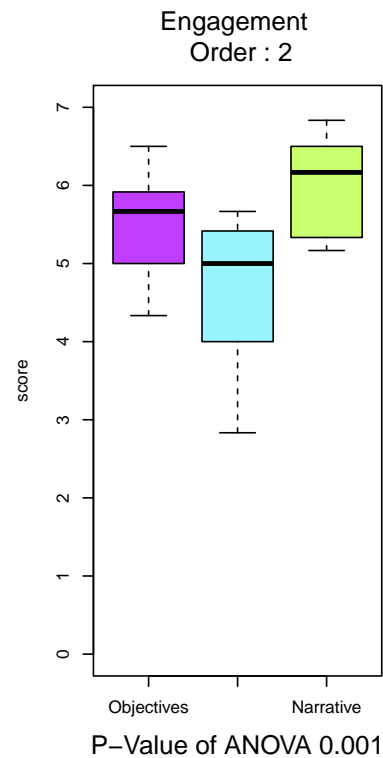
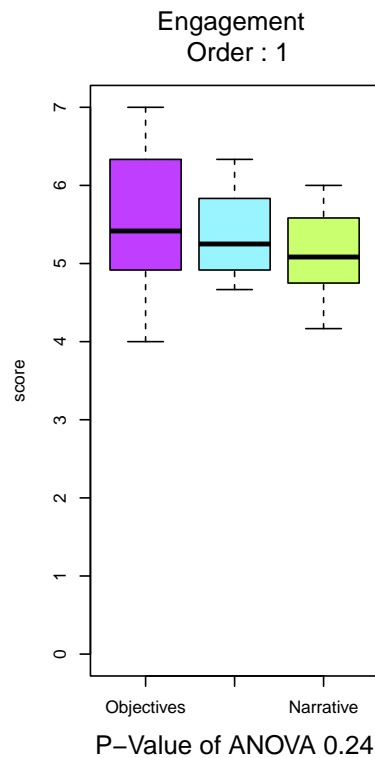
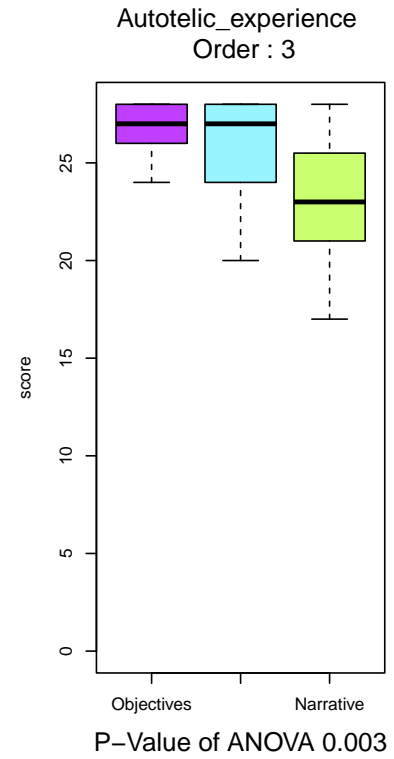
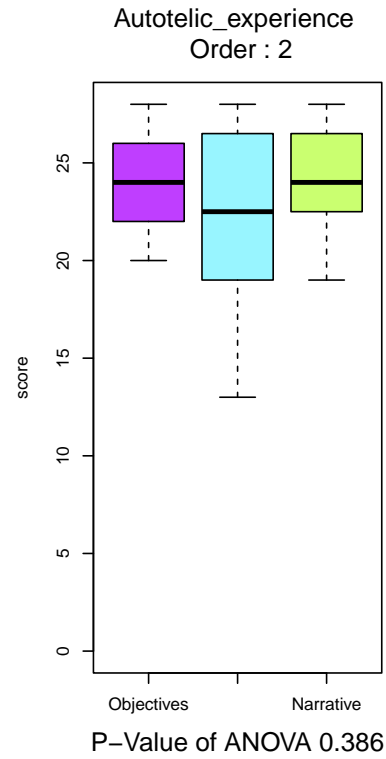
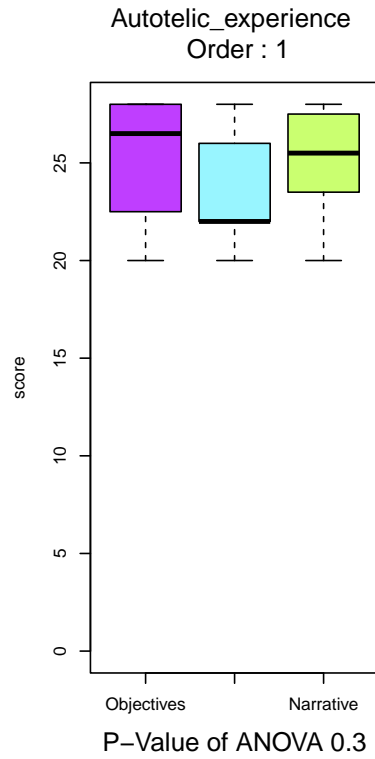
P-Value of ANOVA 0



P-Value of ANOVA 0.902







```
##      First      Second      Third
## 21.91667 20.91667 24.75000
```

```
## NULL
```



```
##      First      Second      Third
## 19.91667 25.16667 25.25000
```

```
## NULL
```

```
##      First      Second      Third
## 22.08333 22.33333 24.33333
```

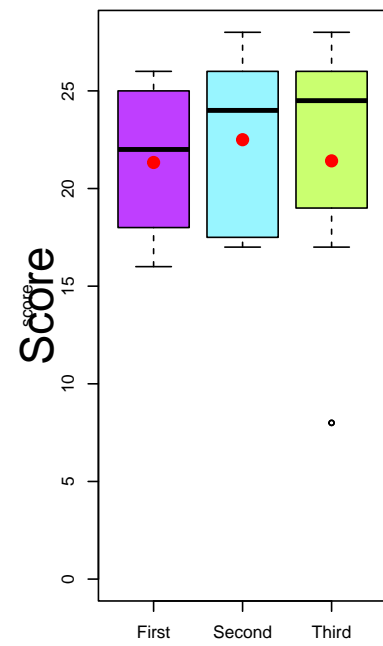
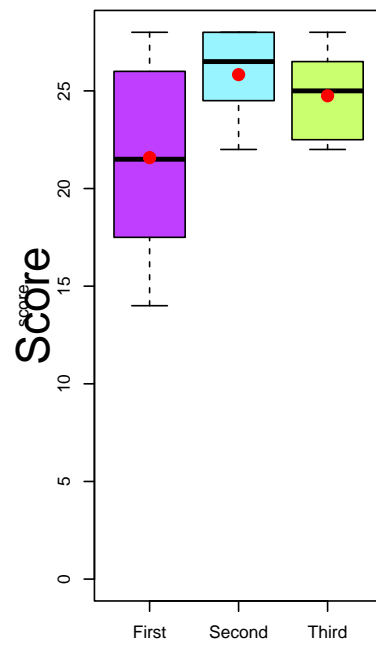
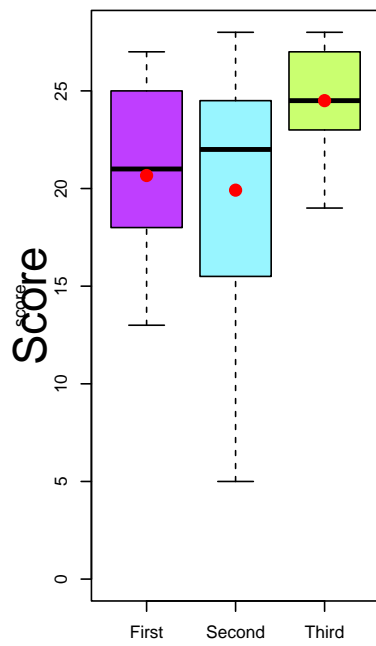
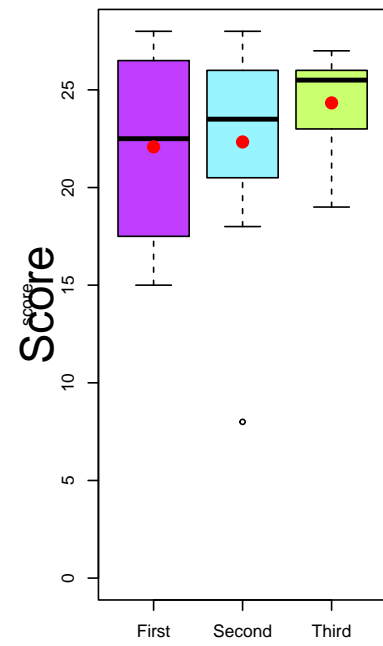
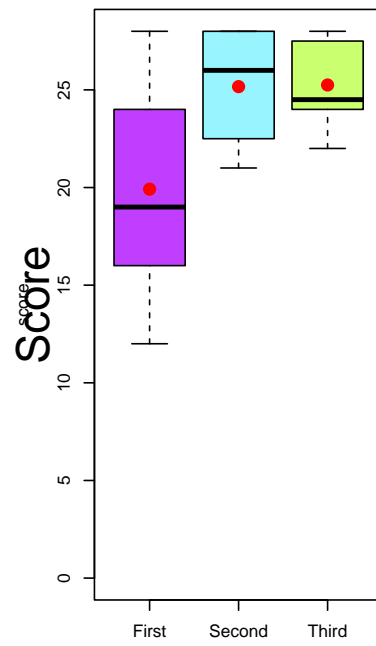
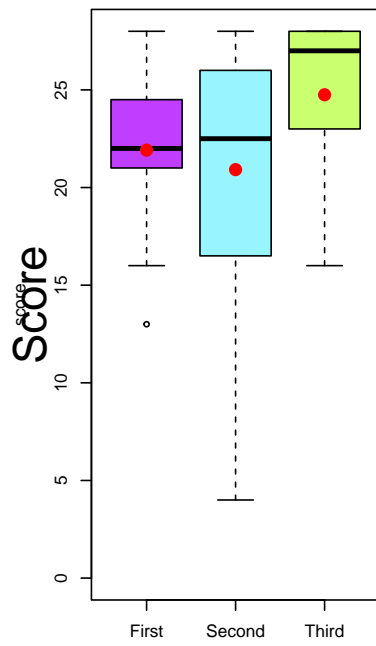
```
## NULL
```

```
##      First      Second      Third
## 20.66667 19.91667 24.50000
```

```
## NULL
```

```
##      First      Second      Third
## 21.58333 25.83333 24.75000
```

```
## NULL
```



```
##      First      Second      Third
## 21.33333 22.50000 21.41667
```

```
## NULL
```

```
##      First      Second      Third
## 15.00000 14.08333 20.91667
```

```
## NULL
```

```
##      First      Second      Third
## 20.66667 24.33333 23.50000
```

```
## NULL
```

```
##      First      Second      Third
## 23.00000 25.16667 24.58333
```

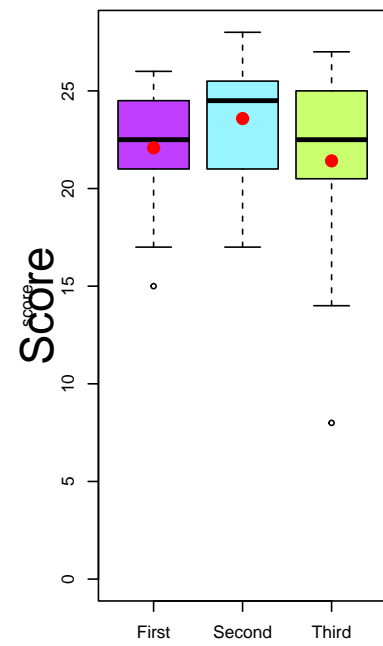
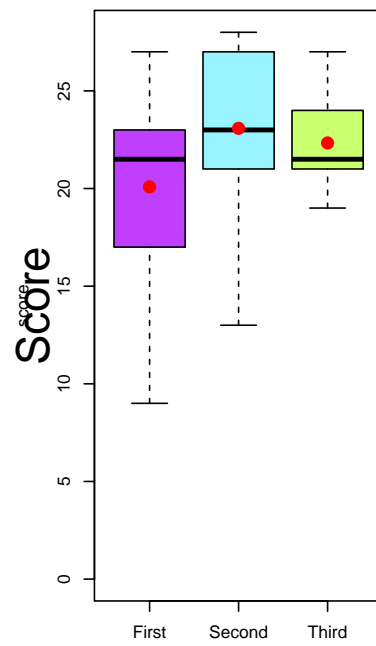
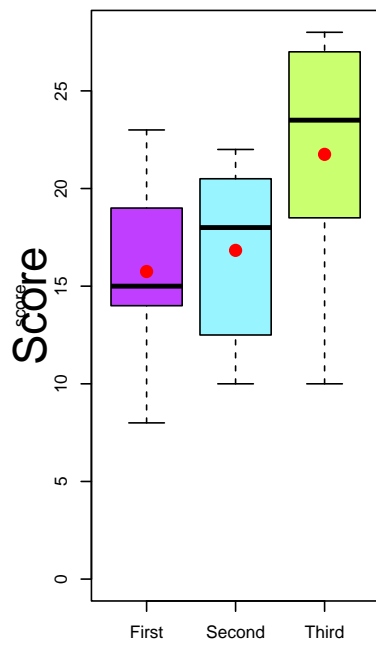
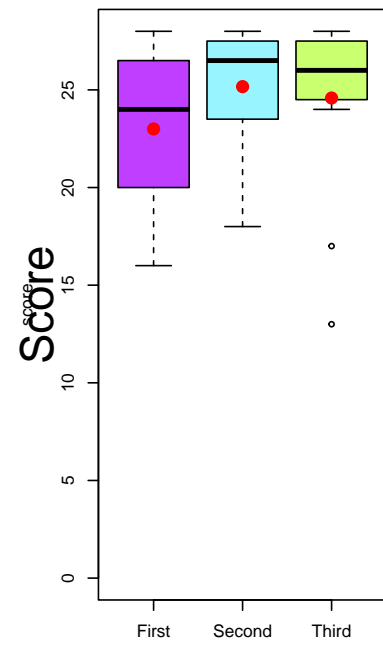
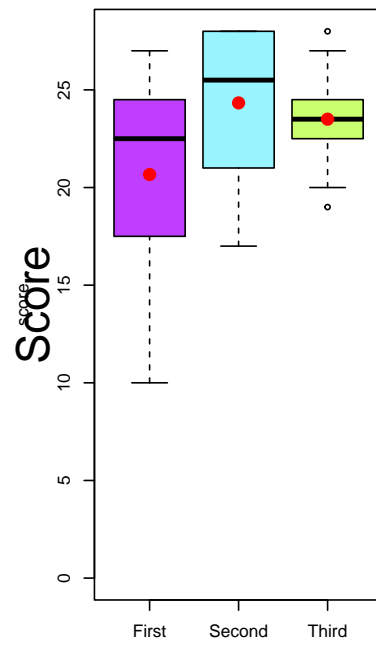
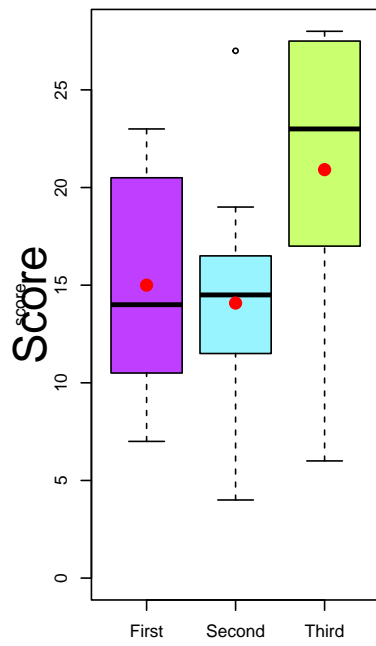
```
## NULL
```

```
##      First      Second      Third
## 15.75000 16.83333 21.75000
```

```
## NULL
```

```
##      First      Second      Third
## 20.08333 23.08333 22.33333
```

```
## NULL
```



```
##      First      Second      Third
## 22.08333 23.58333 21.41667
```

```
## NULL
```

```
##      First    Second      Third
## 24.83333 22.33333 25.91667
```

```
## NULL
```

```
##      First    Second      Third
## 23.00000 26.00000 26.41667
```

```
## NULL
```

```
##      First    Second      Third
## 24.75000 25.58333 23.66667
```

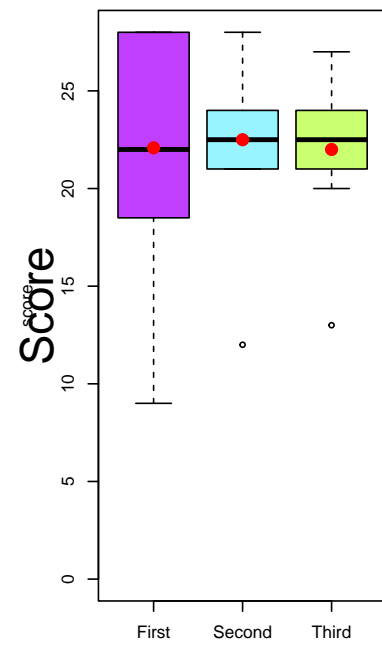
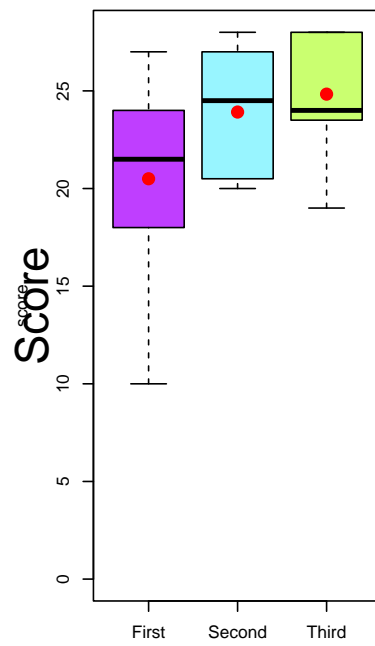
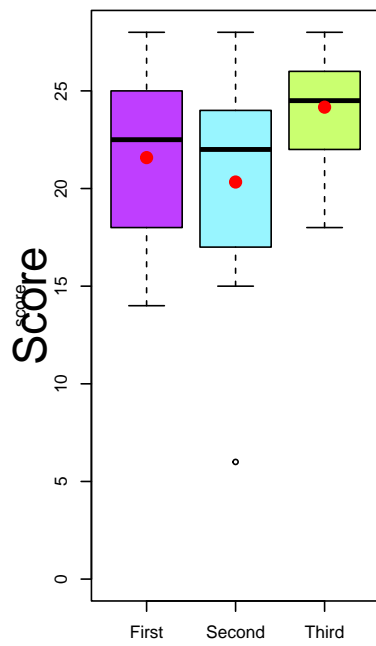
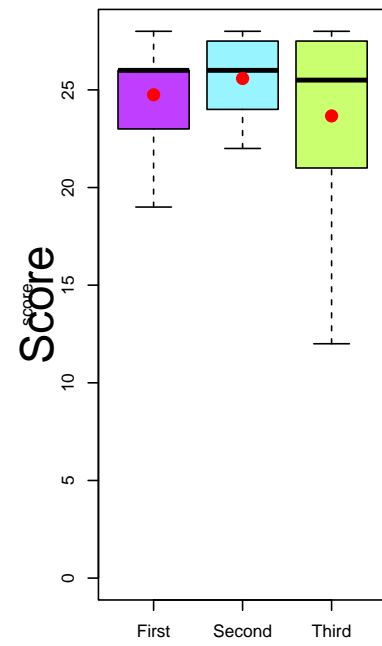
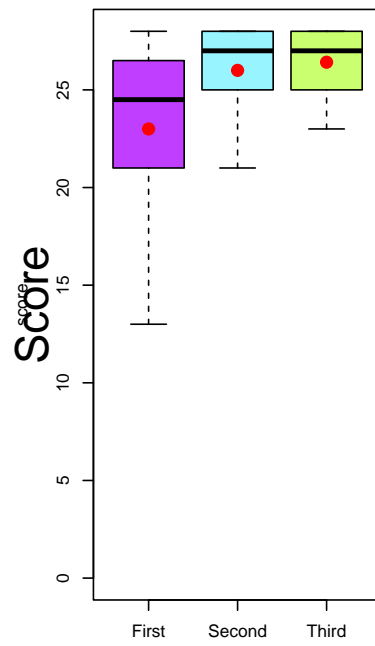
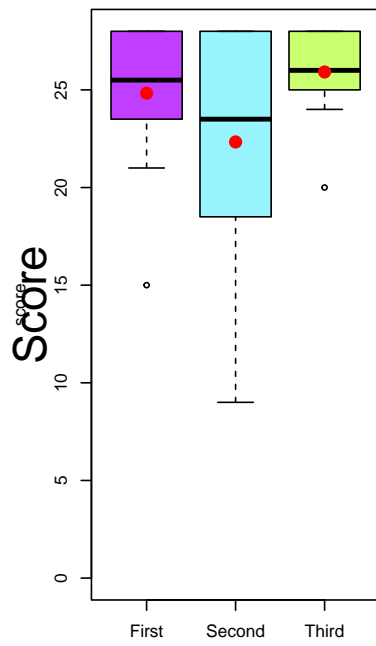
```
## NULL
```

```
##      First    Second      Third
## 21.58333 20.33333 24.16667
```

```
## NULL
```

```
##      First    Second      Third
## 20.50000 23.91667 24.83333
```

```
## NULL
```



```
##      First      Second      Third
## 22.08333 22.50000 22.00000
```

```
## NULL
```

```
##      First      Second      Third
## 22.50000 21.41667 27.00000
```

```
## NULL
```

```
##      First      Second      Third
## 22.16667 24.41667 25.83333
```

```
## NULL
```

```
##      First      Second      Third
## 26.66667 26.41667 19.50000
```

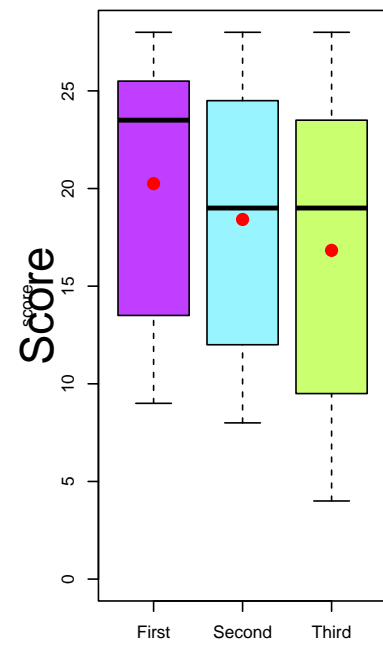
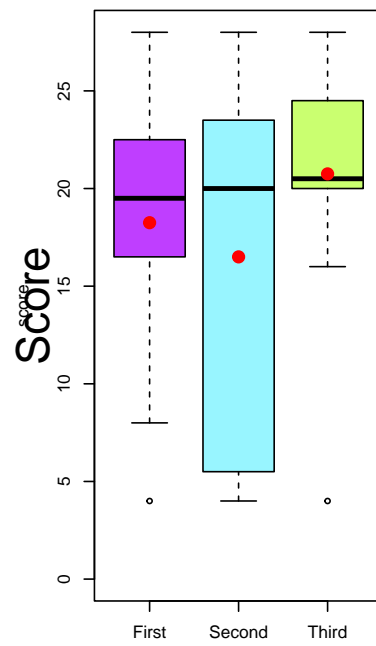
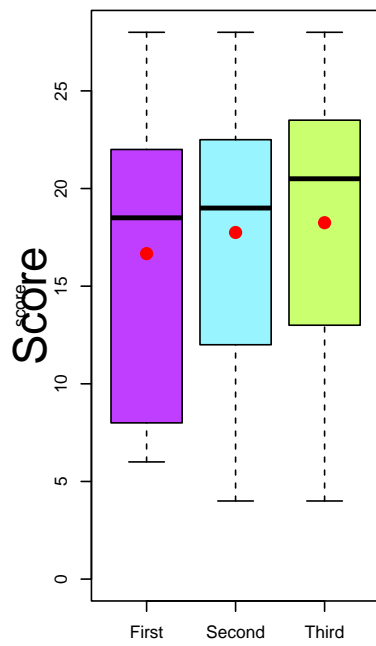
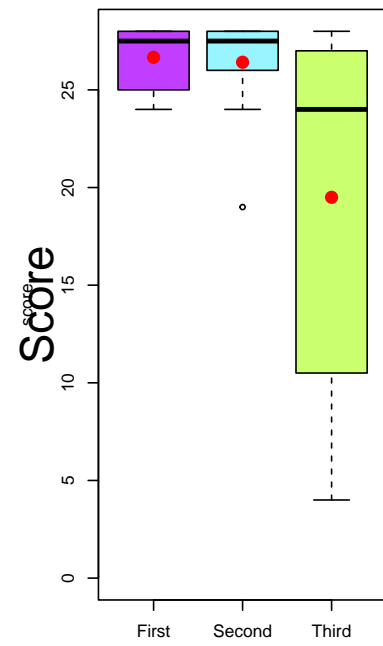
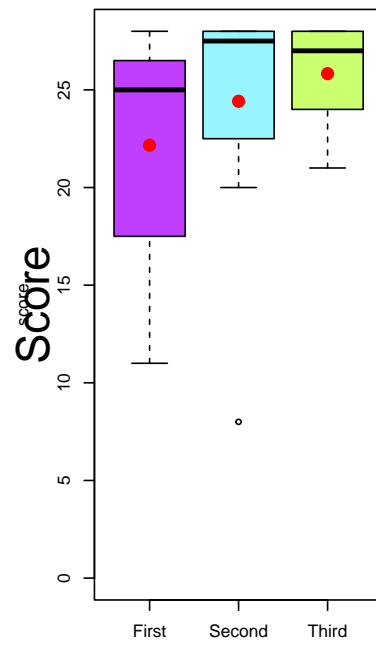
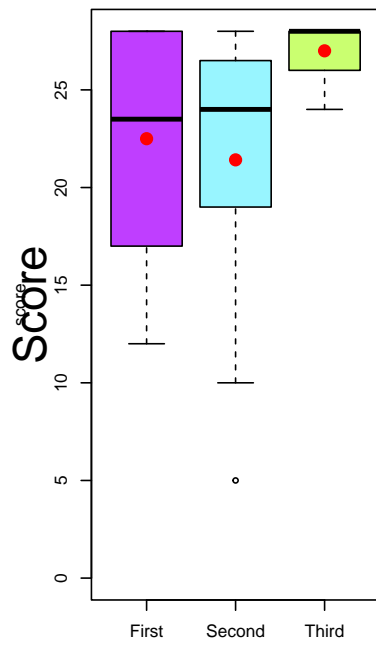
```
## NULL
```

```
##      First      Second      Third
## 16.66667 17.75000 18.25000
```

```
## NULL
```

```
##      First Second      Third
## 18.25  16.50  20.75
```

```
## NULL
```



```
##      First      Second      Third
## 20.25000 18.41667 16.83333
```

```
## NULL
```



```
##      First      Second      Third
## 23.50000 22.33333 25.75000
```

```
## NULL
```

```
##      First      Second      Third
## 25.16667 24.08333 23.00000
```

```
## NULL
```

```
##      First      Second      Third
## 25.08333 24.08333 26.83333
```

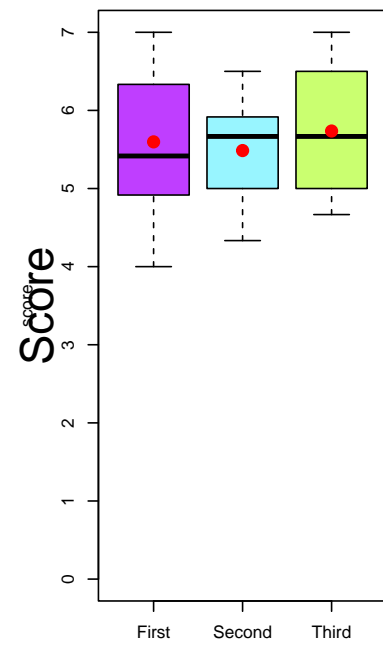
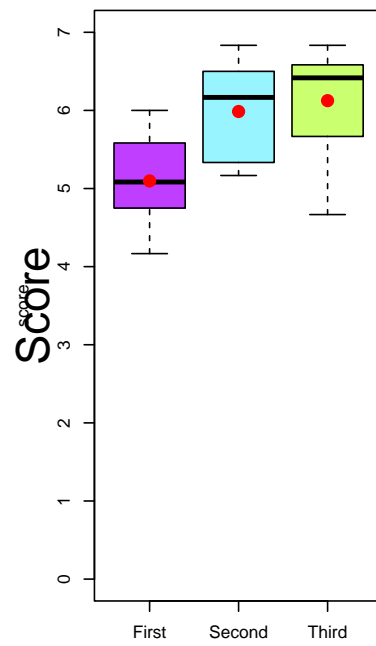
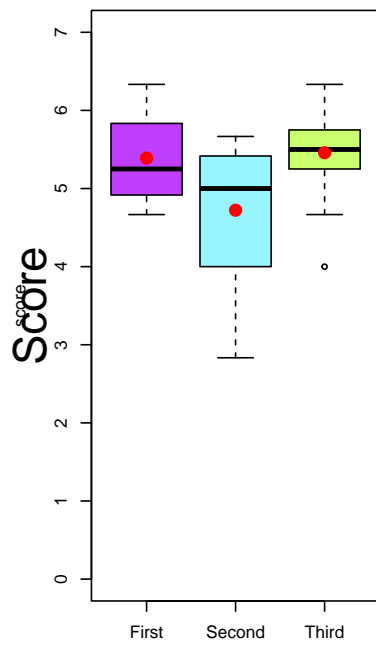
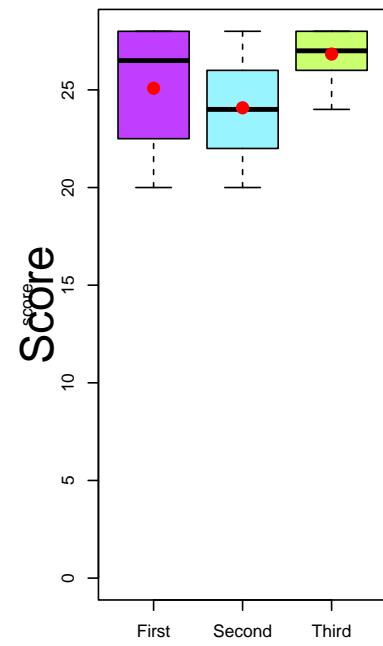
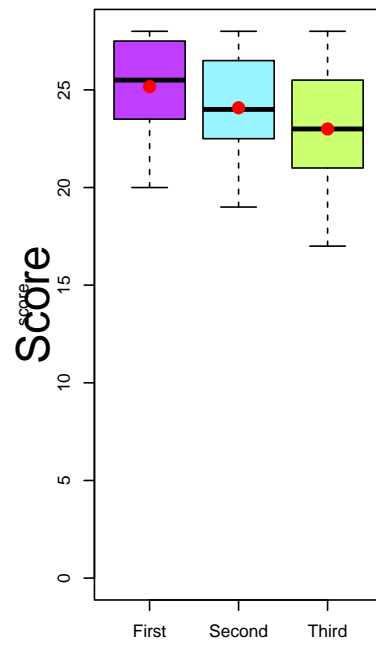
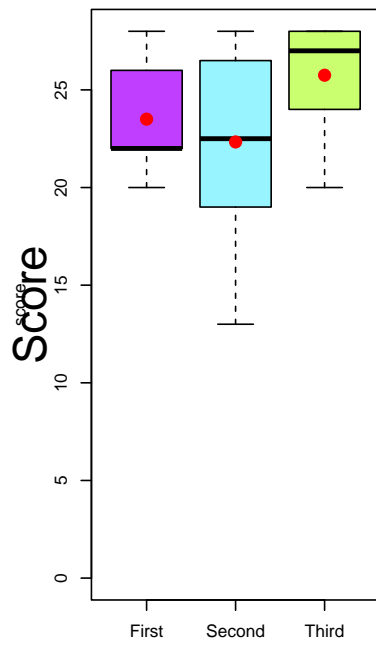
```
## NULL
```

```
##      First      Second      Third
## 5.38889 4.72222 5.45833
```

```
## NULL
```

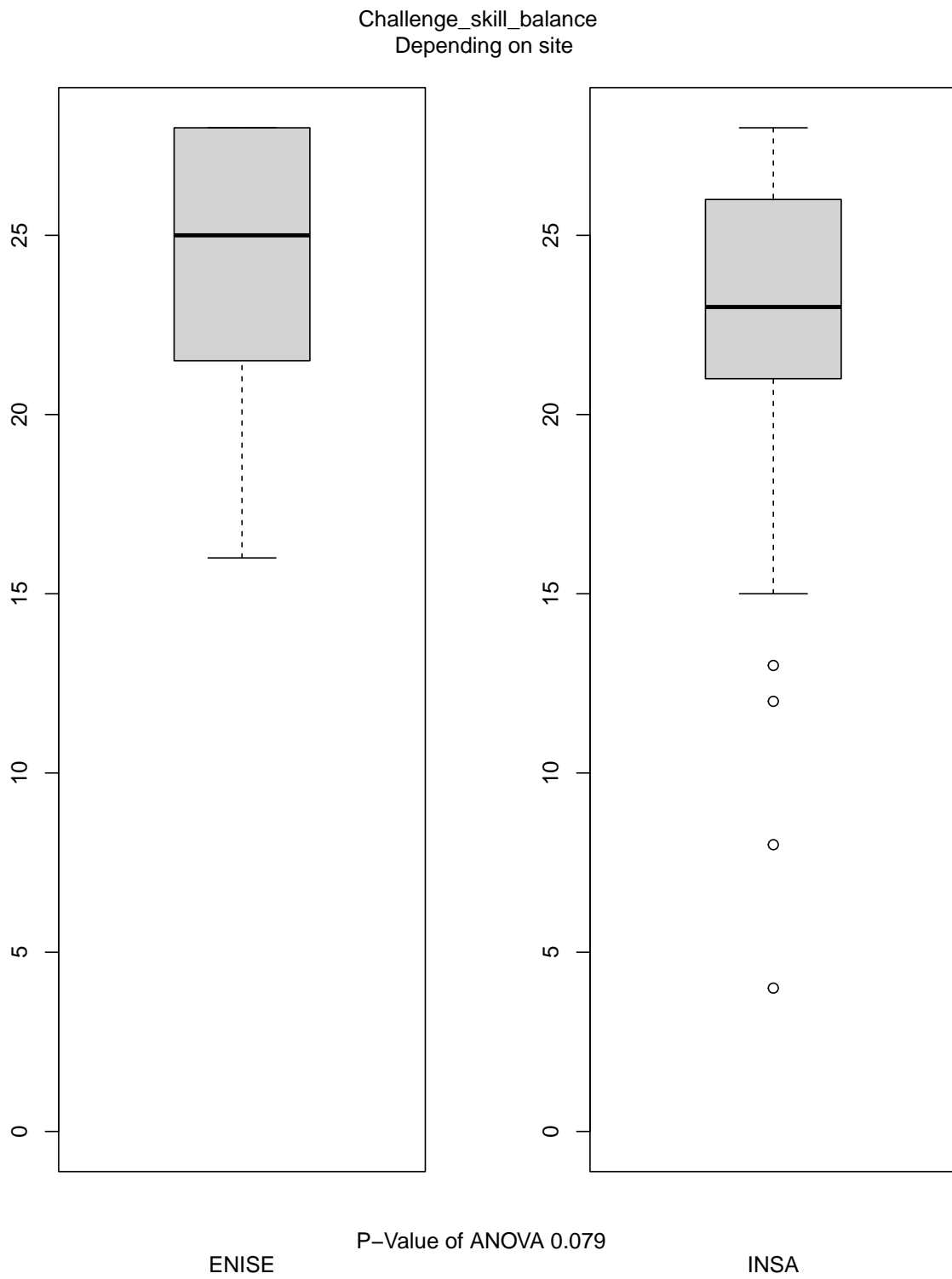
```
##      First      Second      Third
## 5.09722 5.98611 6.12500
```

```
## NULL
```

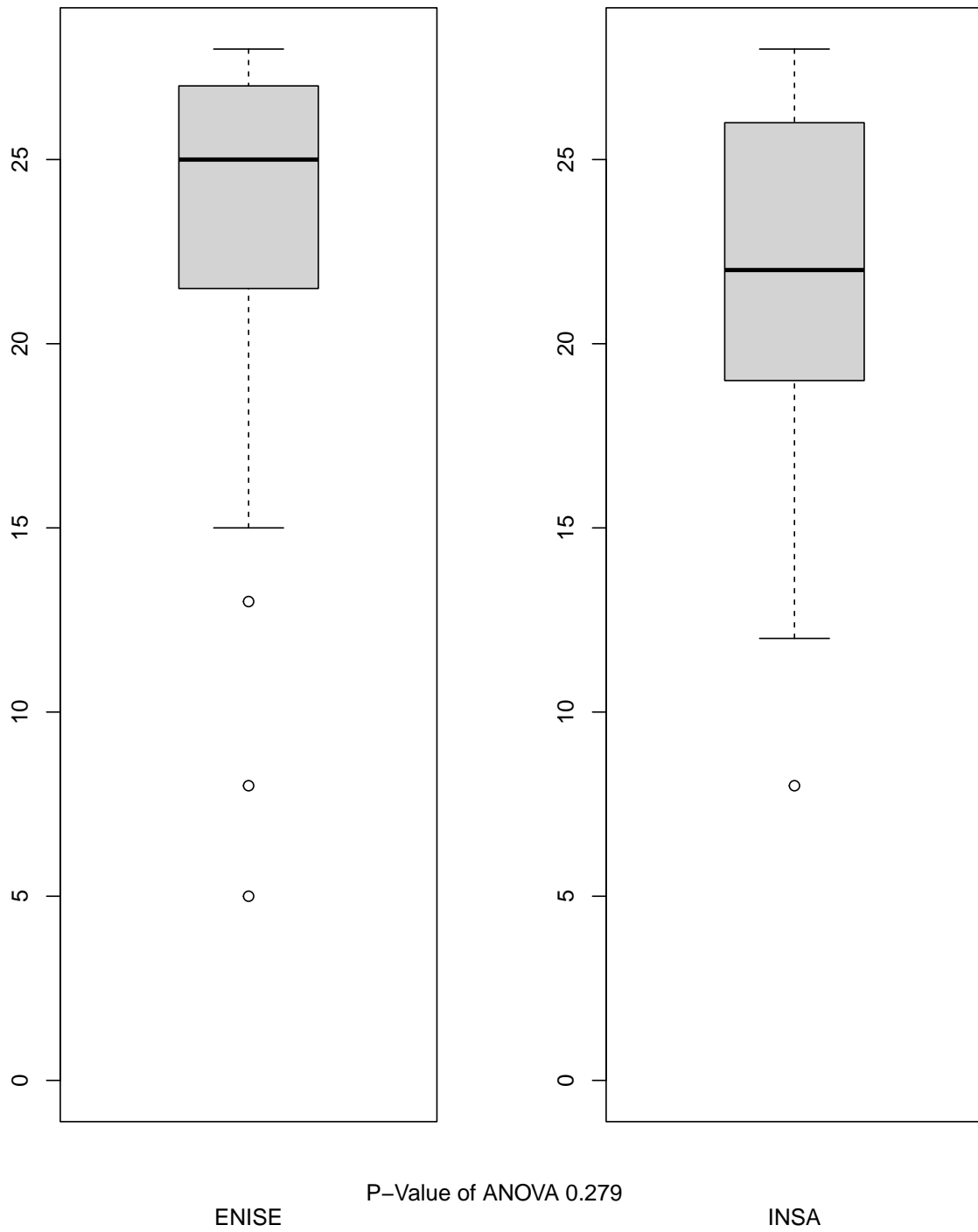


```
##      First      Second      Third
## 5.597222 5.486111 5.736111
```

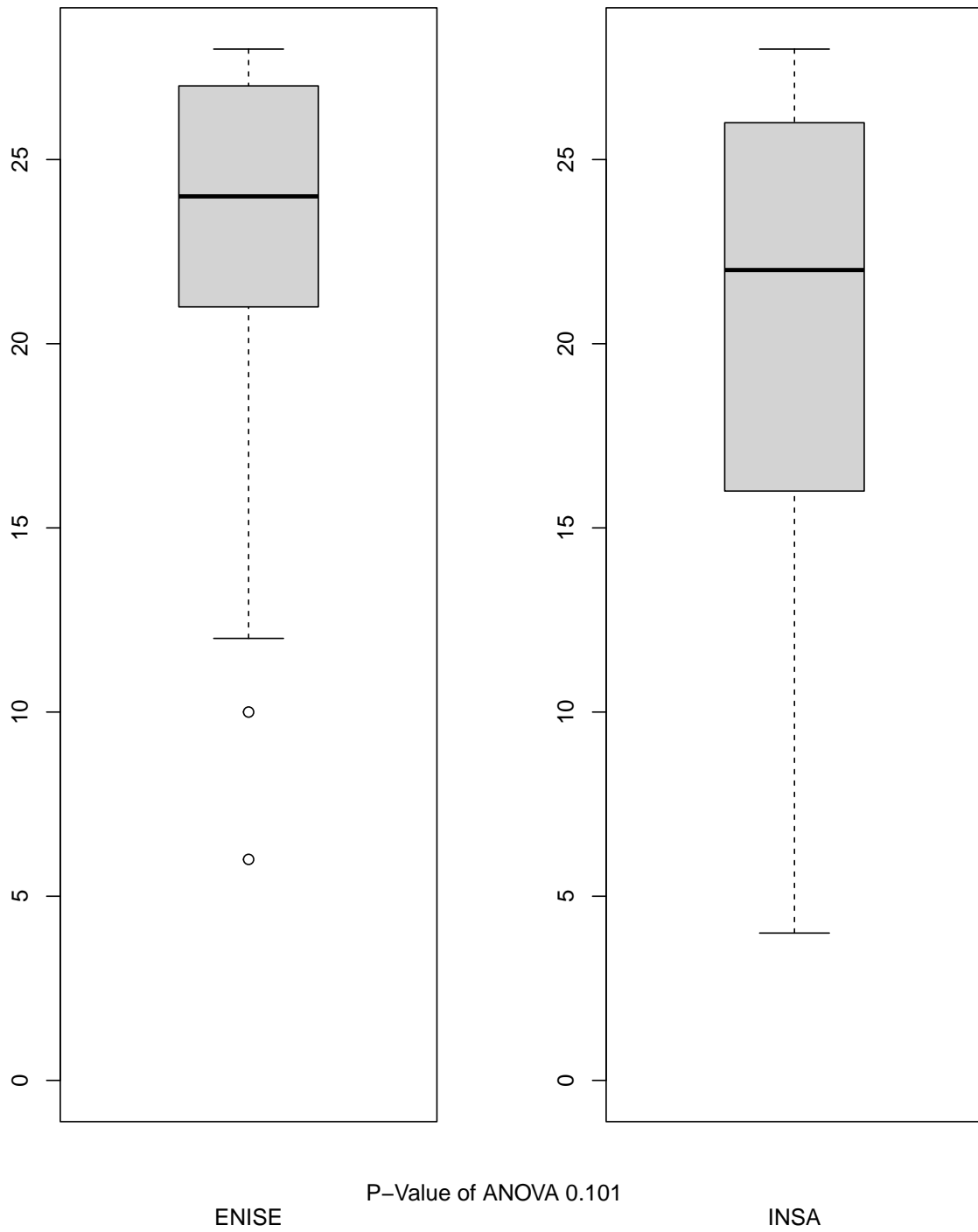
```
## NULL
```



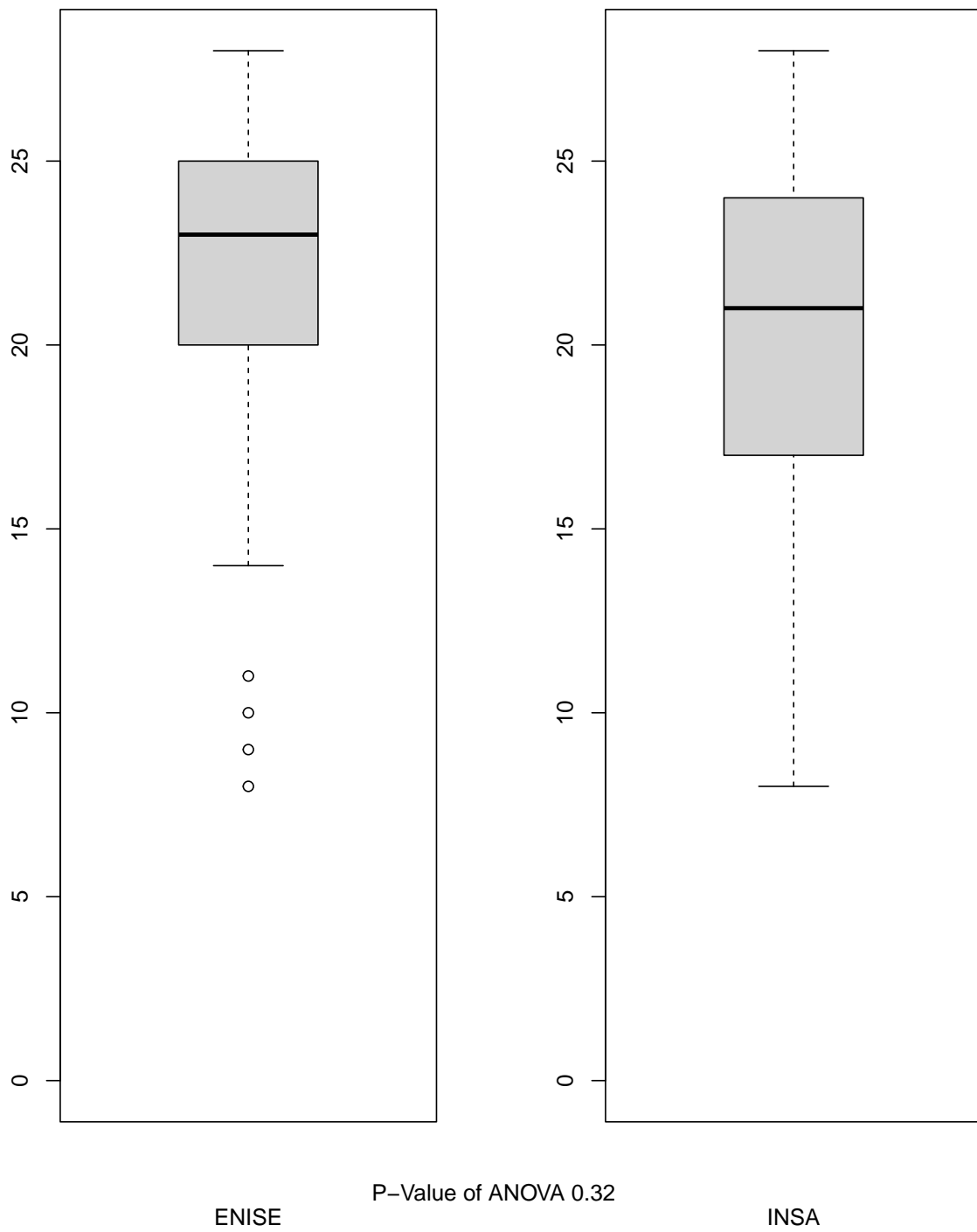
Action\_awareness  
Depending on site



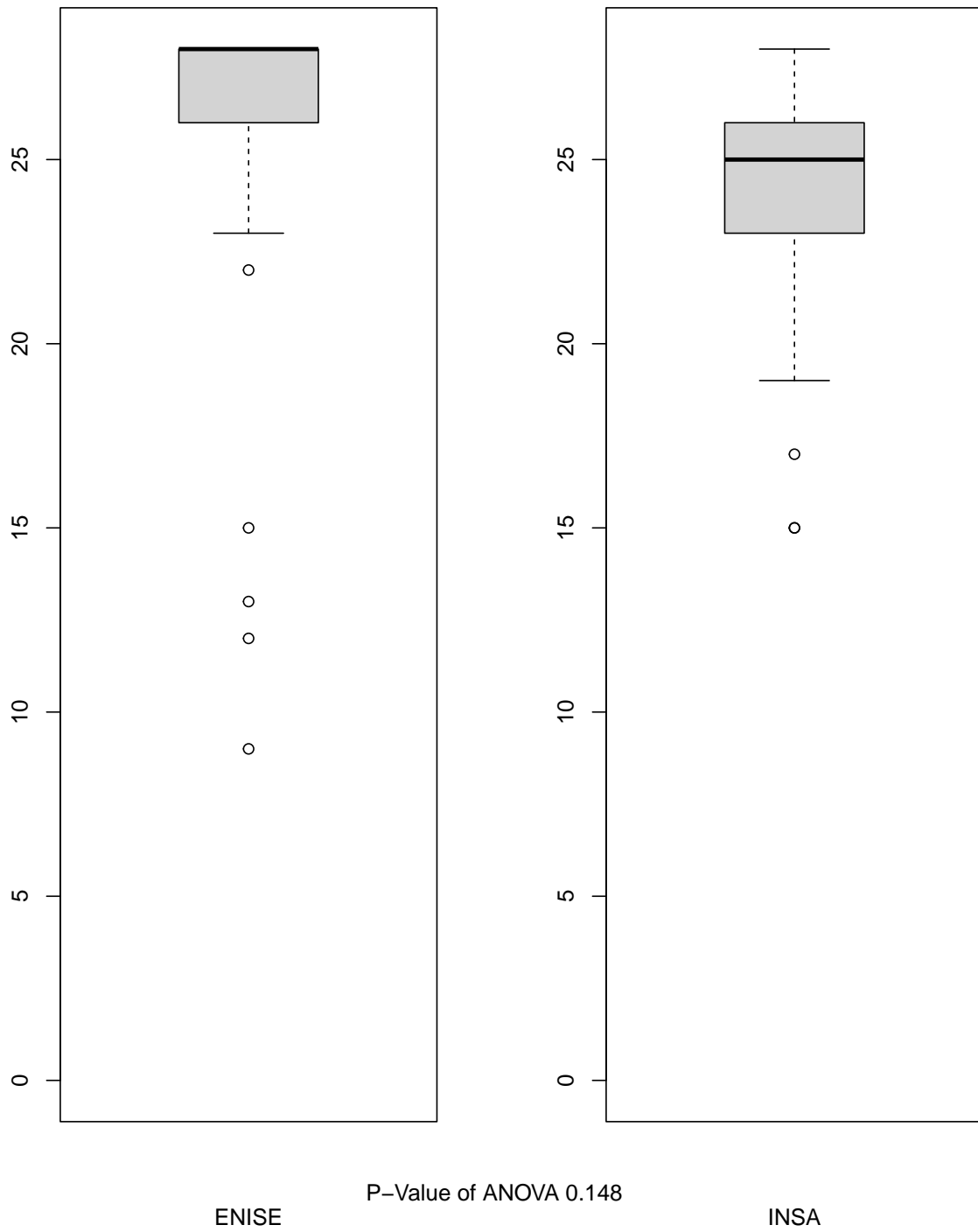
Clear\_goals  
Depending on site



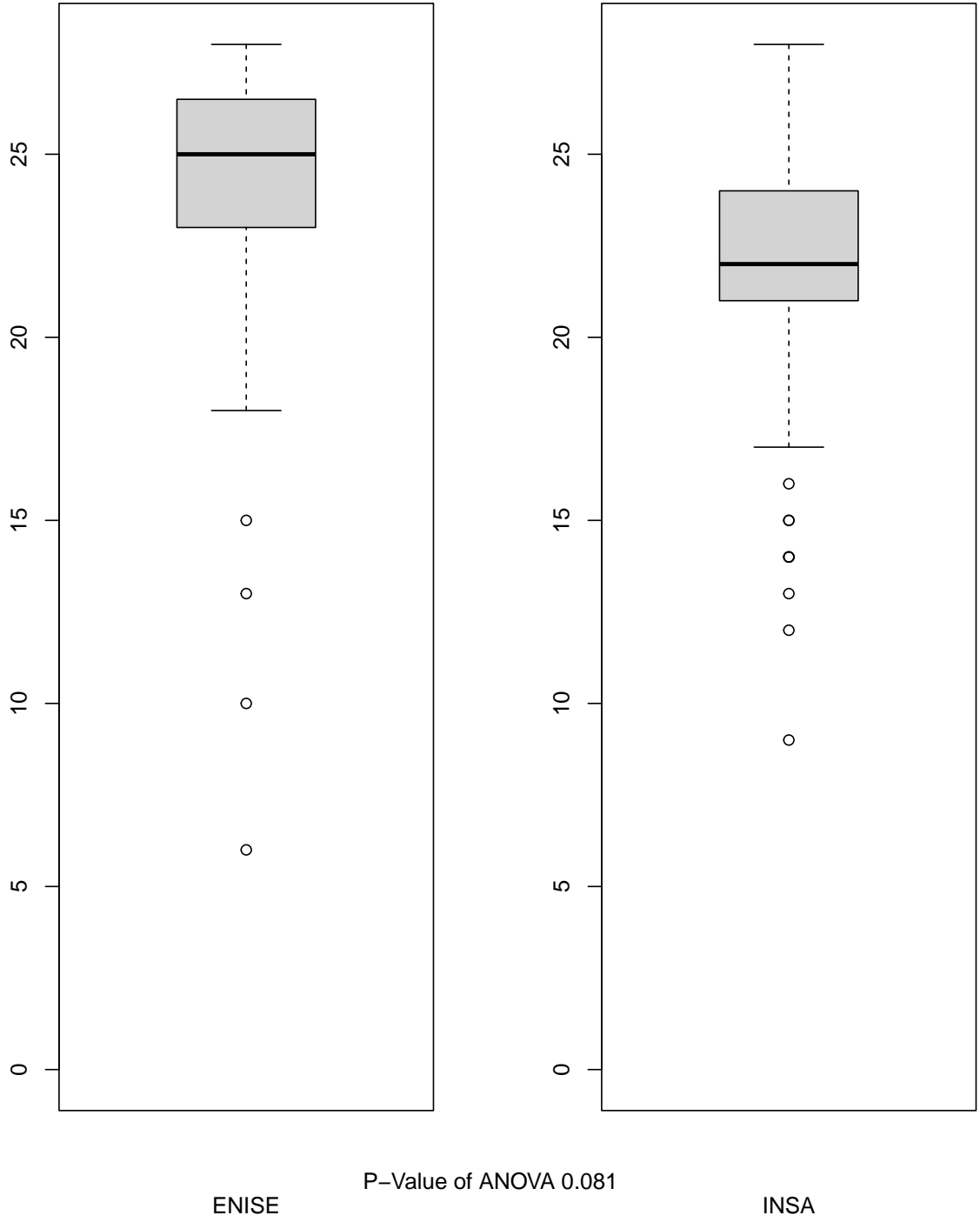
Unambiguous\_feedback  
Depending on site



Concentration  
Depending on site

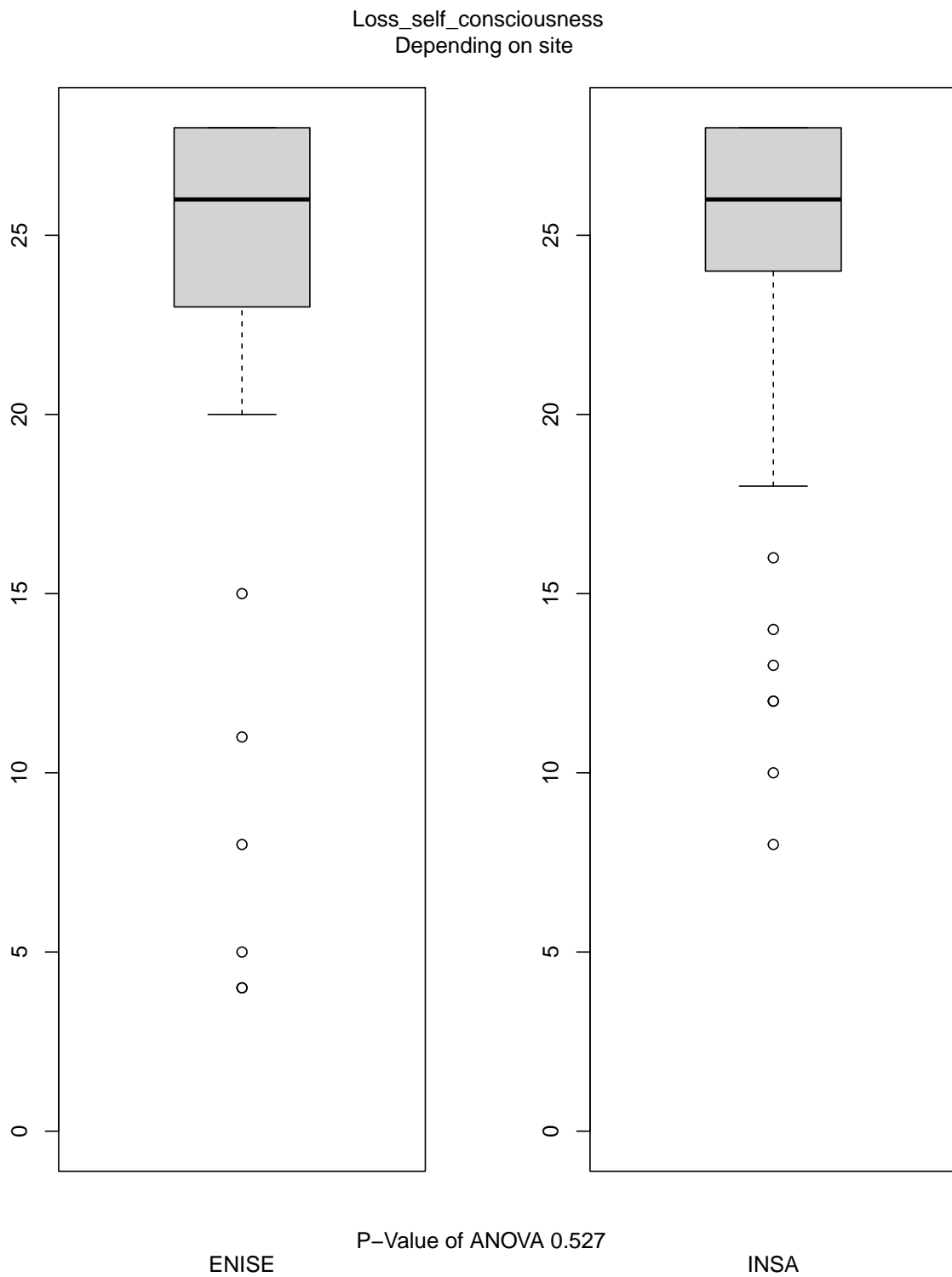


Sense\_of\_control  
Depending on site

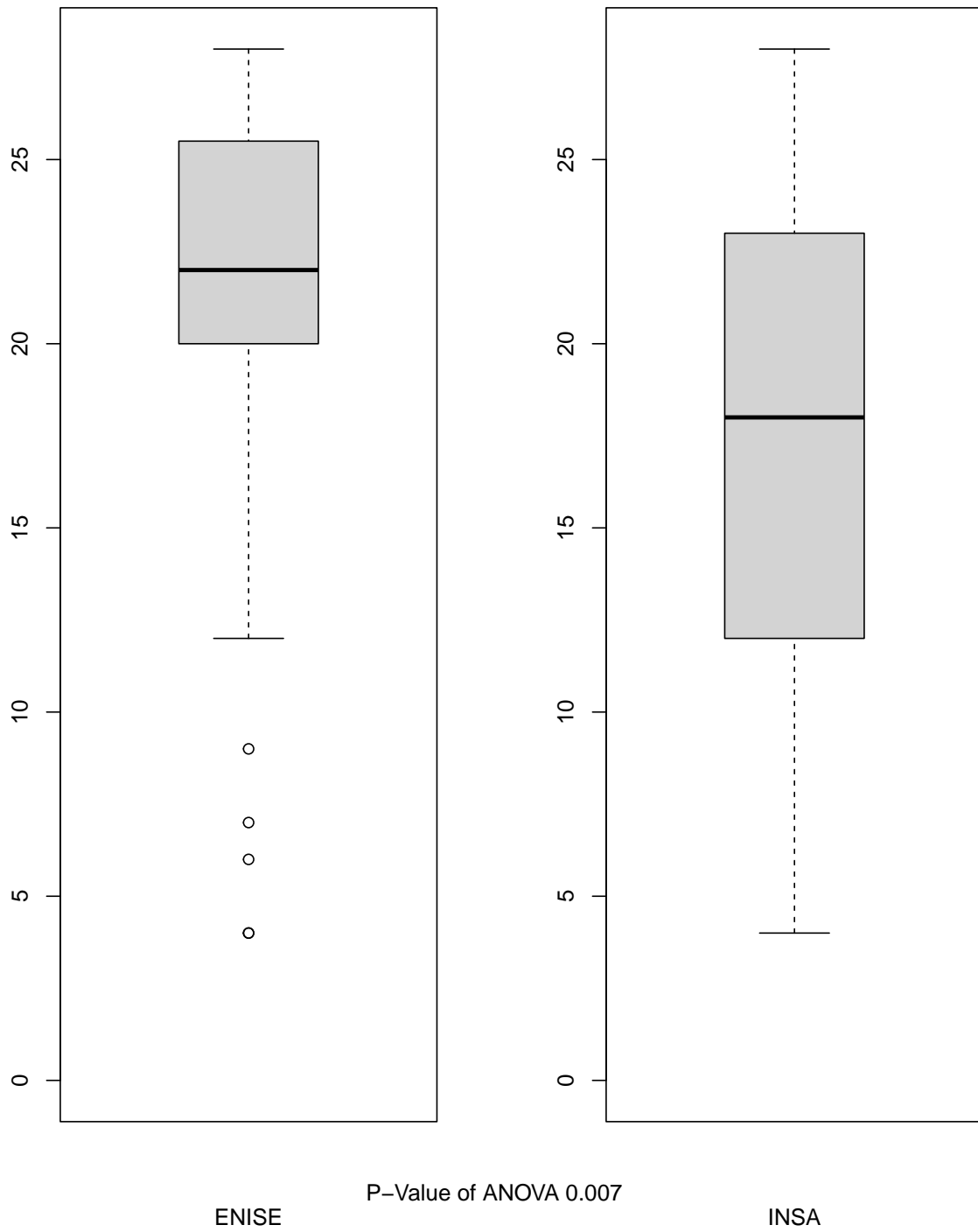


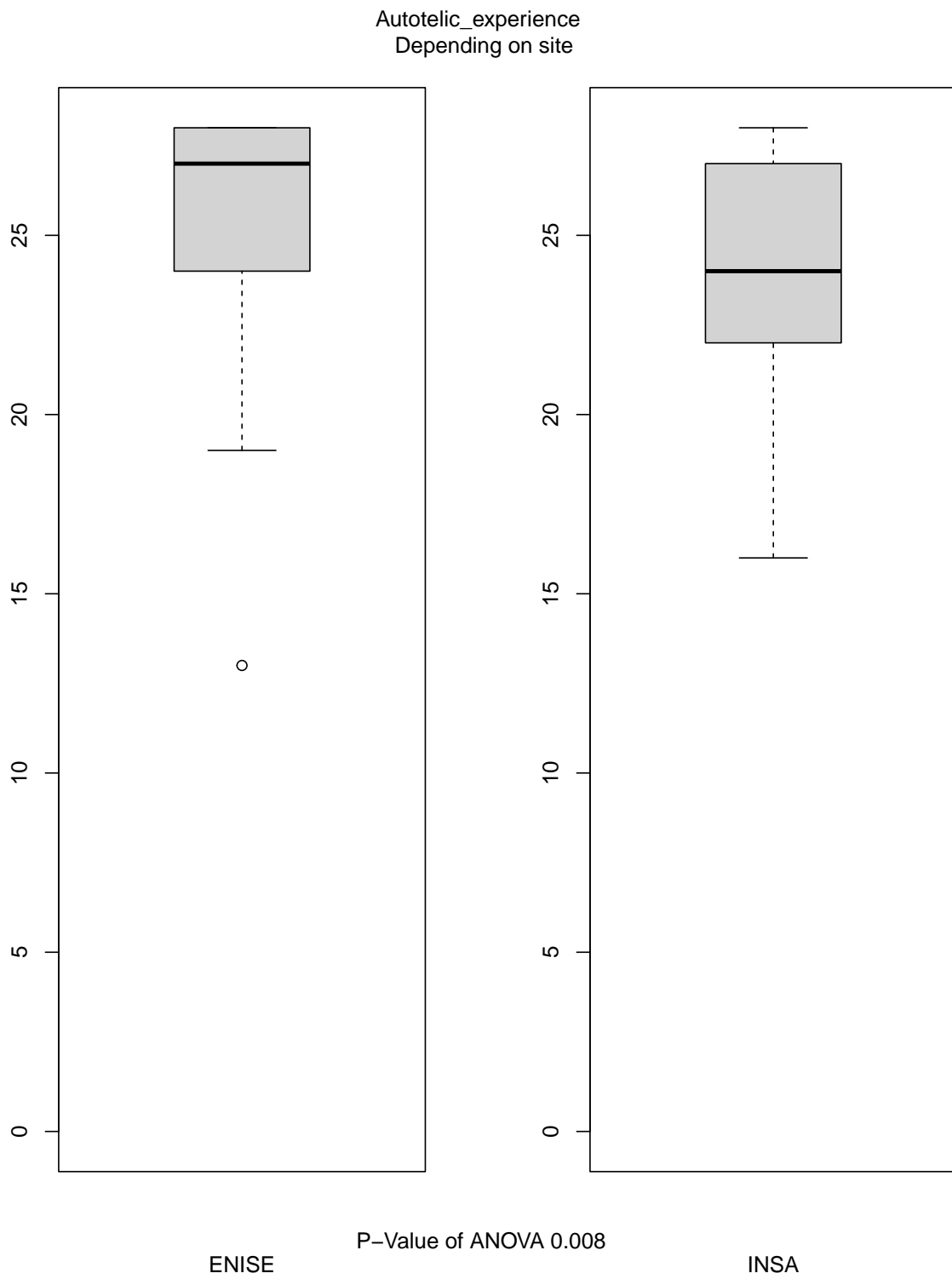
P-Value of ANOVA 0.081



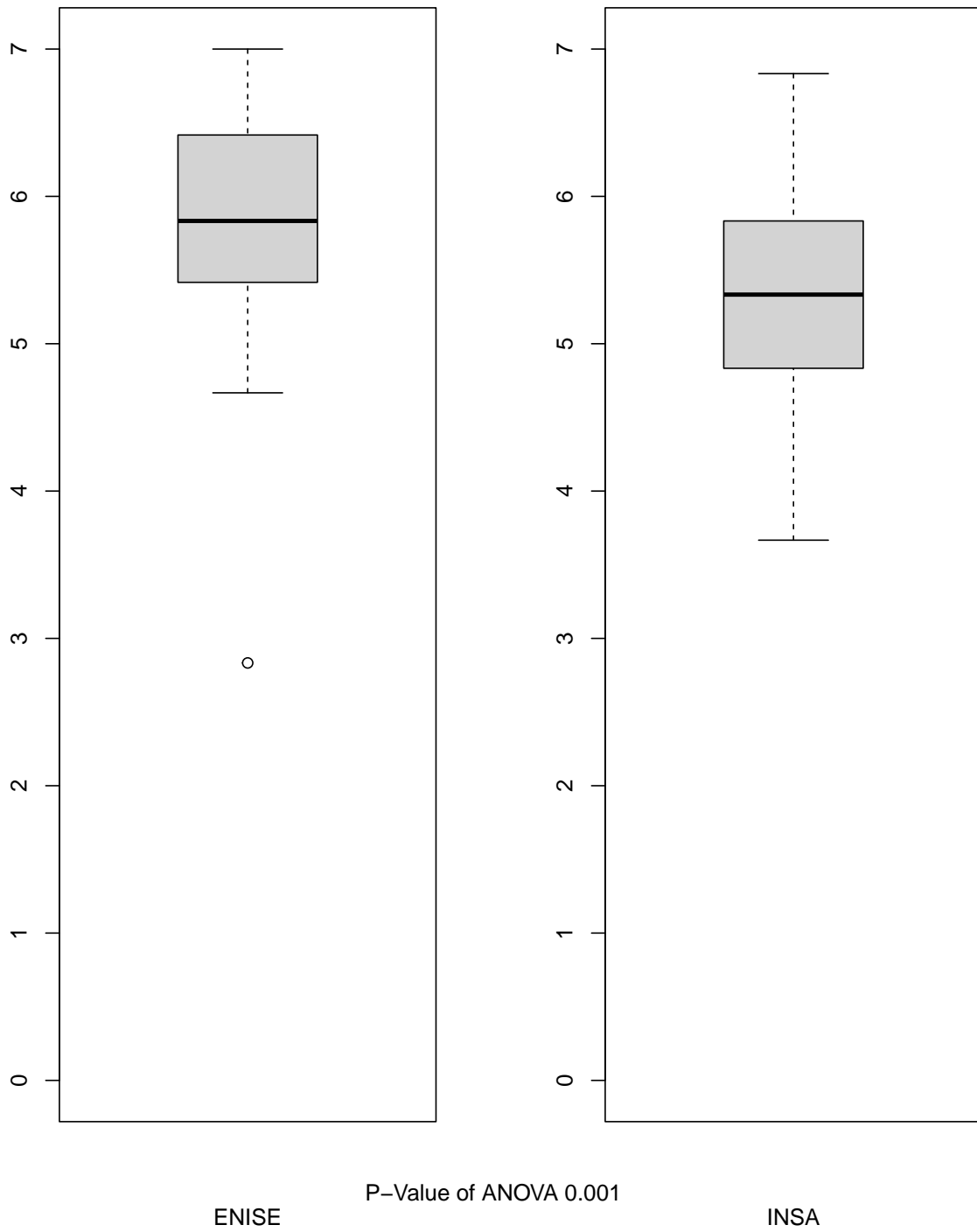


Time\_transformation  
Depending on site

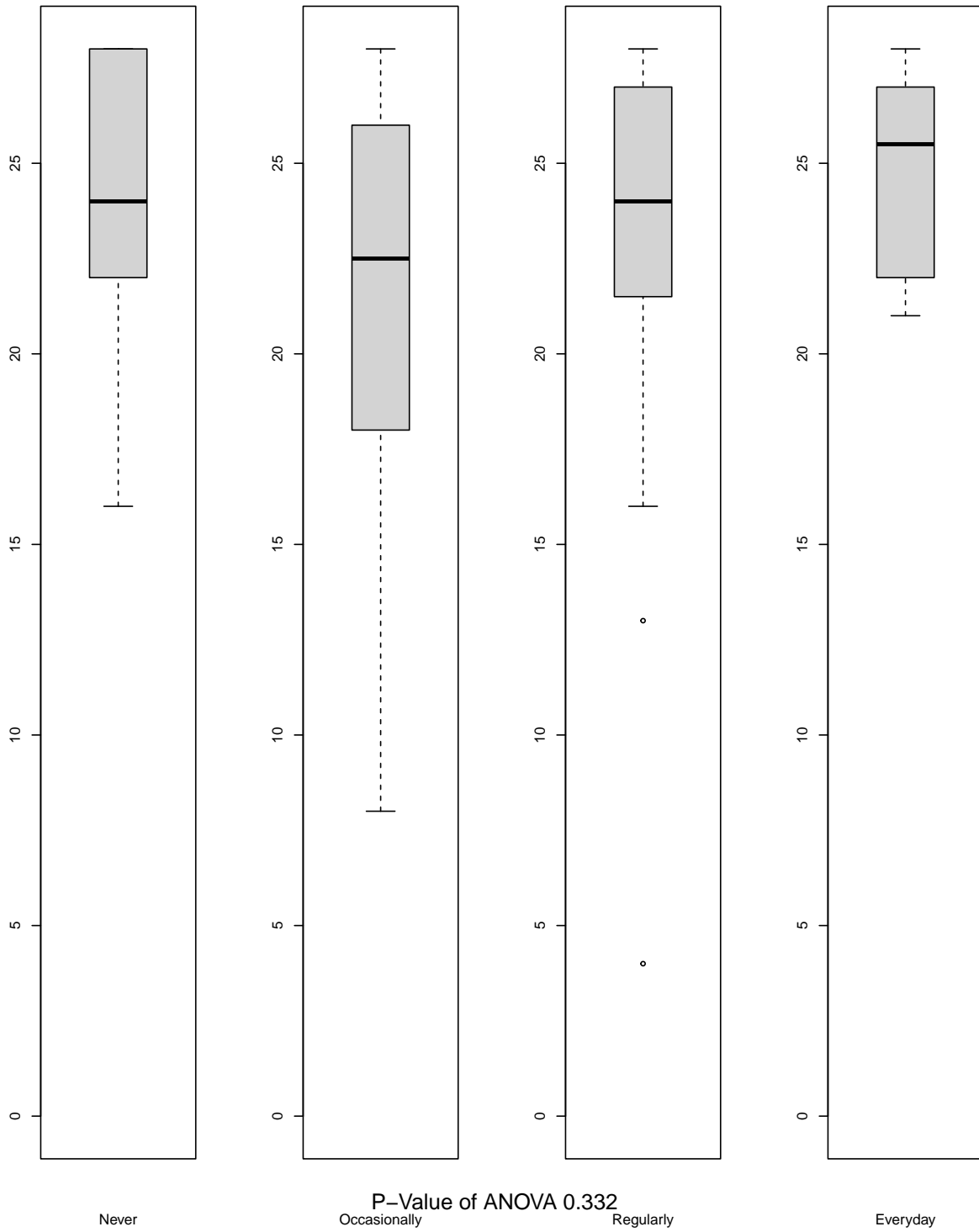




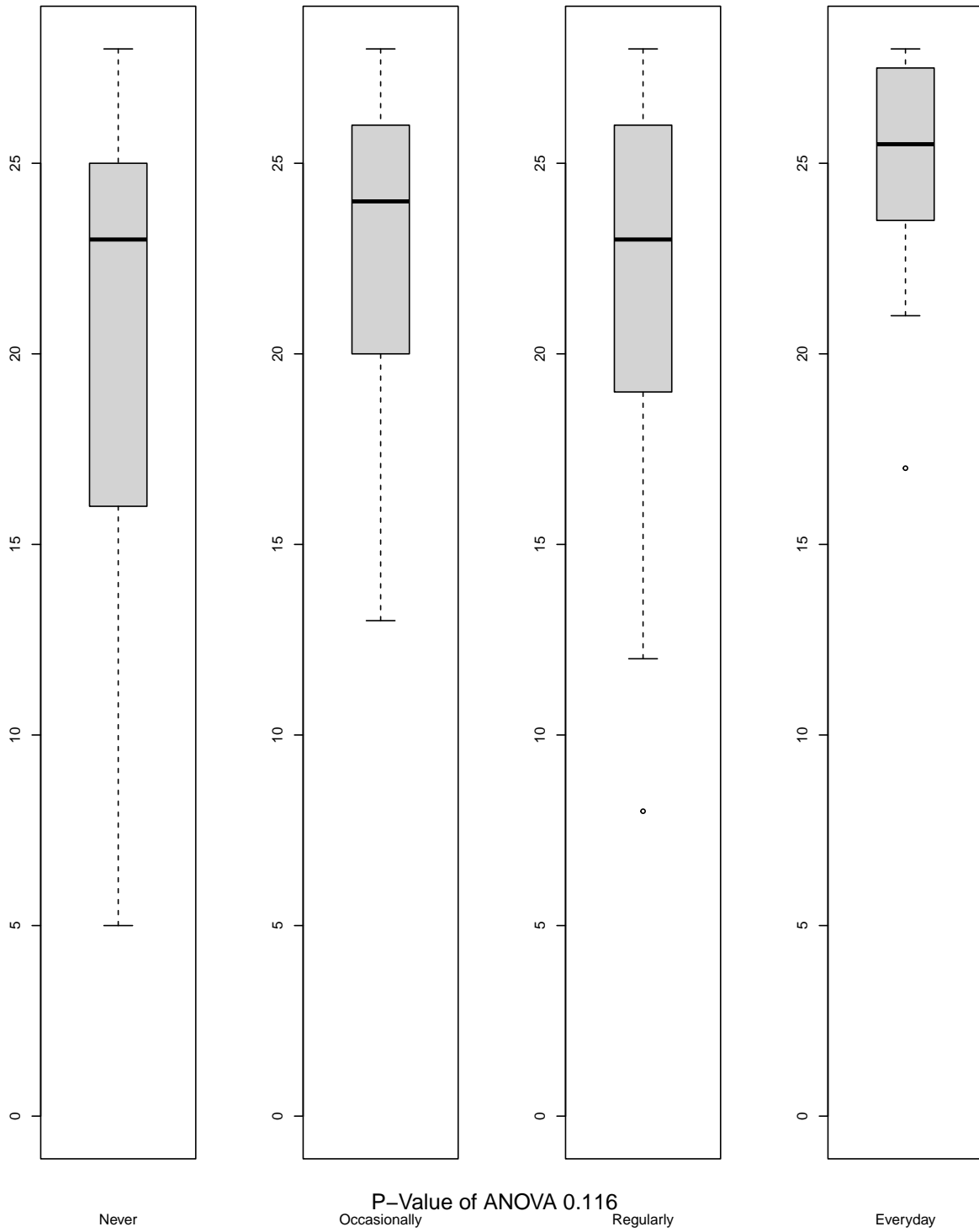
Engagement  
Depending on site



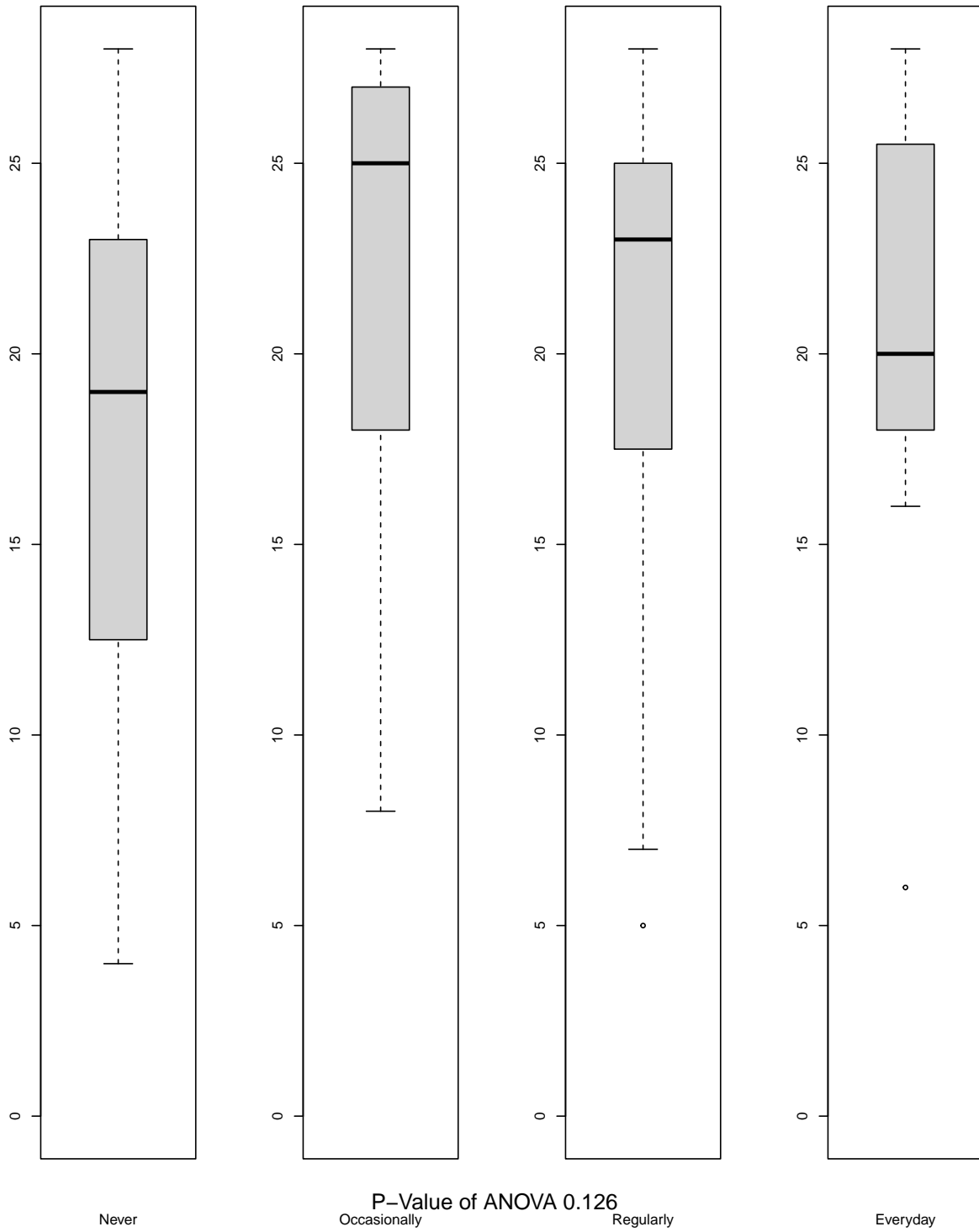
Challenge\_skill\_balance  
Depending on video game frequency



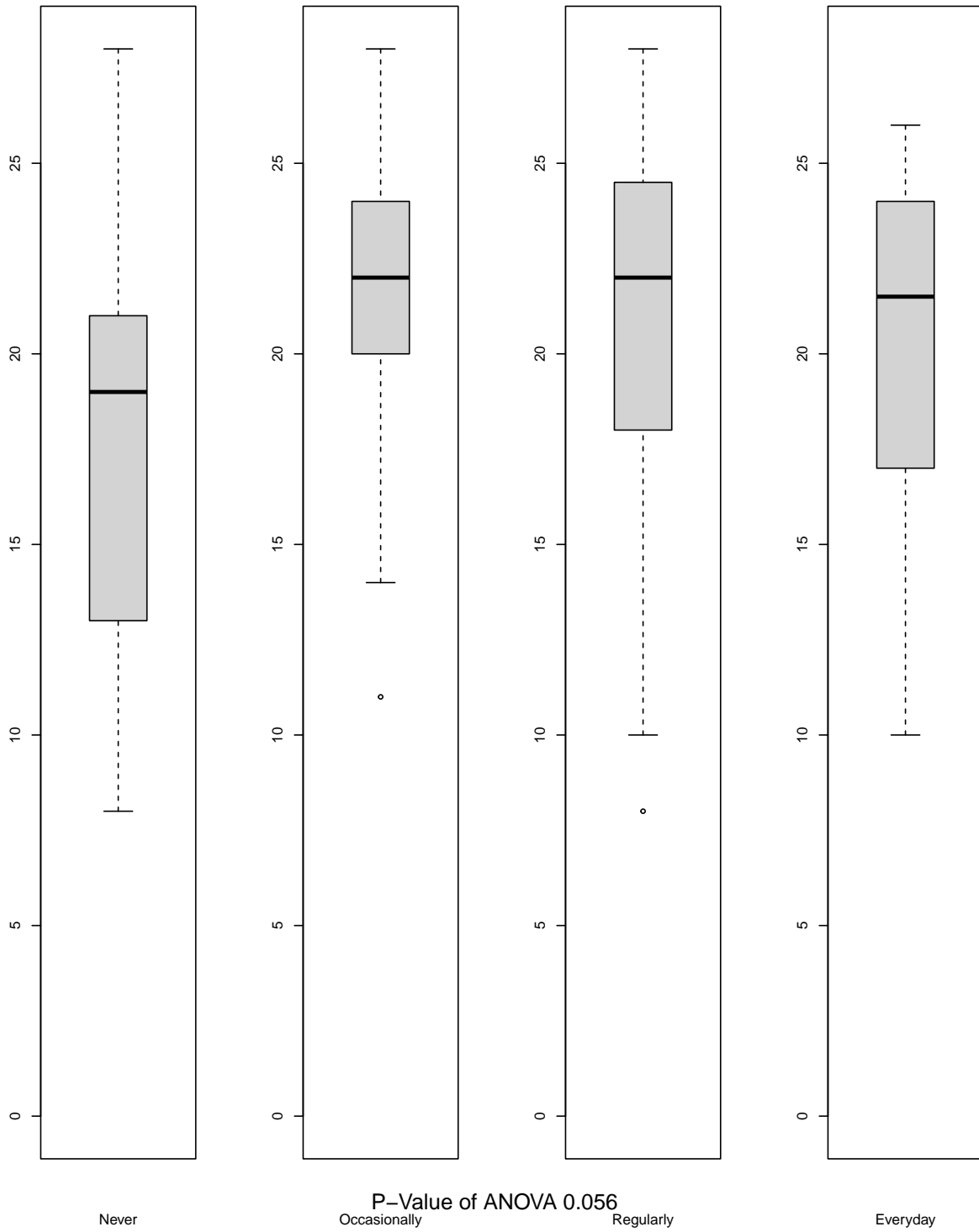
Action\_awareness  
Depending on video game frequency



Clear\_goals  
Depending on video game frequency

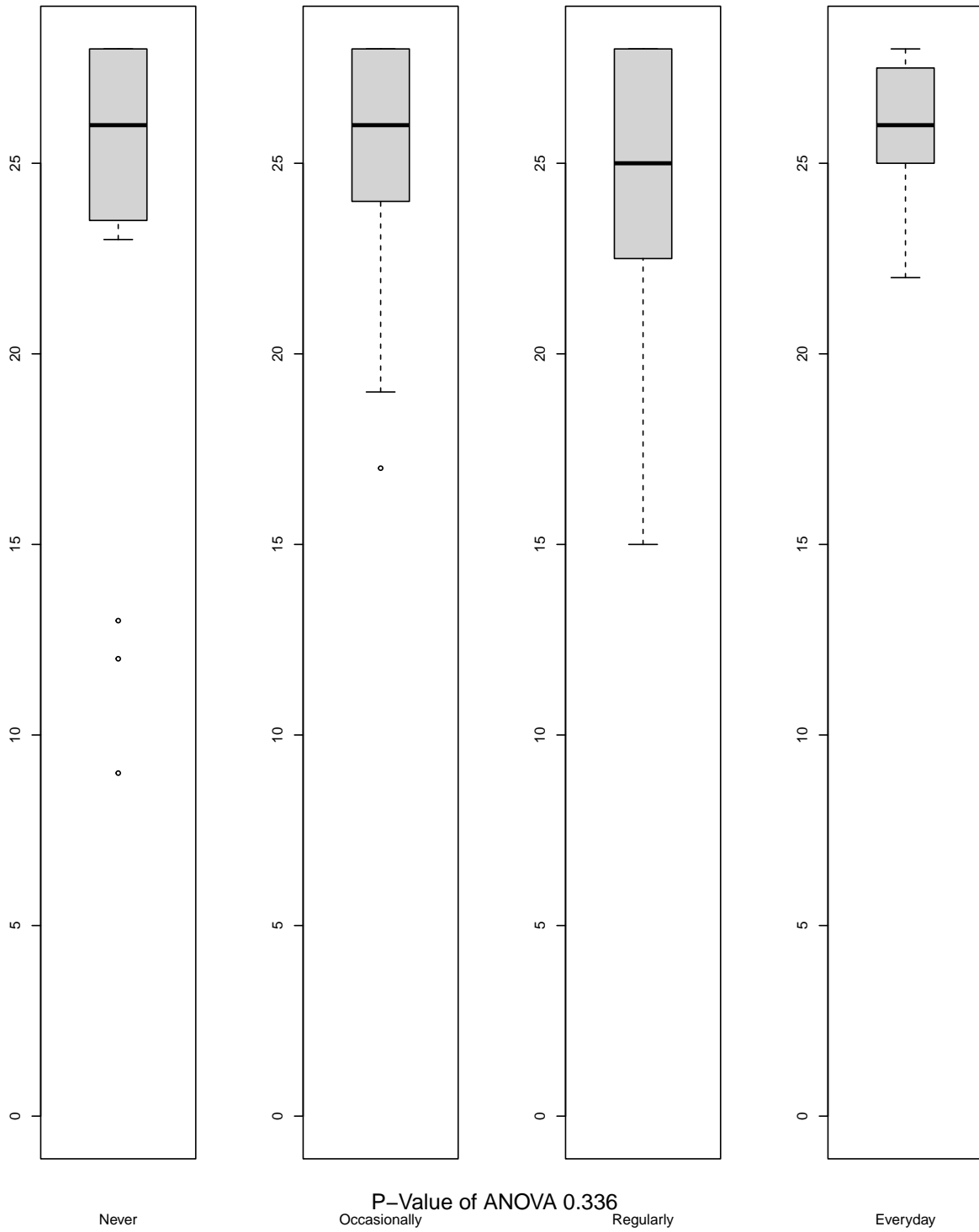


Unambiguous\_feedback  
Depending on video game frequency

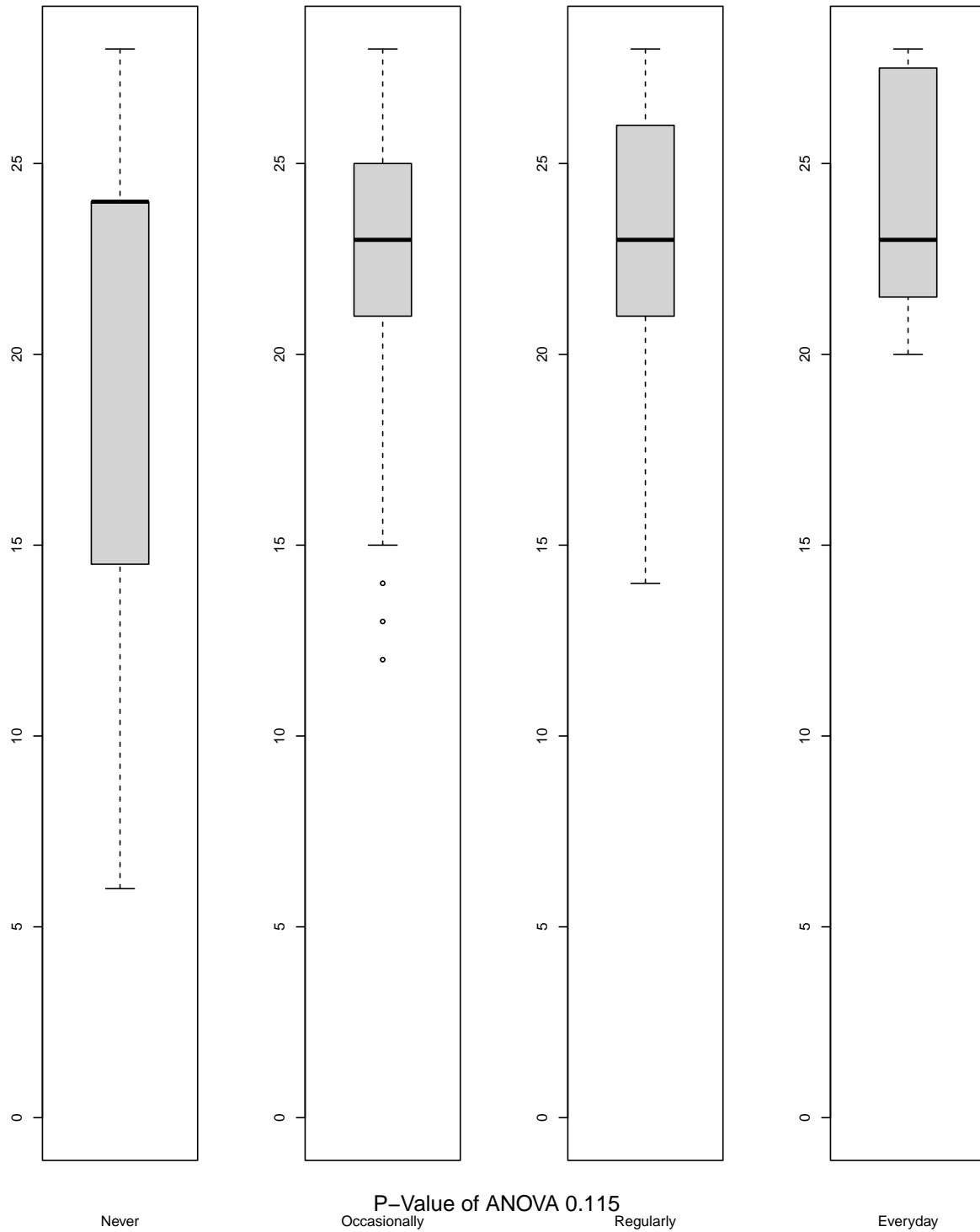




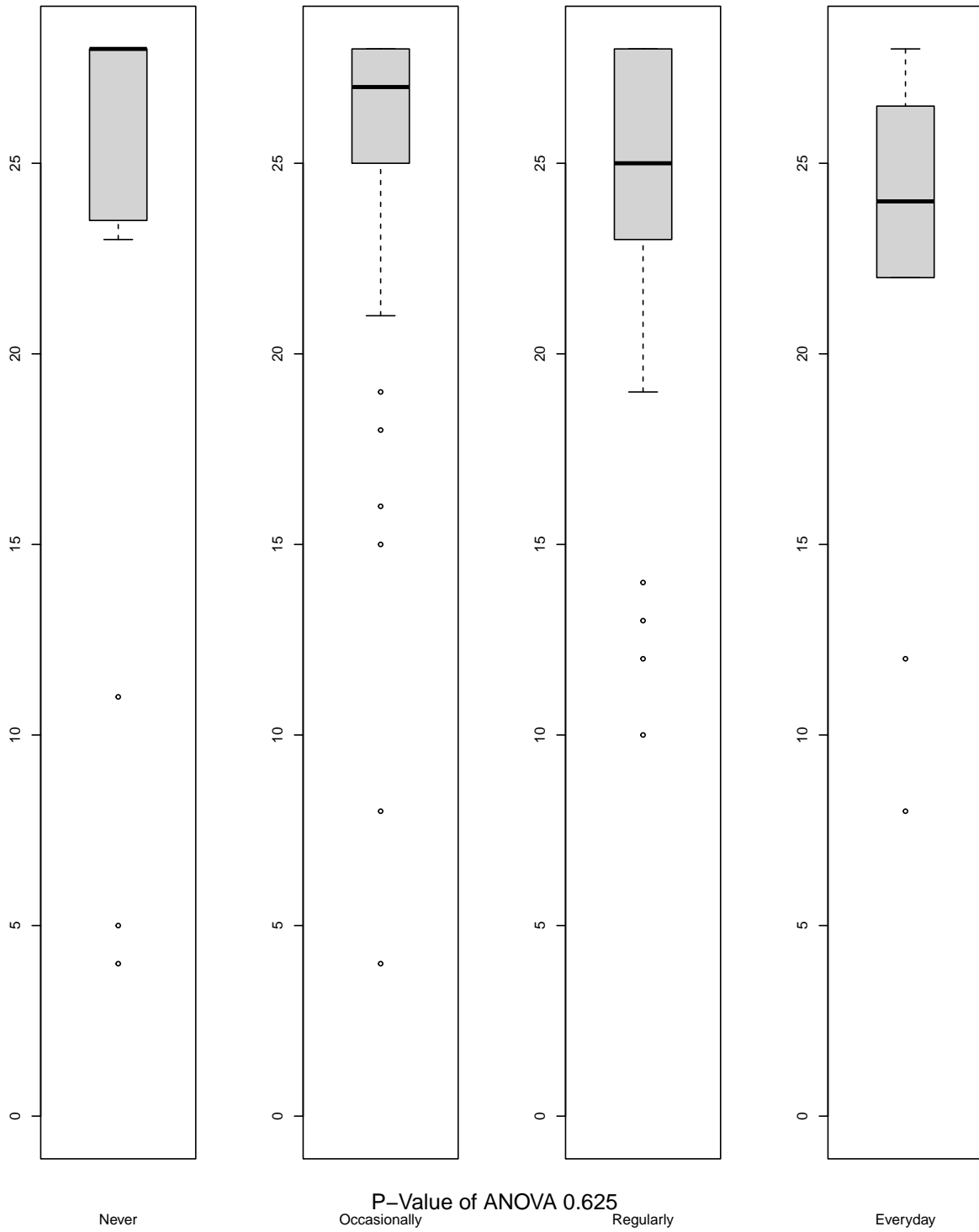
Concentration  
Depending on video game frequency



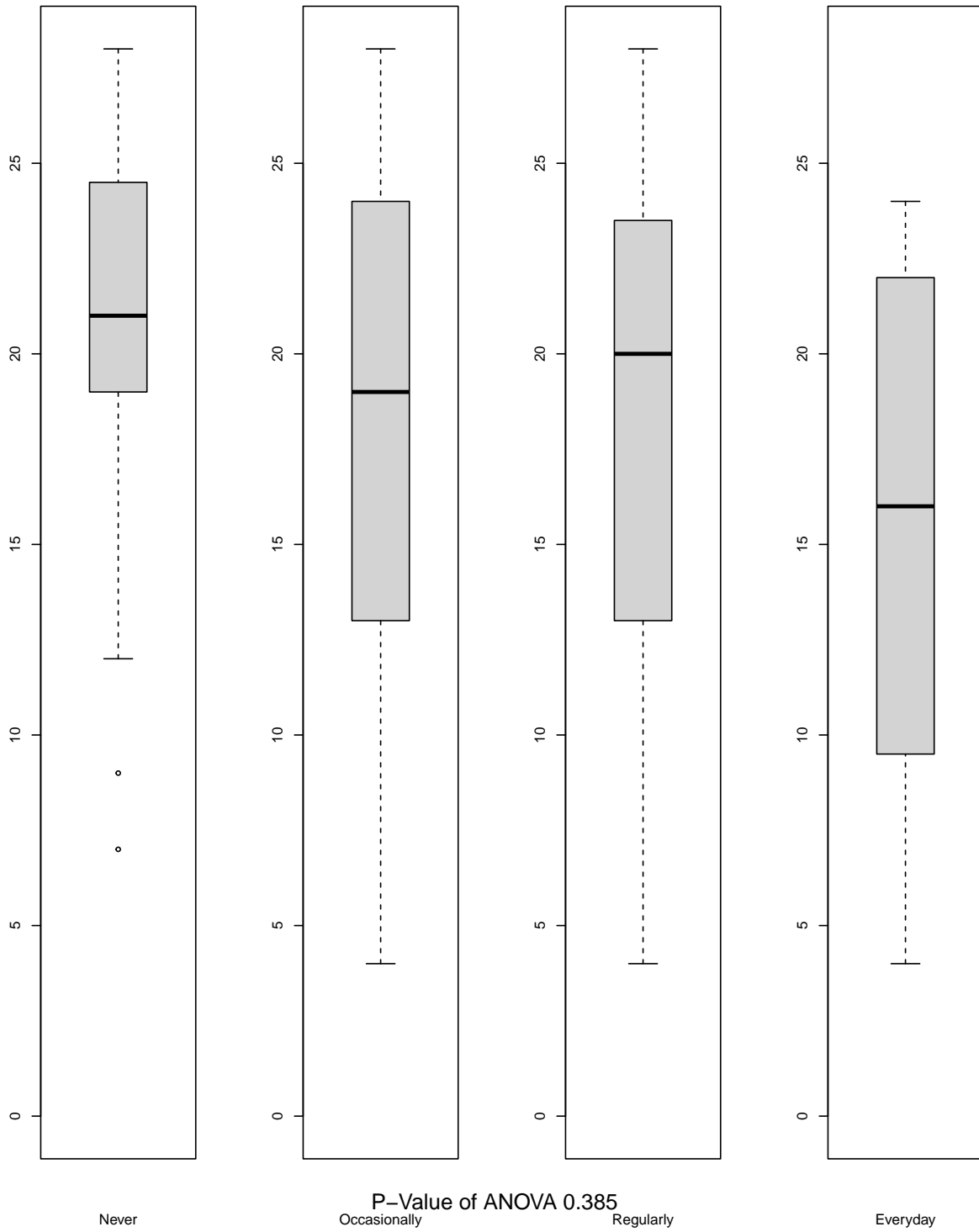
Sense\_of\_control  
Depending on video game frequency



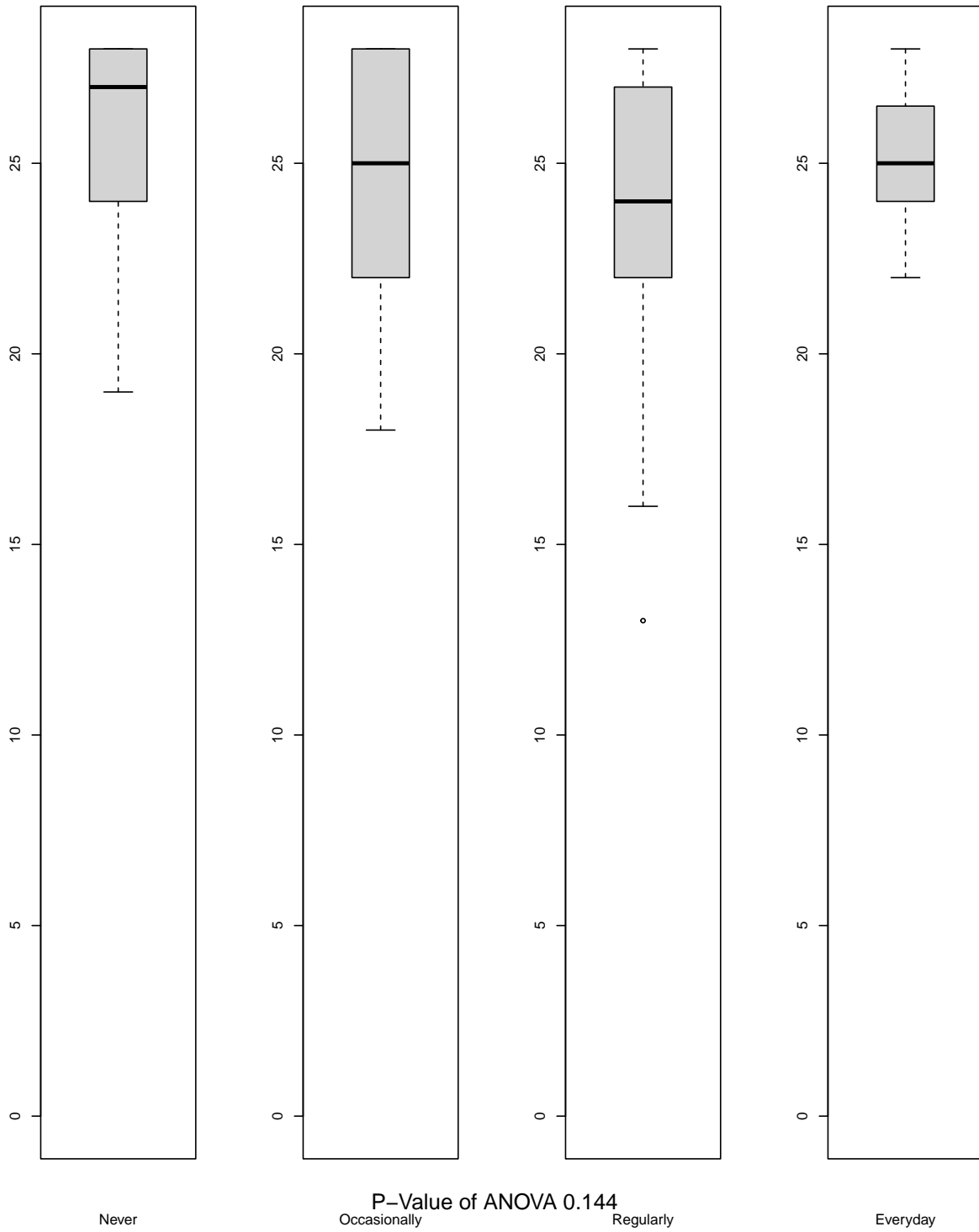
Loss\_self\_consciousness  
Depending on video game frequency

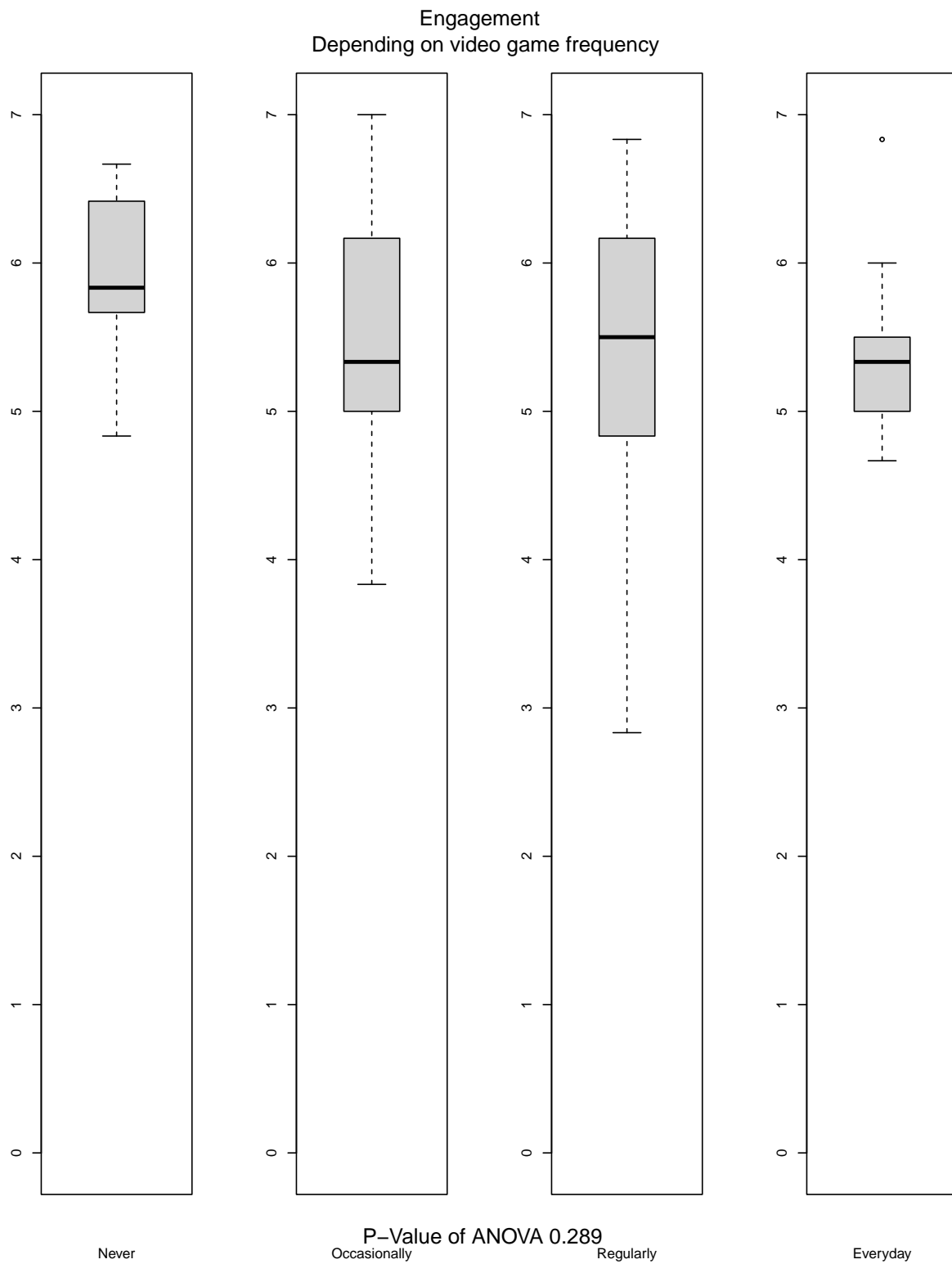


Time\_transformation  
Depending on video game frequency



Autotelic\_experience  
Depending on video game frequency

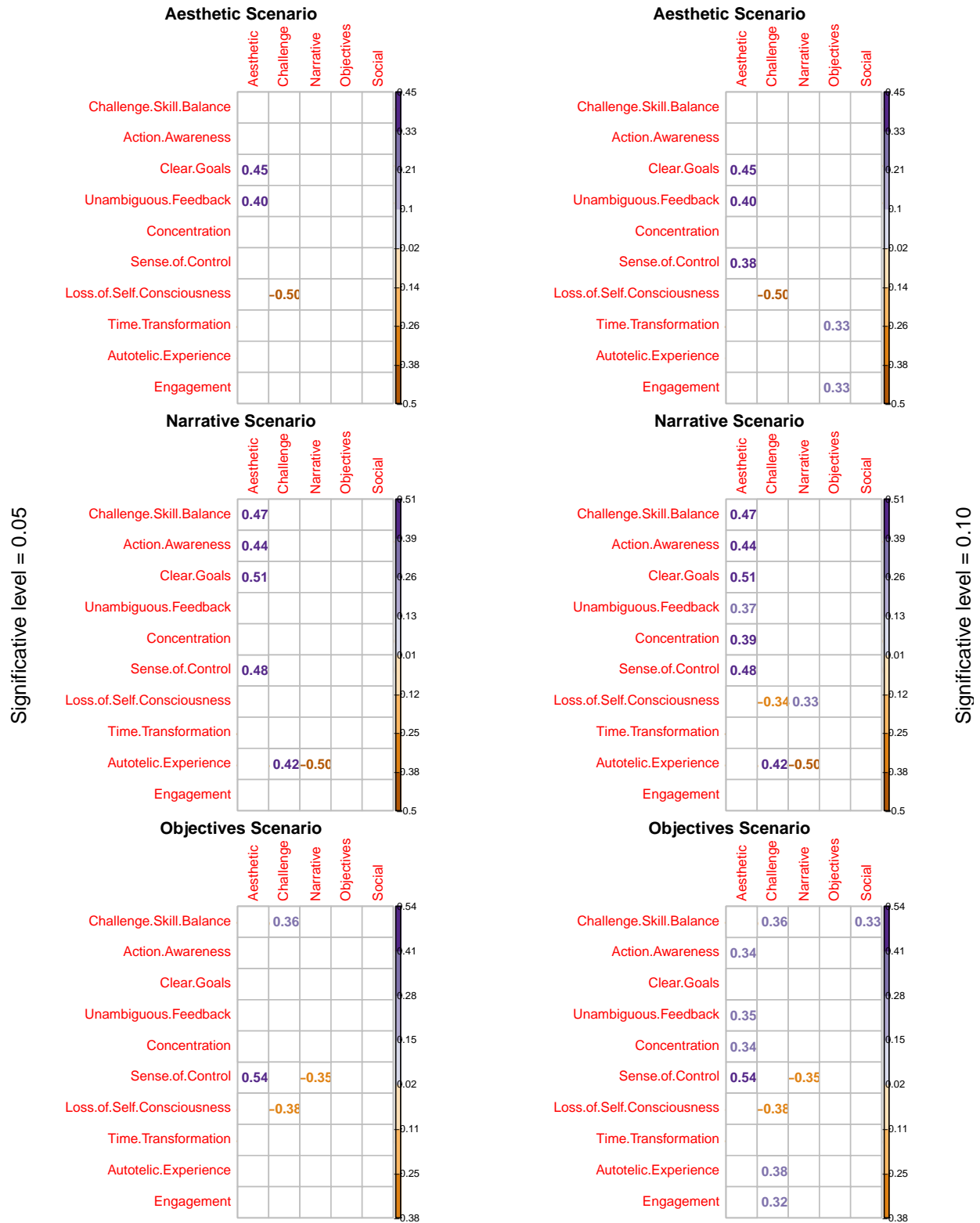




## Warning: Setting row names on a tibble is deprecated.

## Warning: Setting row names on a tibble is deprecated.

## Warning: Setting row names on a tibble is deprecated.



## [[1]]  
## [[1]]\$path\_coefs

```

##           Aesthetic    Challenge    Narrative    Objectives
## Challenge.Skill.Balance  0.12457816  0.173218535  0.20769563 -0.28303884
## Action.Awareness        0.26441770 -0.101152683  0.01091395 -0.03525548
## Clear.Goals              0.45037403  0.190742943 -0.19865757 -0.03293024
## Unambiguous.Feedback     0.39562053  0.107971343 -0.03317363 -0.01660926
## Concentration            0.19902528 -0.133956499  0.22954595  0.12465073
## Sense.of.Control         0.37512558 -0.192231726  0.06989501  0.07719733
## Loss.of.Self.Consciousness 0.08628820 -0.495720433  0.20319599  0.14195588
## Time.Transformation      -0.31149595 -0.072148099  0.13276563  0.32959813
## Autotelic.Experience     -0.06062219  0.208960825  0.10597253 -0.01981200
## Engagement               0.07480915 -0.006283522 -0.14196544  0.32722453
##
##           Social
## Challenge.Skill.Balance -0.12952881
## Action.Awareness        0.06164721
## Clear.Goals              -0.17299597
## Unambiguous.Feedback     -0.24400642
## Concentration            -0.10951823
## Sense.of.Control         0.03920533
## Loss.of.Self.Consciousness 0.01431990
## Time.Transformation      0.02081459
## Autotelic.Experience     0.05222572
## Engagement               -0.11178650
##
## [[1]]$p_values
##           Aesthetic    Challenge    Narrative    Objectives
## Challenge.Skill.Balance  0.53424296  0.367549576  0.2933885  0.15567446
## Action.Awareness        0.19838241  0.602404867  0.9562000  0.85931355
## Clear.Goals              0.02190405  0.292506198  0.2852863  0.85819852
## Unambiguous.Feedback     0.04938061  0.562968327  0.8620917  0.93072887
## Concentration            0.32004323  0.481881630  0.2434922  0.52345542
## Sense.of.Control         0.05858383  0.300136256  0.7112193  0.68290547
## Loss.of.Self.Consciousness 0.64364024  0.008651796  0.2704717  0.43931943
## Time.Transformation      0.11203200  0.694314780  0.4820293  0.08756308
## Autotelic.Experience     0.76856031  0.292696185  0.6003259  0.92185250
## Engagement               0.70568350  0.973488608  0.4661586  0.09944249
##
##           Social
## Challenge.Skill.Balance  0.5157083
## Action.Awareness        0.7598240
## Clear.Goals              0.3575996
## Unambiguous.Feedback     0.2135142
## Concentration            0.5797858
## Sense.of.Control         0.8376042
## Loss.of.Self.Consciousness 0.9383243
## Time.Transformation      0.9130889
## Autotelic.Experience     0.7986526
## Engagement               0.5707764
##
## [[1]]$traits_dfs_pls
## Partial Least Squares Path Modeling (PLS-PM)
## -----
##      NAME      DESCRIPTION
## 1  $outer_model  outer model
## 2  $inner_model  inner model
## 3  $path_coefs   path coefficients matrix

```



```

## 4 $scores          latent variable scores
## 5 $crossloadings   cross-loadings
## 6 $inner_summary   summary inner model
## 7 $effects         total effects
## 8 $unidim          unidimensionality
## 9 $gof             goodness-of-fit
## 10 $boot           bootstrap results
## 11 $data           data matrix
## -----
## You can also use the function 'summary'
##
##
## [[2]]
## [[2]]$path_coefs
##
##           Aesthetic   Challenge   Narrative   Objectives
## Challenge.Skill.Balance 0.47145052 -0.007467462 0.15248899 -0.137298055
## Action.Awareness       0.44028169 0.023922182 0.18695887 -0.043690907
## Clear.Goals            0.51410701 -0.040755873 -0.13680365 0.161850463
## Unambiguous.Feedback    0.37494670 -0.151013702 0.08428300 0.168363154
## Concentration          0.38604864 -0.250266625 0.11332136 0.100804798
## Sense.of.Control       0.48202031 -0.127997400 -0.03756590 0.085386961
## Loss.of.Self.Consciousness 0.13644664 -0.336129651 0.32746276 -0.071033002
## Time.Transformation    -0.27019972 0.084584296 -0.07784281 0.005379115
## Autotelic.Experience   -0.14117039 0.417980570 -0.50384711 -0.065568387
## Engagement             0.02200417 -0.065393962 -0.04034106 0.174880578
##
##           Social
## Challenge.Skill.Balance -0.11316137
## Action.Awareness       -0.17266209
## Clear.Goals            0.03085643
## Unambiguous.Feedback    0.06117695
## Concentration          -0.15036909
## Sense.of.Control       -0.09823386
## Loss.of.Self.Consciousness 0.11072216
## Time.Transformation    0.11576217
## Autotelic.Experience   0.21714063
## Engagement             0.03153274
##
## [[2]]$p_values
##
##           Aesthetic   Challenge   Narrative   Objectives
## Challenge.Skill.Balance 0.015108836 0.96620694 0.401780164 0.4501124
## Action.Awareness       0.023306359 0.89279835 0.308683272 0.8105580
## Clear.Goals            0.007843013 0.81475415 0.445274145 0.3677614
## Unambiguous.Feedback    0.053878285 0.40441865 0.648720631 0.3656578
## Concentration          0.051852153 0.17972649 0.548812051 0.5938418
## Sense.of.Control       0.016027446 0.48365148 0.840556206 0.6481674
## Loss.of.Self.Consciousness 0.459295866 0.06279076 0.076372137 0.6935528
## Time.Transformation    0.192832540 0.66568016 0.698168545 0.9786096
## Autotelic.Experience   0.408674234 0.01445531 0.004737668 0.6943433
## Engagement             0.916415095 0.74433714 0.844417831 0.3979582
##
##           Social
## Challenge.Skill.Balance 0.5383545
## Action.Awareness       0.3531320
## Clear.Goals            0.8645478

```

```

## Unambiguous.Feedback      0.7441469
## Concentration             0.4336993
## Sense.of.Control          0.6045821
## Loss.of.Self.Consciousness 0.5451287
## Time.Transformation        0.5700984
## Autotelic.Experience       0.2045984
## Engagement                 0.8797409
##
## [[2]]$traits_dfs_pls
## Partial Least Squares Path Modeling (PLS-PM)
## -----
##      NAME      DESCRIPTION
## 1 $outer_model  outer model
## 2 $inner_model  inner model
## 3 $path_coefs   path coefficients matrix
## 4 $scores       latent variable scores
## 5 $crossloadings cross-loadings
## 6 $inner_summary summary inner model
## 7 $effects      total effects
## 8 $unidim       unidimensionality
## 9 $gof          goodness-of-fit
## 10 $boot        bootstrap results
## 11 $data        data matrix
## -----
## You can also use the function 'summary'
##
##
##
## [[3]]
## [[3]]$path_coefs
##
##      Aesthetic  Challenge  Narrative  Objectives
## Challenge.Skill.Balance -0.23459114  0.35828228  0.15003146 -0.04200912
## Action.Awareness        0.34294072 -0.02609592  0.23455861 -0.17022323
## Clear.Goals              0.13344503 -0.05983196  0.15216584  0.05774899
## Unambiguous.Feedback     0.34928685 -0.06975814  0.14695125 -0.18130098
## Concentration            0.33970865 -0.02444886 -0.07361855  0.19367697
## Sense.of.Control         0.54371376 -0.10930579 -0.35411598  0.23127735
## Loss.of.Self.Consciousness -0.04411590 -0.37681408  0.27901648 -0.08981193
## Time.Transformation      -0.20445090 -0.11713387  0.21717558 -0.02257221
## Autotelic.Experience     0.01194800  0.37530144 -0.12628379 -0.17965718
## Engagement               0.02966155  0.32439329 -0.26677643  0.02874169
##
##      Social
## Challenge.Skill.Balance  0.334812028
## Action.Awareness        -0.122674548
## Clear.Goals              -0.007060102
## Unambiguous.Feedback     0.048220550
## Concentration            0.216443403
## Sense.of.Control         0.173020466
## Loss.of.Self.Consciousness 0.199083412
## Time.Transformation      -0.083360862
## Autotelic.Experience     -0.026155482
## Engagement               0.079292710
##
## [[3]]$p_values

```

```

##           Aesthetic Challenge Narrative Objectives
## Challenge.Skill.Balance 0.20678289 0.04794291 0.40651028 0.8153730
## Action.Awareness       0.08173273 0.88691546 0.21852321 0.3693355
## Clear.Goals             0.51889561 0.76153060 0.45358269 0.7753513
## Unambiguous.Feedback    0.07242591 0.69992870 0.43046990 0.3323681
## Concentration           0.07665241 0.89109252 0.68807679 0.2950576
## Sense.of.Control        0.00295137 0.50125753 0.03973256 0.1708139
## Loss.of.Self.Consciousness 0.80974054 0.03797530 0.12755537 0.6178718
## Time.Transformation     0.31846256 0.54763429 0.28035196 0.9098549
## Autotelic.Experience    0.95185141 0.05446908 0.51647712 0.3580837
## Engagement              0.88013194 0.09200893 0.17310296 0.8815796
##           Social
## Challenge.Skill.Balance 0.07376761
## Action.Awareness       0.52176620
## Clear.Goals             0.97251384
## Unambiguous.Feedback    0.79769456
## Concentration           0.24908883
## Sense.of.Control        0.30847493
## Loss.of.Self.Consciousness 0.27888812
## Time.Transformation     0.68025917
## Autotelic.Experience    0.89421606
## Engagement              0.68540416
##
## [[3]]$traits_dfs_pls
## Partial Least Squares Path Modeling (PLS-PM)
## -----
##      NAME      DESCRIPTION
## 1 $outer_model  outer model
## 2 $inner_model  inner model
## 3 $path_coefs   path coefficients matrix
## 4 $scores       latent variable scores
## 5 $crossloadings cross-loadings
## 6 $inner_summary summary inner model
## 7 $effects      total effects
## 8 $unidim       unidimensionality
## 9 $gof          goodness-of-fit
## 10 $boot        bootstrap results
## 11 $data        data matrix
## -----
## You can also use the function 'summary'

## Warning: Setting row names on a tibble is deprecated.

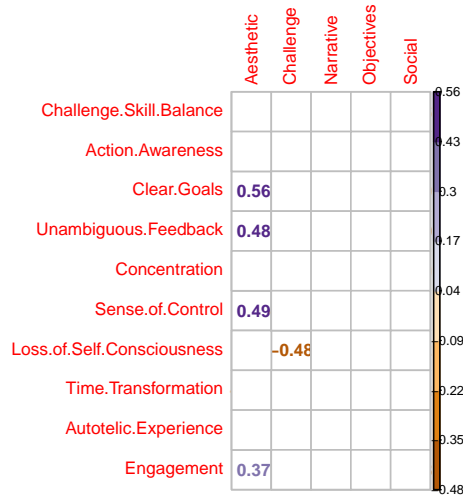
## Warning: Setting row names on a tibble is deprecated.

## Warning: Setting row names on a tibble is deprecated.

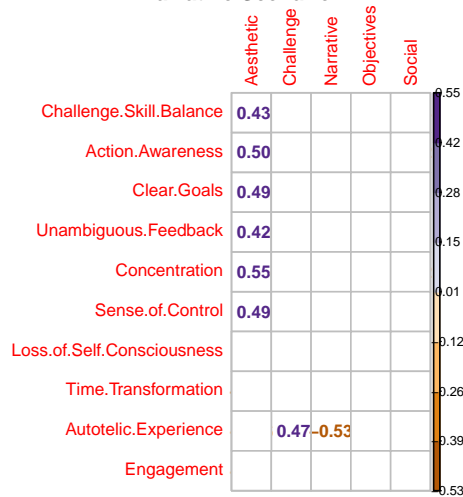
```

Significative level = 0.05

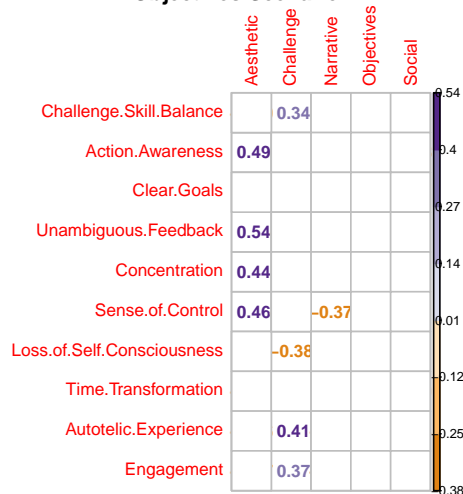
**Aesthetic Scenario**



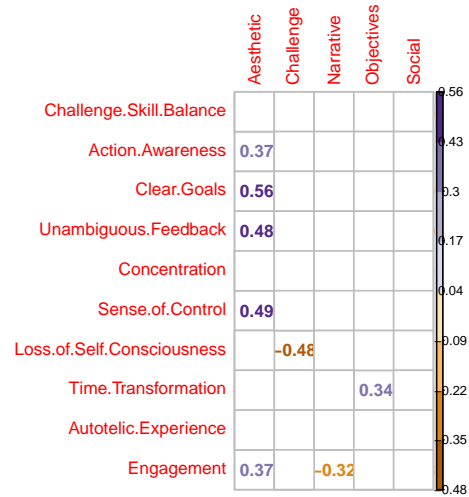
**Narrative Scenario**



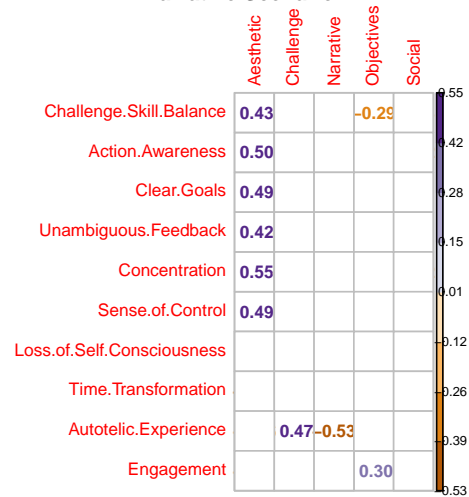
**Objectives Scenario**



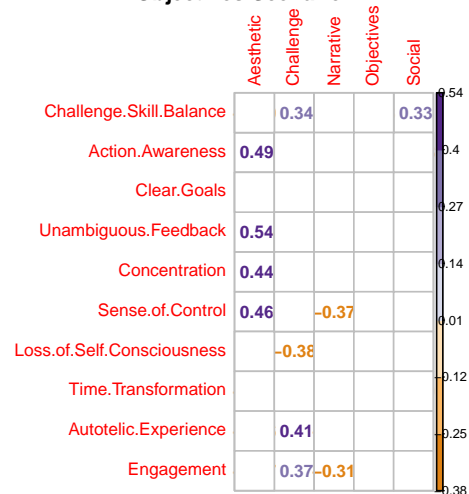
**Aesthetic Scenario**



**Narrative Scenario**



**Objectives Scenario**

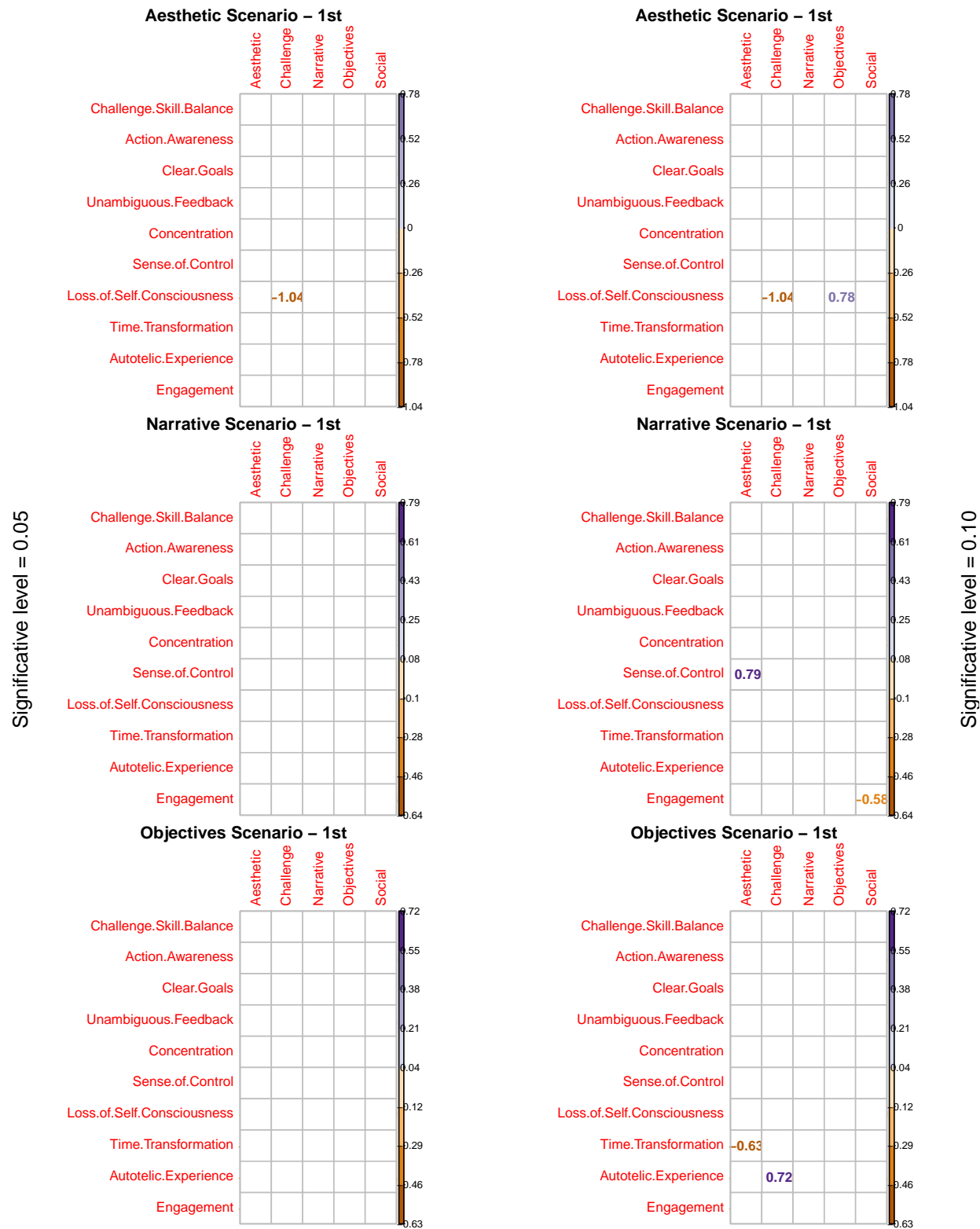


Significative level = 0.10

## Warning: Setting row names on a tibble is deprecated.

## Warning: Setting row names on a tibble is deprecated.

## Warning: Setting row names on a tibble is deprecated.



```
## [[1]]
## [[1]]$path_coefs
```

```

##           Aesthetic   Challenge   Narrative   Objectives
## Challenge.Skill.Balance  0.22799734 -0.01421751  0.16446017 -0.58022331
## Action.Awareness        -0.32570571 -0.35212537 -0.04985065 -0.08421685
## Clear.Goals              0.24346346  0.29699575  0.02556420  0.04282296
## Unambiguous.Feedback    -0.22011147 -0.31317708  0.14862895  0.28065116
## Concentration            0.65670264  0.03469770 -0.29576809 -0.26485980
## Sense.of.Control        -0.02940142 -0.50949016  0.28345292  0.08843587
## Loss.of.Self.Consciousness -0.63468925 -1.04386062  0.51788377  0.78038183
## Time.Transformation     -0.12492083 -0.29353246  0.14232270  0.37887951
## Autotelic.Experience     0.20007191  0.05544744 -0.19755186 -0.21905831
## Engagement              -0.32955575 -0.18229989  0.31408220  0.51091189
##
##           Social
## Challenge.Skill.Balance -0.23549321
## Action.Awareness        0.55177800
## Clear.Goals             -0.38132951
## Unambiguous.Feedback    0.12412511
## Concentration           -0.51600426
## Sense.of.Control        0.02766983
## Loss.of.Self.Consciousness 0.44336943
## Time.Transformation     -0.19778878
## Autotelic.Experience     0.10570251
## Engagement              -0.07667556
##
## [[1]]$p_values
##           Aesthetic   Challenge   Narrative   Objectives   Social
## Challenge.Skill.Balance  0.7286861 0.97534250 0.7561533 0.32895548 0.7224575
## Action.Awareness        0.6063191 0.43554838 0.9212073 0.87707127 0.3963720
## Clear.Goals             0.7298455 0.55347887 0.9639549 0.94410647 0.5944463
## Unambiguous.Feedback    0.7716653 0.56174265 0.8078407 0.67221397 0.8707605
## Concentration           0.3751820 0.94500015 0.6120325 0.67289494 0.4837373
## Sense.of.Control        0.9651541 0.30487543 0.6058388 0.88016485 0.9674801
## Loss.of.Self.Consciousness 0.1667435 0.01036143 0.1626153 0.06807931 0.3176549
## Time.Transformation     0.8581309 0.55610278 0.8009392 0.53983598 0.7794281
## Autotelic.Experience     0.7908919 0.91659621 0.7458718 0.73929618 0.8892717
## Engagement              0.6337366 0.70687006 0.5749472 0.40613355 0.9116257
##
## [[1]]$traits_dfs_pls
## Partial Least Squares Path Modeling (PLS-PM)
## -----
##      NAME      DESCRIPTION
## 1 $outer_model  outer model
## 2 $inner_model  inner model
## 3 $path_coefs   path coefficients matrix
## 4 $scores       latent variable scores
## 5 $crossloadings cross-loadings
## 6 $inner_summary summary inner model
## 7 $effects      total effects
## 8 $unidim       unidimensionality
## 9 $gof          goodness-of-fit
## 10 $boot        bootstrap results
## 11 $data        data matrix
## -----
## You can also use the function 'summary'
##

```

```

##
##
## [[2]]
## [[2]]$path_coefs
##           Aesthetic    Challenge    Narrative    Objectives
## Challenge.Skill.Balance 0.34472662 0.462559577 0.14782109 -0.01468770
## Action.Awareness       0.18617189 0.360967199 0.41618871 0.10256621
## Clear.Goals             0.52583965 -0.007284064 -0.03919001 0.22117888
## Unambiguous.Feedback    0.38211471 0.012603145 0.24000903 0.27609929
## Concentration          0.60539122 -0.493904519 0.11774345 0.12468015
## Sense.of.Control        0.78989832 -0.302064408 0.27740258 0.14472356
## Loss.of.Self.Consciousness 0.56412396 -0.638127180 0.11150572 0.09790396
## Time.Transformation     -0.26219711 0.643836890 0.31494905 -0.19734490
## Autotelic.Experience    0.07459706 0.574057322 -0.38892070 0.19307852
## Engagement              -0.05864500 0.258797297 -0.29111417 0.32837559
##           Social
## Challenge.Skill.Balance -0.2471971012
## Action.Awareness       -0.0540201387
## Clear.Goals             0.0006391094
## Unambiguous.Feedback    0.0766455256
## Concentration          -0.2790295138
## Sense.of.Control        -0.1725954930
## Loss.of.Self.Consciousness -0.1807659262
## Time.Transformation     -0.1498901333
## Autotelic.Experience    0.1809279637
## Engagement              -0.5786903343
##
## [[2]]$p_values
##           Aesthetic Challenge Narrative Objectives    Social
## Challenge.Skill.Balance 0.35886953 0.2090988 0.6420713 0.9629323 0.44224617
## Action.Awareness       0.62139227 0.3278380 0.2299524 0.7539182 0.86731445
## Clear.Goals             0.25753760 0.9860019 0.9182295 0.5690549 0.99865628
## Unambiguous.Feedback    0.37399991 0.9744176 0.5144219 0.4573332 0.83138237
## Concentration          0.19919086 0.2604777 0.7582005 0.7453681 0.47173592
## Sense.of.Control        0.05368545 0.3711235 0.3714571 0.6334261 0.56787490
## Loss.of.Self.Consciousness 0.21634075 0.1501481 0.7644311 0.7929420 0.62749502
## Time.Transformation     0.51750670 0.1251168 0.3796222 0.5753381 0.66597529
## Autotelic.Experience    0.83858023 0.1347643 0.2498878 0.5517704 0.57312162
## Engagement              0.86584113 0.4429133 0.3536219 0.3015839 0.09129061
##
## [[2]]$traits_dfs_pls
## Partial Least Squares Path Modeling (PLS-PM)
## -----
##      NAME      DESCRIPTION
## 1 $outer_model  outer model
## 2 $inner_model  inner model
## 3 $path_coefs   path coefficients matrix
## 4 $scores       latent variable scores
## 5 $crossloadings cross-loadings
## 6 $inner_summary summary inner model
## 7 $effects      total effects
## 8 $unidim       unidimensionality
## 9 $gof          goodness-of-fit
## 10 $boot        bootstrap results

```

```

## 11 $data          data matrix
## -----
## You can also use the function 'summary'
##
##
##
## [[3]]
## [[3]]$path_coefs
##
##           Aesthetic   Challenge   Narrative   Objectives
## Challenge.Skill.Balance -0.15604218  0.15568627  0.42745050 -0.22361698
## Action.Awareness        0.35184861  0.09769326  0.54151437 -0.03664451
## Clear.Goals             0.18505590  0.57515258 -0.38232649  0.12425244
## Unambiguous.Feedback    -0.05477630  0.69457816 -0.47420015  0.08352512
## Concentration           0.30019677  0.35661306 -0.02821079 -0.12521286
## Sense.of.Control        0.43476231  0.03511215 -0.56404475  0.28014062
## Loss.of.Self.Consciousness -0.00755084  0.55575395 -0.15683451 -0.39379494
## Time.Transformation     -0.63290987 -0.44966399  0.26553185  0.37788366
## Autotelic.Experience    -0.40617094  0.72189847 -0.44175617  0.18017008
## Engagement              -0.36399151  0.45955618 -0.42047073  0.31528781
##
##           Social
## Challenge.Skill.Balance  0.2831198
## Action.Awareness        -0.2555968
## Clear.Goals             -0.1448425
## Unambiguous.Feedback    -0.2269384
## Concentration           0.3466991
## Sense.of.Control        0.1308253
## Loss.of.Self.Consciousness -0.2039417
## Time.Transformation     0.1766678
## Autotelic.Experience    -0.2602896
## Engagement              0.4852575
##
## [[3]]$p_values
##
##           Aesthetic   Challenge   Narrative   Objectives   Social
## Challenge.Skill.Balance 0.68607936 0.71244837 0.3656504 0.6227989 0.4425506
## Action.Awareness       0.27245259 0.76979196 0.1686427 0.9181013 0.3850159
## Clear.Goals            0.63319691 0.20382250 0.4158157 0.7833572 0.6892087
## Unambiguous.Feedback   0.88074904 0.11996366 0.2975540 0.8455348 0.5146721
## Concentration          0.43322027 0.39758986 0.9492025 0.7753824 0.3404631
## Sense.of.Control       0.24610832 0.92760041 0.2101086 0.5068133 0.6940973
## Loss.of.Self.Consciousness 0.98426922 0.21655542 0.7316940 0.3962189 0.5751303
## Time.Transformation    0.08970096 0.23775760 0.5021446 0.3433121 0.5689883
## Autotelic.Experience   0.22479526 0.07056371 0.2617723 0.6272740 0.3903860
## Engagement             0.22909641 0.17374880 0.2407558 0.3611355 0.1053885
##
## [[3]]$traits_df$pls
## Partial Least Squares Path Modeling (PLS-PM)
## -----
##      NAME          DESCRIPTION
## 1  $outer_model    outer model
## 2  $inner_model     inner model
## 3  $path_coefs      path coefficients matrix
## 4  $scores          latent variable scores
## 5  $crossloadings   cross-loadings
## 6  $inner_summary   summary inner model

```



```

## 7 $effects      total effects
## 8 $unidim       unidimensionality
## 9 $gof          goodness-of-fit
## 10 $boot        bootstrap results
## 11 $data        data matrix
## -----
## You can also use the function 'summary'

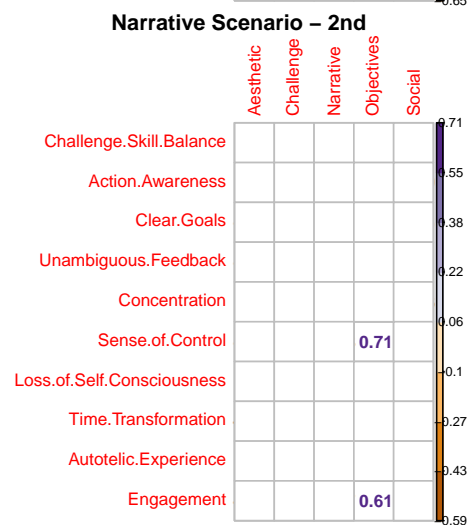
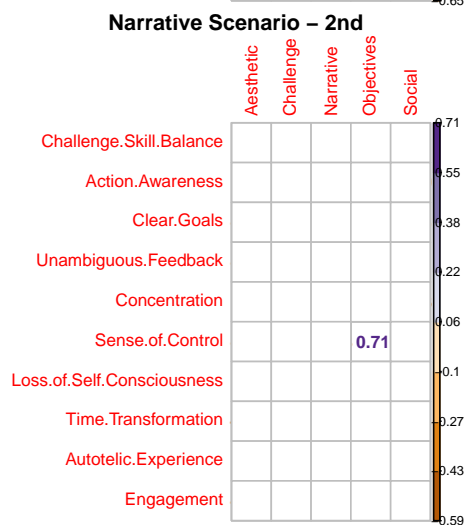
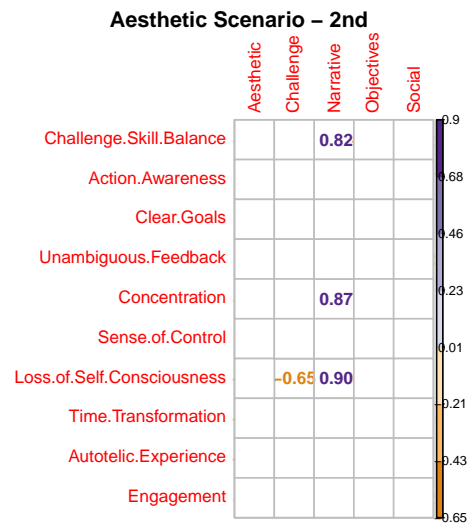
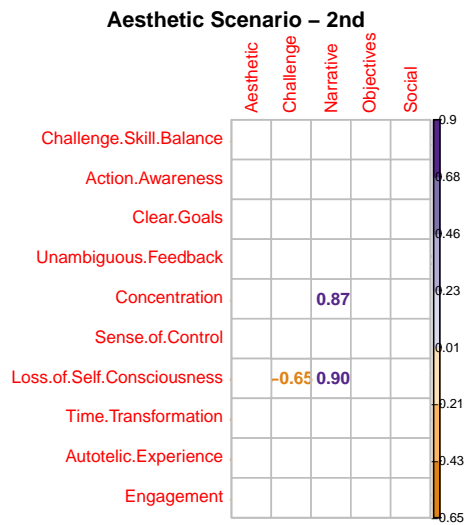
## Warning: Setting row names on a tibble is deprecated.

## Warning: Setting row names on a tibble is deprecated.

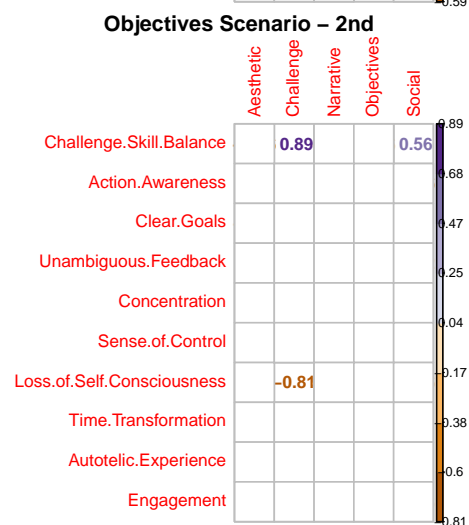
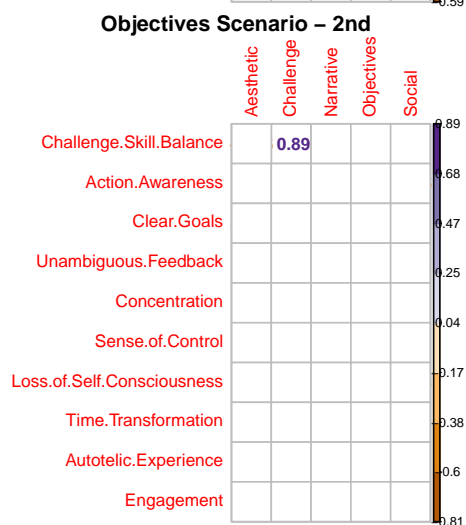
## Warning: Setting row names on a tibble is deprecated.

```

Significative level = 0.05



Significative level = 0.10



```
## [[1]]
## [[1]]$path_coefs
##           Aesthetic   Challenge   Narrative   Objectives
## Challenge.Skill.Balance -0.4305685 -0.007554236  0.82303997 -0.50462353
```

```

## Action.Awareness      0.1357898 -0.136321434  0.26169116 -0.07118116
## Clear.Goals           0.5669664  0.115818560 -0.09116603 -0.07845228
## Unambiguous.Feedback  0.2259746  0.020512711  0.26330669 -0.16712597
## Concentration         -0.3045011 -0.207977960  0.87185765  0.03553964
## Sense.of.Control      0.1417977 -0.050881082  0.41927305  0.06371775
## Loss.of.Self.Consciousness -0.5429733 -0.647805352  0.89665935 -0.29239595
## Time.Transformation   -0.6114824 -0.202142659  0.55250558 -0.17488090
## Autotelic.Experience  -0.6378430  0.112509698  0.59971509  0.11910855
## Engagement           -0.2805368  0.384635985  0.42752525  0.44829683
##
##                               Social
## Challenge.Skill.Balance -0.320216525
## Action.Awareness       -0.071443765
## Clear.Goals            -0.312291391
## Unambiguous.Feedback   -0.516415373
## Concentration          -0.118441938
## Sense.of.Control       0.001228643
## Loss.of.Self.Consciousness -0.068994576
## Time.Transformation    -0.047060843
## Autotelic.Experience   0.037024560
## Engagement            -0.415015035
##
## [[1]]$p_values
##
##                               Aesthetic  Challenge  Narrative  Objectives  Social
## Challenge.Skill.Balance  0.3285155  0.98275525  0.06938028  0.1964633  0.4089510
## Action.Awareness        0.8094592  0.77030787  0.61684533  0.8826646  0.8865946
## Clear.Goals             0.3162279  0.79643391  0.85489524  0.8658186  0.5243528
## Unambiguous.Feedback    0.6764156  0.96322685  0.59908633  0.7184306  0.3037857
## Concentration           0.4364191  0.51739853  0.04109559  0.9133933  0.7284153
## Sense.of.Control        0.7789905  0.90293501  0.38226002  0.8828266  0.9978150
## Loss.of.Self.Consciousness 0.1074817  0.03442672  0.01464697  0.2800020  0.7964390
## Time.Transformation     0.2504828  0.62974459  0.25850744  0.6863036  0.9161066
## Autotelic.Experience    0.1810898  0.75819659  0.17336956  0.7530973  0.9247059
## Engagement              0.3398503  0.13689345  0.13703472  0.1016683  0.1360154
##
## [[1]]$traits_dfs_pls
## Partial Least Squares Path Modeling (PLS-PM)
## -----
##      NAME      DESCRIPTION
## 1  $outer_model  outer model
## 2  $inner_model  inner model
## 3  $path_coefs   path coefficients matrix
## 4  $scores       latent variable scores
## 5  $crossloadings cross-loadings
## 6  $inner_summary summary inner model
## 7  $effects      total effects
## 8  $unidim       unidimensionality
## 9  $gof          goodness-of-fit
## 10 $boot         bootstrap results
## 11 $data         data matrix
## -----
## You can also use the function 'summary'
##
##
##

```

```

## [[2]]
## [[2]]$path_coefs
##
##           Aesthetic   Challenge   Narrative Objectives
## Challenge.Skill.Balance 0.150104228 -0.42107724 0.044739987 0.18132462
## Action.Awareness       0.414931744 -0.43136442 0.030276151 0.27468068
## Clear.Goals             -0.115736993 0.12398933 -0.266914999 0.49661653
## Unambiguous.Feedback    -0.016305167 -0.25852814 0.034089226 0.52649198
## Concentration           0.402155636 -0.41511496 -0.003806753 0.40811546
## Sense.of.Control        -0.091054458 0.04290597 -0.378385002 0.70964460
## Loss.of.Self.Consciousness 0.273177541 -0.39573122 0.370593081 0.03121810
## Time.Transformation     -0.434706805 -0.32966968 -0.150199609 0.20349216
## Autotelic.Experience    -0.002416896 -0.16061573 -0.593105899 0.02180349
## Engagement              -0.224269695 -0.54638608 -0.173323641 0.61264745
##
##           Social
## Challenge.Skill.Balance 0.20379105
## Action.Awareness       -0.18706781
## Clear.Goals             -0.03225164
## Unambiguous.Feedback    0.13250607
## Concentration           -0.52872635
## Sense.of.Control        0.04422614
## Loss.of.Self.Consciousness 0.38365161
## Time.Transformation     -0.04215062
## Autotelic.Experience    0.12016773
## Engagement              0.10817835
##
## [[2]]$p_values
##
##           Aesthetic Challenge Narrative Objectives   Social
## Challenge.Skill.Balance 0.7386967 0.3631953 0.9215565 0.67752489 0.6441333
## Action.Awareness       0.3465853 0.3276645 0.9438277 0.51042366 0.6537997
## Clear.Goals             0.7702698 0.7536759 0.5132020 0.22368517 0.9333170
## Unambiguous.Feedback    0.9705701 0.5629992 0.9393933 0.24614959 0.7596496
## Concentration           0.2312633 0.2168681 0.9904857 0.21142183 0.1229398
## Sense.of.Control        0.7641842 0.8868305 0.2457381 0.04455636 0.8809623
## Loss.of.Self.Consciousness 0.4014492 0.2373243 0.2727005 0.91846299 0.2416118
## Time.Transformation     0.2611026 0.3815339 0.6873279 0.56989098 0.9059385
## Autotelic.Experience    0.9950046 0.6785934 0.1654302 0.95339962 0.7508480
## Engagement              0.4905771 0.1228090 0.5961729 0.08329093 0.7291818
##
## [[2]]$traits_dfs_pls
## Partial Least Squares Path Modeling (PLS-PM)
## -----
##      NAME      DESCRIPTION
## 1 $outer_model  outer model
## 2 $inner_model  inner model
## 3 $path_coefs   path coefficients matrix
## 4 $scores       latent variable scores
## 5 $crossloadings cross-loadings
## 6 $inner_summary summary inner model
## 7 $effects      total effects
## 8 $unidim       unidimensionality
## 9 $gof          goodness-of-fit
## 10 $boot        bootstrap results
## 11 $data        data matrix
## -----

```

```

## You can also use the function 'summary'
##
##
## [[3]]
## [[3]]$path_coefs
##
##           Aesthetic    Challenge    Narrative    Objectives
## Challenge.Skill.Balance -0.56382920  0.89075414 -0.14651559 -0.25669071
## Action.Awareness        0.60692626  0.02371231 -0.03346890 -0.14161522
## Clear.Goals              -0.11068099 -0.68235117  0.33780122  0.58670194
## Unambiguous.Feedback     0.50605308 -0.07148951  0.08463845 -0.16638732
## Concentration            0.21733245  0.38296538 -0.30137092  0.04475589
## Sense.of.Control         0.61711013 -0.01227768 -0.29754332  0.13836738
## Loss.of.Self.Consciousness 0.28280977 -0.80830316 -0.43419256  0.34201087
## Time.Transformation      0.09726699 -0.35441905  0.64532289 -0.02049938
## Autotelic.Experience     0.61084264 -0.33604409 -0.22577671  0.10334575
## Engagement               0.61780823 -0.27205222 -0.30481796  0.13726388
##
##           Social
## Challenge.Skill.Balance  0.56286196
## Action.Awareness        -0.45818889
## Clear.Goals              0.40760785
## Unambiguous.Feedback     -0.01918658
## Concentration            0.10763181
## Sense.of.Control         0.23193307
## Loss.of.Self.Consciousness -0.25631242
## Time.Transformation      0.03834982
## Autotelic.Experience     0.06211700
## Engagement               -0.13387673
##
## [[3]]$p_values
##
##           Aesthetic    Challenge    Narrative    Objectives    Social
## Challenge.Skill.Balance  0.1334136  0.03947568  0.6246958  0.4811794  0.09428555
## Action.Awareness        0.2479949  0.96341525  0.9383411  0.7861471  0.31059076
## Clear.Goals              0.7560318  0.10353751  0.2997601  0.1523895  0.21881414
## Unambiguous.Feedback     0.3319707  0.89128279  0.8467852  0.7528004  0.96490905
## Concentration            0.6645661  0.47146337  0.4971590  0.9318158  0.80446243
## Sense.of.Control         0.1780417  0.97778408  0.4327491  0.7561824  0.53546518
## Loss.of.Self.Consciousness 0.4378603  0.06353263  0.1950632  0.3764547  0.42117447
## Time.Transformation      0.8217853  0.44344918  0.1245583  0.9639333  0.91876308
## Autotelic.Experience     0.2460073  0.52394802  0.6066029  0.8430729  0.88578979
## Engagement               0.2585851  0.61800596  0.5079450  0.8009779  0.76706341
##
## [[3]]$traits_dfpls
## Partial Least Squares Path Modeling (PLS-PM)
## -----
##      NAME      DESCRIPTION
## 1 $outer_model  outer model
## 2 $inner_model  inner model
## 3 $path_coefs   path coefficients matrix
## 4 $scores       latent variable scores
## 5 $crossloadings cross-loadings
## 6 $inner_summary summary inner model
## 7 $effects      total effects
## 8 $unidim       unidimensionality

```

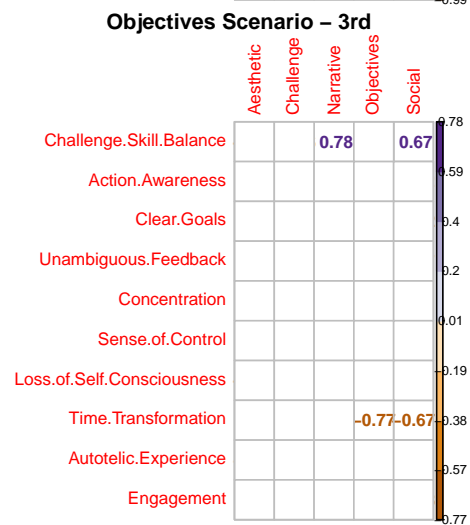
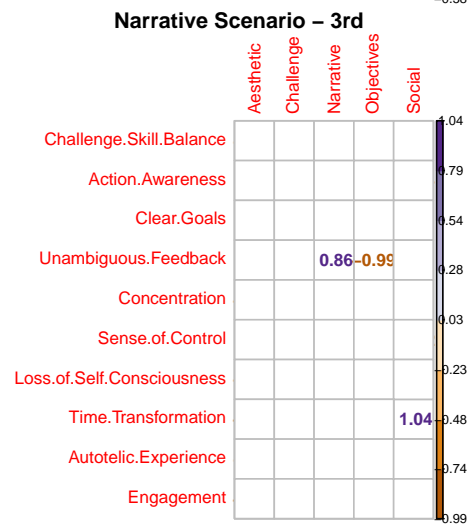
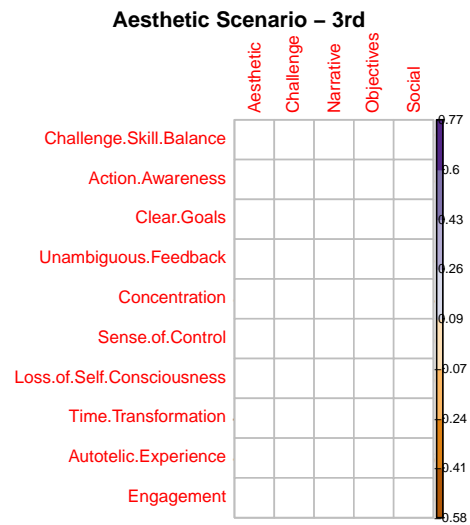
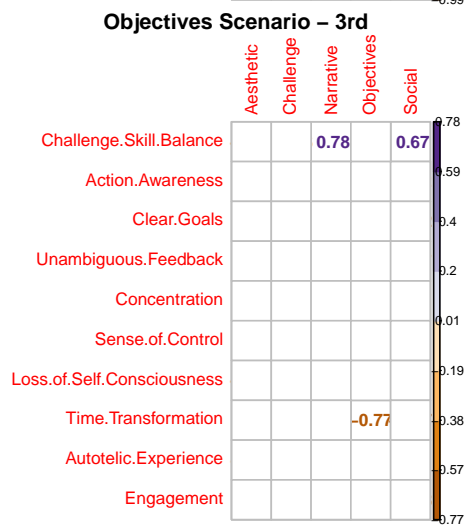
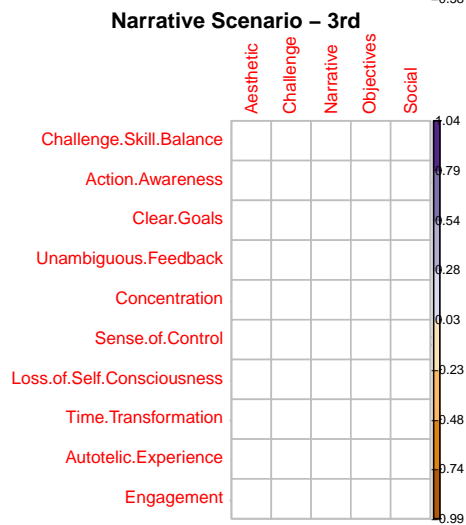
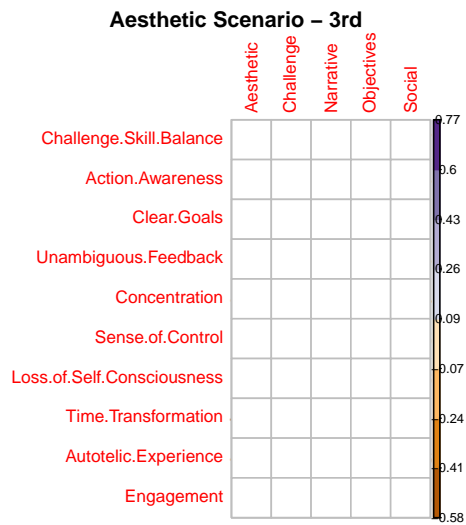
```
## 9  $gof          goodness-of-fit
## 10 $boot         bootstrap results
## 11 $data         data matrix
## -----
## You can also use the function 'summary'

## Warning: Setting row names on a tibble is deprecated.

## Warning: Setting row names on a tibble is deprecated.

## Warning: Setting row names on a tibble is deprecated.
```

Significative level = 0.05



Significative level = 0.10

```
## [[1]]
## [[1]]$path_coefs
##           Aesthetic  Challenge  Narrative  Objectives
## Challenge.Skill.Balance 0.17410939 0.6328566 -0.15289219 -0.01783148
```

```

## Action.Awareness      0.19823075  0.7398102 -0.31006826 -0.08081411
## Clear.Goals           0.36009516  0.3379453 -0.06751634 -0.47179321
## Unambiguous.Feedback  0.51851235  0.2816218 -0.01598549 -0.17049875
## Concentration         -0.03931733  0.4246706  0.17925798 -0.09228058
## Sense.of.Control      0.30941630  0.6962832 -0.40154899 -0.16146314
## Loss.of.Self.Consciousness 0.25681879 -0.3224633 -0.21546448  0.20195756
## Time.Transformation   -0.57699974  0.3484747 -0.02747280  0.49626756
## Autotelic.Experience  -0.21990303  0.7669269 -0.13653962 -0.12483146
## Engagement            0.22839935 -0.3073039 -0.53837903  0.52843677
##
##                      Social
## Challenge.Skill.Balance -0.06991485
## Action.Awareness       -0.14228992
## Clear.Goals            0.02369421
## Unambiguous.Feedback   -0.13528934
## Concentration          -0.24155185
## Sense.of.Control       -0.04616695
## Loss.of.Self.Consciousness -0.17936404
## Time.Transformation     0.21424431
## Autotelic.Experience   -0.25993247
## Engagement             -0.14521491
##
## [[1]]$p_values
##
##                      Aesthetic Challenge Narrative Objectives      Social
## Challenge.Skill.Balance 0.7274470 0.2988640 0.6856264 0.9644061 0.8339213
## Action.Awareness       0.6425002 0.1694070 0.3503027 0.8126400 0.6193425
## Clear.Goals            0.4937315 0.5795020 0.8623186 0.2800945 0.9452697
## Unambiguous.Feedback   0.3044768 0.6202120 0.9649054 0.6623409 0.6771628
## Concentration          0.9468332 0.5439196 0.6890872 0.8459082 0.5472223
## Sense.of.Control       0.4193327 0.1458170 0.1866139 0.5941374 0.8532464
## Loss.of.Self.Consciousness 0.7046793 0.6838775 0.6739415 0.7108308 0.6928523
## Time.Transformation     0.2487318 0.5333778 0.9383936 0.2209162 0.5054890
## Autotelic.Experience   0.6974916 0.2687891 0.7485723 0.7830674 0.4986658
## Engagement             0.6988528 0.6564323 0.2517543 0.2871112 0.7132646
##
## [[1]]$traits_dfs_pls
## Partial Least Squares Path Modeling (PLS-PM)
## -----
##      NAME      DESCRIPTION
## 1  $outer_model  outer model
## 2  $inner_model  inner model
## 3  $path_coefs   path coefficients matrix
## 4  $scores       latent variable scores
## 5  $crossloadings cross-loadings
## 6  $inner_summary summary inner model
## 7  $effects      total effects
## 8  $unidim       unidimensionality
## 9  $gof          goodness-of-fit
## 10 $boot         bootstrap results
## 11 $data         data matrix
## -----
## You can also use the function 'summary'
##
##
##

```



```

## [[2]]
## [[2]]$path_coefs
##
##      Aesthetic      Challenge      Narrative      Objectives
## Challenge.Skill.Balance -0.2138323 -0.956137073  0.08746676  0.46250973
## Action.Awareness        0.5107394 -0.005798756  0.07010795 -0.34027236
## Clear.Goals              0.4316129 -0.356750983  0.43453271 -0.32015233
## Unambiguous.Feedback     0.5758227  0.046759853  0.85655213 -0.99084403
## Concentration           -0.3908807 -0.429922135  0.24256577  0.11766321
## Sense.of.Control         0.5293347  0.428605104  0.14217593 -0.83965104
## Loss.of.Self.Consciousness -0.3640214 -0.192128819 -0.02544778  0.03872291
## Time.Transformation     -0.7331454 -0.160738046 -0.39303073  0.48270253
## Autotelic.Experience    -0.1622367  0.667042903 -0.13919736 -0.55812655
## Engagement              -0.6349002 -0.311706075 -0.42077147  0.79957766
##
##      Social
## Challenge.Skill.Balance  0.53607932
## Action.Awareness        -0.43563791
## Clear.Goals              0.18260491
## Unambiguous.Feedback     -0.51361452
## Concentration            0.56146855
## Sense.of.Control         -0.52353451
## Loss.of.Self.Consciousness 0.34108181
## Time.Transformation      1.04424210
## Autotelic.Experience     0.03859347
## Engagement               0.90515405
##
## [[2]]$p_values
##
##      Aesthetic      Challenge      Narrative      Objectives      Social
## Challenge.Skill.Balance  0.6824650  0.1290172  0.87936592  0.48879786  0.4052736
## Action.Awareness        0.4101419  0.9929551  0.91638361  0.65640340  0.5535462
## Clear.Goals              0.2395189  0.3611821  0.28101693  0.47146048  0.6624166
## Unambiguous.Feedback     0.1689014  0.9112133  0.08090219  0.07670152  0.2904962
## Concentration            0.5324235  0.5295477  0.72386243  0.87952897  0.4593882
## Sense.of.Control         0.3849603  0.5131981  0.82812925  0.28300939  0.4705339
## Loss.of.Self.Consciousness 0.5865126  0.7905745  0.97230426  0.96290523  0.6703715
## Time.Transformation      0.1511584  0.7524677  0.45717966  0.42331168  0.0995590
## Autotelic.Experience     0.7313061  0.2242503  0.79019570  0.36400239  0.9456113
## Engagement               0.2786232  0.6115617  0.50360348  0.27900716  0.2079643
##
## [[2]]$traits_dfs_pls
## Partial Least Squares Path Modeling (PLS-PM)
## -----
##      NAME      DESCRIPTION
## 1 $outer_model  outer model
## 2 $inner_model  inner model
## 3 $path_coefs   path coefficients matrix
## 4 $scores       latent variable scores
## 5 $crossloadings cross-loadings
## 6 $inner_summary summary inner model
## 7 $effects      total effects
## 8 $unidim       unidimensionality
## 9 $gof          goodness-of-fit
## 10 $boot        bootstrap results
## 11 $data        data matrix
## -----

```

```

## You can also use the function 'summary'
##
##
## [[3]]
## [[3]]$path_coefs
##
##           Aesthetic    Challenge    Narrative    Objectives
## Challenge.Skill.Balance -0.34973663 -0.26338066  0.78461645  0.33966647
## Action.Awareness        0.46206121 -0.11591100 -0.03396020 -0.35800339
## Clear.Goals              0.65717582 -0.03444117  0.05204445 -0.30284998
## Unambiguous.Feedback     0.61161353 -0.18826492  0.18816823 -0.22631528
## Concentration            0.69755812 -0.04423652  0.00992032  0.34516483
## Sense.of.Control         0.23592915 -0.12900335  0.15877878  0.51203739
## Loss.of.Self.Consciousness -0.32763957 -0.28262698  0.60513988  0.02435785
## Time.Transformation      0.06564675 -0.05421372 -0.53363382 -0.76818530
## Autotelic.Experience     -0.02818554  0.36810937 -0.49223325 -0.26469580
## Engagement               0.54457820  0.41866533 -0.46107261 -0.19505183
##
##           Social
## Challenge.Skill.Balance  0.66817061
## Action.Awareness        -0.11997280
## Clear.Goals              -0.42452636
## Unambiguous.Feedback     -0.16685654
## Concentration            0.03359855
## Sense.of.Control         0.35467190
## Loss.of.Self.Consciousness 0.25434756
## Time.Transformation      -0.67342033
## Autotelic.Experience     0.32989052
## Engagement               -0.47672731
##
## [[3]]$p_values
##
##           Aesthetic Challenge    Narrative    Objectives    Social
## Challenge.Skill.Balance  0.1953420 0.1489519 0.01124129 0.15115609 0.02417934
## Action.Awareness        0.4302421 0.7598590 0.94752873 0.47532154 0.82117233
## Clear.Goals              0.2512661 0.9233271 0.91523365 0.52192647 0.41163554
## Unambiguous.Feedback     0.2126427 0.5413096 0.65249552 0.57069870 0.69660346
## Concentration            0.1341084 0.8738981 0.97919410 0.35789723 0.93144421
## Sense.of.Control         0.6449159 0.7030272 0.73094798 0.26715384 0.46276626
## Loss.of.Self.Consciousness 0.5093333 0.3966162 0.20258372 0.95364803 0.57942882
## Time.Transformation      0.8516394 0.8159296 0.13026336 0.03776529 0.07464086
## Autotelic.Experience     0.9540341 0.2812500 0.29062045 0.53626318 0.47796489
## Engagement               0.2792224 0.2170181 0.30877931 0.63816451 0.30554689
##
## [[3]]$traits_dfs_pls
## Partial Least Squares Path Modeling (PLS-PM)
## -----
##      NAME      DESCRIPTION
## 1 $outer_model  outer model
## 2 $inner_model  inner model
## 3 $path_coefs   path coefficients matrix
## 4 $scores       latent variable scores
## 5 $crossloadings cross-loadings
## 6 $inner_summary summary inner model
## 7 $effects      total effects
## 8 $unidim       unidimensionality

```

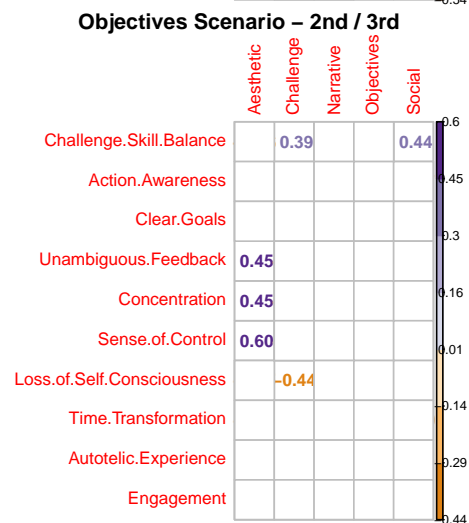
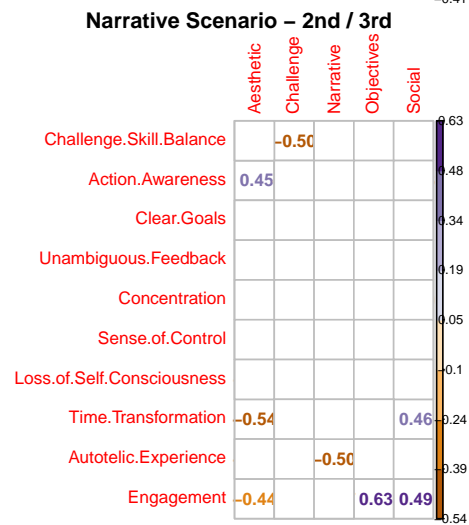
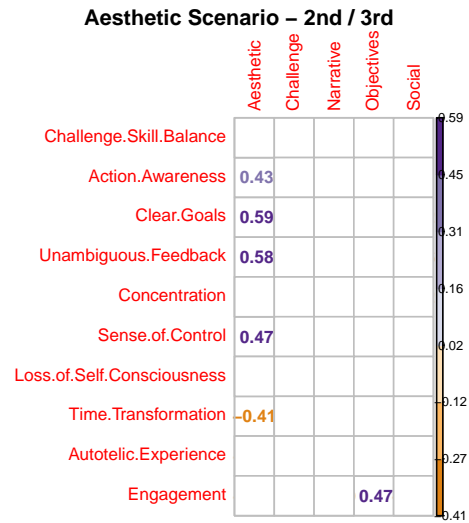
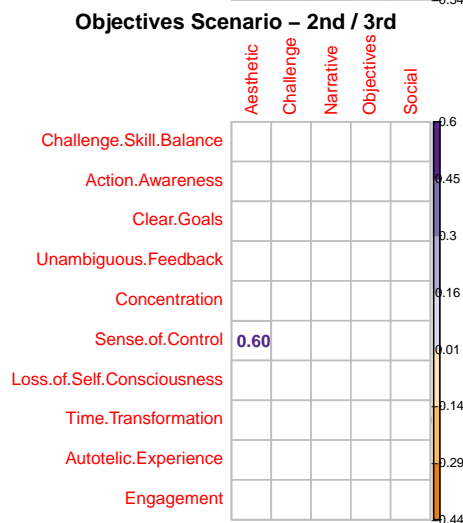
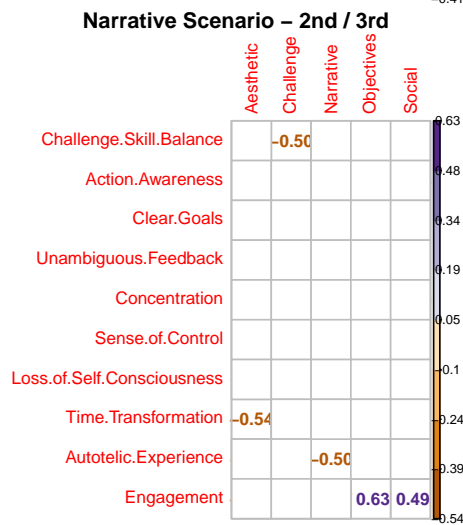
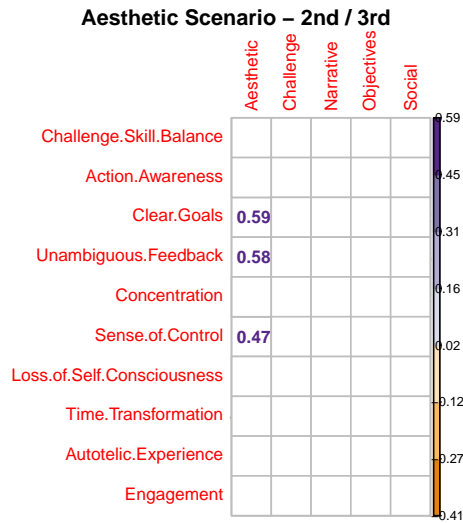
```
## 9  $gof          goodness-of-fit
## 10 $boot         bootstrap results
## 11 $data         data matrix
## -----
## You can also use the function 'summary'

## Warning: Setting row names on a tibble is deprecated.

## Warning: Setting row names on a tibble is deprecated.

## Warning: Setting row names on a tibble is deprecated.
```

Significative level = 0.05



Significative level = 0.10

```
## [[1]]
## [[1]]$path_coefs
##           Aesthetic  Challenge  Narrative  Objectives
## Challenge.Skill.Balance 0.12340545 0.31185256 0.150901560 -0.19835347
```

```

## Action.Awareness      0.42916161 -0.02159314  0.005625588  0.02995949
## Clear.Goals           0.59447800  0.06995200 -0.140717863 -0.16787098
## Unambiguous.Feedback  0.57669140  0.17723002 -0.032919179 -0.09995048
## Concentration         0.19993979 -0.13776264  0.369224809  0.09031934
## Sense.of.Control      0.47427192 -0.03405160  0.036586518  0.08561600
## Loss.of.Self.Consciousness 0.22064020 -0.37282572  0.247176560 -0.04599542
## Time.Transformation   -0.41248345  0.10659421  0.140380853  0.28764269
## Autotelic.Experience  -0.11059652  0.35047450  0.074011140  0.04508565
## Engagement            -0.02726085  0.11293408 -0.297546816  0.47118885
##
##                      Social
## Challenge.Skill.Balance -0.111966639
## Action.Awareness       0.002330604
## Clear.Goals            -0.116902653
## Unambiguous.Feedback   -0.259032592
## Concentration          -0.017525465
## Sense.of.Control       0.086195718
## Loss.of.Self.Consciousness 0.030471235
## Time.Transformation    0.110565633
## Autotelic.Experience   0.038017998
## Engagement            -0.105562547
##
## [[1]]$p_values
##
##                      Aesthetic Challenge Narrative Objectives      Social
## Challenge.Skill.Balance 0.61515407 0.2057573 0.5493053 0.42580849 0.6266469
## Action.Awareness       0.08850604 0.9277096 0.9818808 0.90223924 0.9917950
## Clear.Goals            0.01221579 0.7431337 0.5282229 0.44587621 0.5664716
## Unambiguous.Feedback   0.01227362 0.3965615 0.8785622 0.63841532 0.1992022
## Concentration          0.40365432 0.5570499 0.1407776 0.70631954 0.9371743
## Sense.of.Control       0.04877360 0.8792537 0.8753940 0.70978666 0.6869541
## Loss.of.Self.Consciousness 0.37204181 0.1336470 0.3303315 0.85211876 0.8942622
## Time.Transformation    0.09096141 0.6449481 0.5605901 0.23301777 0.6159504
## Autotelic.Experience   0.65732500 0.1638595 0.7717660 0.85744881 0.8705292
## Engagement            0.90787011 0.6274830 0.2274208 0.05963714 0.6338212
##
## [[1]]$traits_dfs_pls
## Partial Least Squares Path Modeling (PLS-PM)
## -----
##      NAME      DESCRIPTION
## 1  $outer_model  outer model
## 2  $inner_model  inner model
## 3  $path_coefs   path coefficients matrix
## 4  $scores       latent variable scores
## 5  $crossloadings cross-loadings
## 6  $inner_summary summary inner model
## 7  $effects      total effects
## 8  $unidim       unidimensionality
## 9  $gof          goodness-of-fit
## 10 $boot         bootstrap results
## 11 $data         data matrix
## -----
## You can also use the function 'summary'
##
##
##

```

```

## [[2]]
## [[2]]$path_coefs
##
##      Aesthetic    Challenge    Narrative    Objectives
## Challenge.Skill.Balance  0.1135068 -0.50368219  0.04836496  0.19780505
## Action.Awareness        0.4499088 -0.14610163 -0.10445873  0.01175894
## Clear.Goals              0.3629874 -0.07208101 -0.31431403  0.29242026
## Unambiguous.Feedback     0.2194034 -0.25888687 -0.05338401  0.23021113
## Concentration            0.1376869 -0.19447914 -0.02980172  0.29407235
## Sense.of.Control         0.1069020 -0.10222047 -0.38352473  0.25678969
## Loss.of.Self.Consciousness -0.1563508 -0.31511429  0.40202049 -0.05177726
## Time.Transformation      -0.5359414 -0.24961786 -0.23928626  0.32596836
## Autotelic.Experience     -0.2467454  0.31409700 -0.50467354 -0.11279095
## Engagement               -0.4351567 -0.29737227 -0.26630770  0.62841128
##
##      Social
## Challenge.Skill.Balance  0.217217324
## Action.Awareness        -0.231599188
## Clear.Goals              0.080656685
## Unambiguous.Feedback     0.109390511
## Concentration            -0.093045309
## Sense.of.Control         -0.004417199
## Loss.of.Self.Consciousness 0.305213112
## Time.Transformation      0.456296787
## Autotelic.Experience     0.304206786
## Engagement               0.494914752
##
## [[2]]$p_values
##
##      Aesthetic    Challenge    Narrative    Objectives
## Challenge.Skill.Balance  0.64301496 0.04770228 0.84515622 0.44384851
## Action.Awareness        0.08821175 0.55949028 0.68458644 0.96467958
## Clear.Goals              0.15696264 0.76917002 0.22320287 0.27168184
## Unambiguous.Feedback     0.40759738 0.32292787 0.84101083 0.40760234
## Concentration            0.60453332 0.45923614 0.91163353 0.29744635
## Sense.of.Control         0.67936057 0.68802859 0.15436520 0.34888661
## Loss.of.Self.Consciousness 0.50450779 0.18020351 0.10121274 0.83222551
## Time.Transformation      0.02714339 0.27009750 0.30349769 0.18025709
## Autotelic.Experience     0.27100577 0.15924188 0.03423021 0.62676926
## Engagement               0.06111737 0.18250785 0.24349300 0.01319738
##
##      Social
## Challenge.Skill.Balance  0.39169799
## Action.Awareness        0.37856819
## Clear.Goals              0.75318591
## Unambiguous.Feedback     0.68570469
## Concentration            0.73293811
## Sense.of.Control         0.98671101
## Loss.of.Self.Consciousness 0.21222194
## Time.Transformation      0.06175201
## Autotelic.Experience     0.18996684
## Engagement               0.04028527
##
## [[2]]$traits_dfpls
## Partial Least Squares Path Modeling (PLS-PM)
## -----
##      NAME      DESCRIPTION
## 1  $outer_model  outer model

```

```

## 2 $inner_model      inner model
## 3 $path_coefs       path coefficients matrix
## 4 $scores           latent variable scores
## 5 $crossloadings    cross-loadings
## 6 $inner_summary    summary inner model
## 7 $effects          total effects
## 8 $unidim           unidimensionality
## 9 $gof              goodness-of-fit
## 10 $boot            bootstrap results
## 11 $data            data matrix
## -----
## You can also use the function 'summary'
##
##
## [[3]]
## [[3]]$path_coefs
##
##           Aesthetic   Challenge   Narrative   Objectives
## Challenge.Skill.Balance -0.25861268  0.39338798  0.12250377  0.04055101
## Action.Awareness        0.34058168 -0.04623900  0.08538317 -0.22685445
## Clear.Goals             0.05873050 -0.21378712  0.38534013  0.13283844
## Unambiguous.Feedback    0.45212753 -0.22369891  0.21689797 -0.12306467
## Concentration           0.45339279 -0.17037373 -0.09506658  0.30849136
## Sense.of.Control        0.59831327 -0.12375816 -0.18368421  0.22878978
## Loss.of.Self.Consciousness -0.05247289 -0.43581004  0.22605757 -0.04955892
## Time.Transformation     -0.01734291 -0.05347405  0.14702252 -0.16606366
## Autotelic.Experience    0.23262395  0.26958174 -0.17990798 -0.22857293
## Engagement              0.40602232  0.23211231 -0.30142678 -0.11248841
##
##           Social
## Challenge.Skill.Balance  0.44426393
## Action.Awareness        -0.06556191
## Clear.Goals             0.05795952
## Unambiguous.Feedback    0.03438653
## Concentration           0.16805771
## Sense.of.Control        0.18961378
## Loss.of.Self.Consciousness 0.19990258
## Time.Transformation     -0.29990482
## Autotelic.Experience    -0.04673705
## Engagement              -0.31425554
##
## [[3]]$p_values
##
##           Aesthetic   Challenge   Narrative   Objectives
## Challenge.Skill.Balance 0.30502568 0.09120715 0.5864157 0.8569667
## Action.Awareness       0.21971956 0.85003397 0.7281200 0.3619624
## Clear.Goals            0.82459955 0.37505437 0.1195466 0.5811942
## Unambiguous.Feedback   0.06706602 0.29813680 0.3141014 0.5652346
## Concentration          0.08539546 0.45709135 0.6774854 0.1882013
## Sense.of.Control       0.01683339 0.55242182 0.3821570 0.2805244
## Loss.of.Self.Consciousness 0.83338344 0.06445865 0.3219325 0.8263236
## Time.Transformation    0.95132817 0.83444824 0.5683116 0.5210262
## Autotelic.Experience   0.40223260 0.28385145 0.4718622 0.3641820
## Engagement             0.12686258 0.32275546 0.2046151 0.6302147
##
##           Social
## Challenge.Skill.Balance 0.08047485

```

```

## Action.Awareness          0.80544903
## Clear.Goals               0.82325809
## Unambiguous.Feedback      0.88137083
## Concentration             0.49961290
## Sense.of.Control          0.40509409
## Loss.of.Self.Consciousness 0.41721494
## Time.Transformation       0.28879808
## Autotelic.Experience      0.86224846
## Engagement                0.22196122
##
## [[3]]$traits_dfs_pls
## Partial Least Squares Path Modeling (PLS-PM)
## -----
##      NAME          DESCRIPTION
## 1  $outer_model    outer model
## 2  $inner_model    inner model
## 3  $path_coefs     path coefficients matrix
## 4  $scores         latent variable scores
## 5  $crossloadings  cross-loadings
## 6  $inner_summary  summary inner model
## 7  $effects        total effects
## 8  $unidim         unidimensionality
## 9  $gof            goodness-of-fit
## 10 $boot           bootstrap results
## 11 $data           data matrix
## -----
## You can also use the function 'summary'

## Warning: Setting row names on a tibble is deprecated.

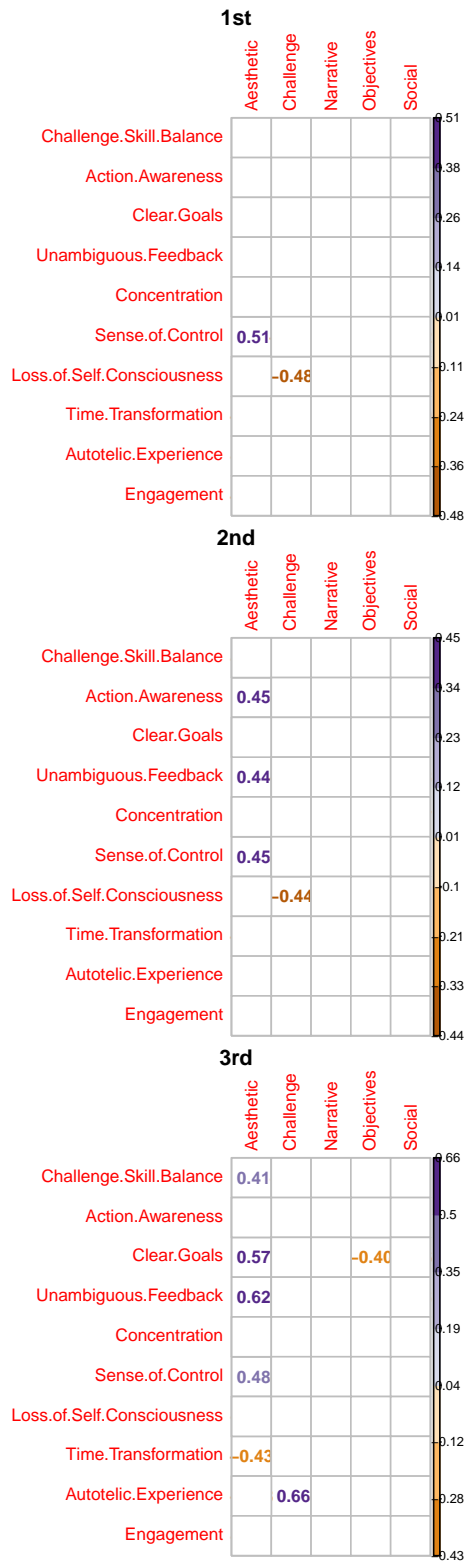
## Warning: Setting row names on a tibble is deprecated.

## Warning: Setting row names on a tibble is deprecated.

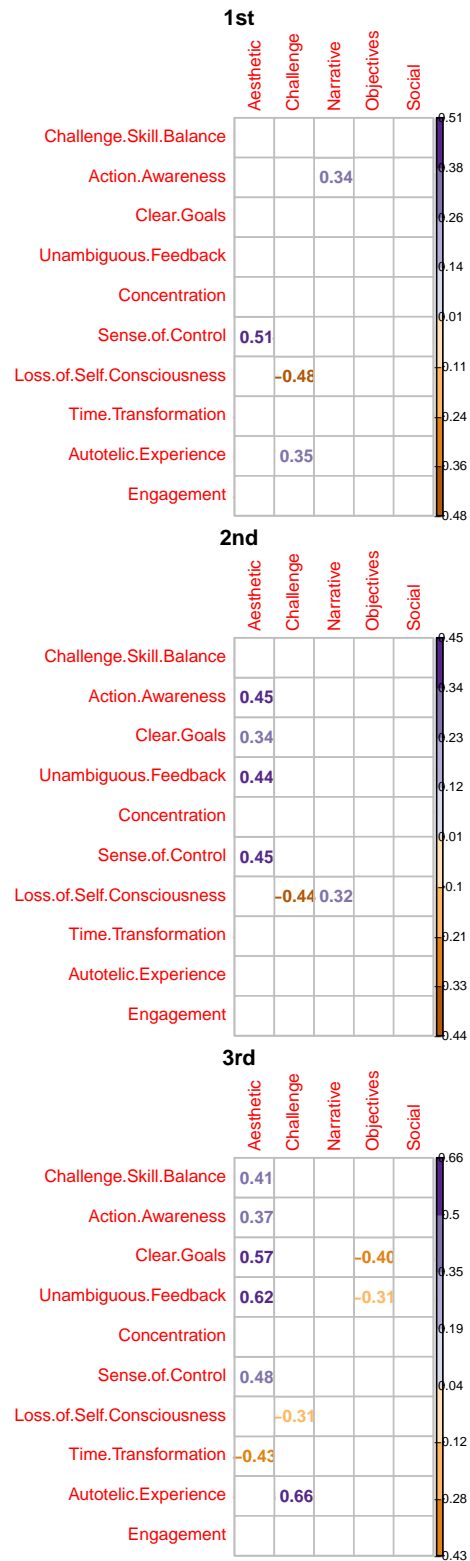
```



Significative level = 0.05



Significative level = 0.10



```
## [[1]]
## [[1]]$path_coefs
##               Aesthetic  Challenge  Narrative  Objectives
## Challenge.Skill.Balance 0.164116765 0.20856669 0.30964256 -0.30774243
```

```

## Action.Awareness      0.155170566  0.01553906  0.34401408 -0.06901830
## Clear.Goals           0.086342750  0.21103976 -0.07132935  0.24278012
## Unambiguous.Feedback -0.002809031  0.04953427  0.06472649  0.19802258
## Concentration         0.330704134 -0.13914153  0.04607172  0.04913810
## Sense.of.Control      0.505075414 -0.27734554 -0.06254680  0.11719284
## Loss.of.Self.Consciousness 0.138886924 -0.48174487  0.21652907  0.10693546
## Time.Transformation   -0.214248572  0.03400244  0.16100570  0.12898033
## Autotelic.Experience -0.068842660  0.35109499 -0.16735601 -0.02606096
## Engagement            -0.164921890  0.18663628 -0.04549462  0.18793963
##
##                      Social
## Challenge.Skill.Balance -0.06695327
## Action.Awareness      -0.10472829
## Clear.Goals           -0.00038931
## Unambiguous.Feedback   0.06319767
## Concentration         -0.10873084
## Sense.of.Control      -0.01749877
## Loss.of.Self.Consciousness -0.01545509
## Time.Transformation   -0.09547812
## Autotelic.Experience   0.12441387
## Engagement            0.06533785
##
## [[1]]$p_values
##
##                      Aesthetic  Challenge  Narrative Objectives
## Challenge.Skill.Balance 0.387171647 0.25241601 0.10157715 0.1038371
## Action.Awareness      0.430767142 0.93385797 0.08090591 0.7197852
## Clear.Goals           0.660206477 0.26508244 0.71087067 0.2128615
## Unambiguous.Feedback  0.989089248 0.80088491 0.74807313 0.3296177
## Concentration         0.107563039 0.47083995 0.81521655 0.8033130
## Sense.of.Control      0.009510172 0.12186109 0.72876122 0.5172202
## Loss.of.Self.Consciousness 0.457962654 0.01051806 0.24110101 0.5594843
## Time.Transformation   0.294082933 0.86042667 0.41940914 0.5172113
## Autotelic.Experience  0.728659304 0.07145232 0.39205389 0.8934068
## Engagement            0.417075750 0.33763348 0.81844250 0.3467398
##
##                      Social
## Challenge.Skill.Balance 0.7212380
## Action.Awareness      0.5916095
## Clear.Goals           0.9984062
## Unambiguous.Feedback   0.7571058
## Concentration         0.5872512
## Sense.of.Control      0.9237055
## Loss.of.Self.Consciousness 0.9334721
## Time.Transformation   0.6355540
## Autotelic.Experience  0.5291610
## Engagement            0.7452024
##
## [[1]]$traits_dfs_pls
## Partial Least Squares Path Modeling (PLS-PM)
## -----
##      NAME      DESCRIPTION
## 1 $outer_model  outer model
## 2 $inner_model  inner model
## 3 $path_coefs   path coefficients matrix
## 4 $scores       latent variable scores
## 5 $crossloadings cross-loadings

```

```

## 6 $inner_summary    summary inner model
## 7 $effects          total effects
## 8 $unidim           unidimensionality
## 9 $gof              goodness-of-fit
## 10 $boot            bootstrap results
## 11 $data            data matrix
## -----
## You can also use the function 'summary'
##
##
## [[2]]
## [[2]]$path_coefs
##
##           Aesthetic    Challenge    Narrative    Objectives
## Challenge.Skill.Balance -0.07475489  0.309660867  0.06103016 -0.11661305
## Action.Awareness        0.45282280 -0.070538339 -0.00842226 -0.01239735
## Clear.Goals              0.33919684 -0.161545702 -0.18908205  0.20910356
## Unambiguous.Feedback     0.44402741 -0.149567827 -0.10543878  0.07657307
## Concentration            0.27888727 -0.135545071  0.11379180  0.23455087
## Sense.of.Control         0.44852171 -0.062498807 -0.15921321  0.28723400
## Loss.of.Self.Consciousness 0.07878400 -0.437245870  0.31866161 -0.06266738
## Time.Transformation     -0.13858927 -0.254428356  0.07473620  0.07198781
## Autotelic.Experience     0.03330169  0.009963232 -0.11726415  0.03474303
## Engagement               0.27463129 -0.038801405 -0.18255879  0.21295418
##
##           Social
## Challenge.Skill.Balance  0.09183620
## Action.Awareness        -0.10645797
## Clear.Goals              0.04677320
## Unambiguous.Feedback     -0.08320070
## Concentration            -0.06735514
## Sense.of.Control         0.11237118
## Loss.of.Self.Consciousness 0.05975141
## Time.Transformation      0.02197576
## Autotelic.Experience     0.10460741
## Engagement               -0.08484527
##
## [[2]]$p_values
##
##           Aesthetic    Challenge    Narrative    Objectives
## Challenge.Skill.Balance  0.71109011  0.11552144  0.75762613  0.5565425
## Action.Awareness        0.02520722  0.70366821  0.96464053  0.9480099
## Clear.Goals              0.09262410  0.39351371  0.33111331  0.2836555
## Unambiguous.Feedback     0.02846998  0.42357460  0.58125487  0.6886006
## Concentration            0.15936339  0.46869892  0.55256525  0.2255921
## Sense.of.Control         0.01782581  0.71727314  0.37119430  0.1121513
## Loss.of.Self.Consciousness 0.66471364  0.01641799  0.08092162  0.7251039
## Time.Transformation      0.49763130  0.19717409  0.70830697  0.7187386
## Autotelic.Experience     0.87428641  0.96048752  0.57075614  0.8663719
## Engagement               0.17731570  0.83953626  0.35629396  0.2834816
##
##           Social
## Challenge.Skill.Balance  0.6473004
## Action.Awareness        0.5814966
## Clear.Goals              0.8111974
## Unambiguous.Feedback     0.6674513
## Concentration            0.7283081

```

```

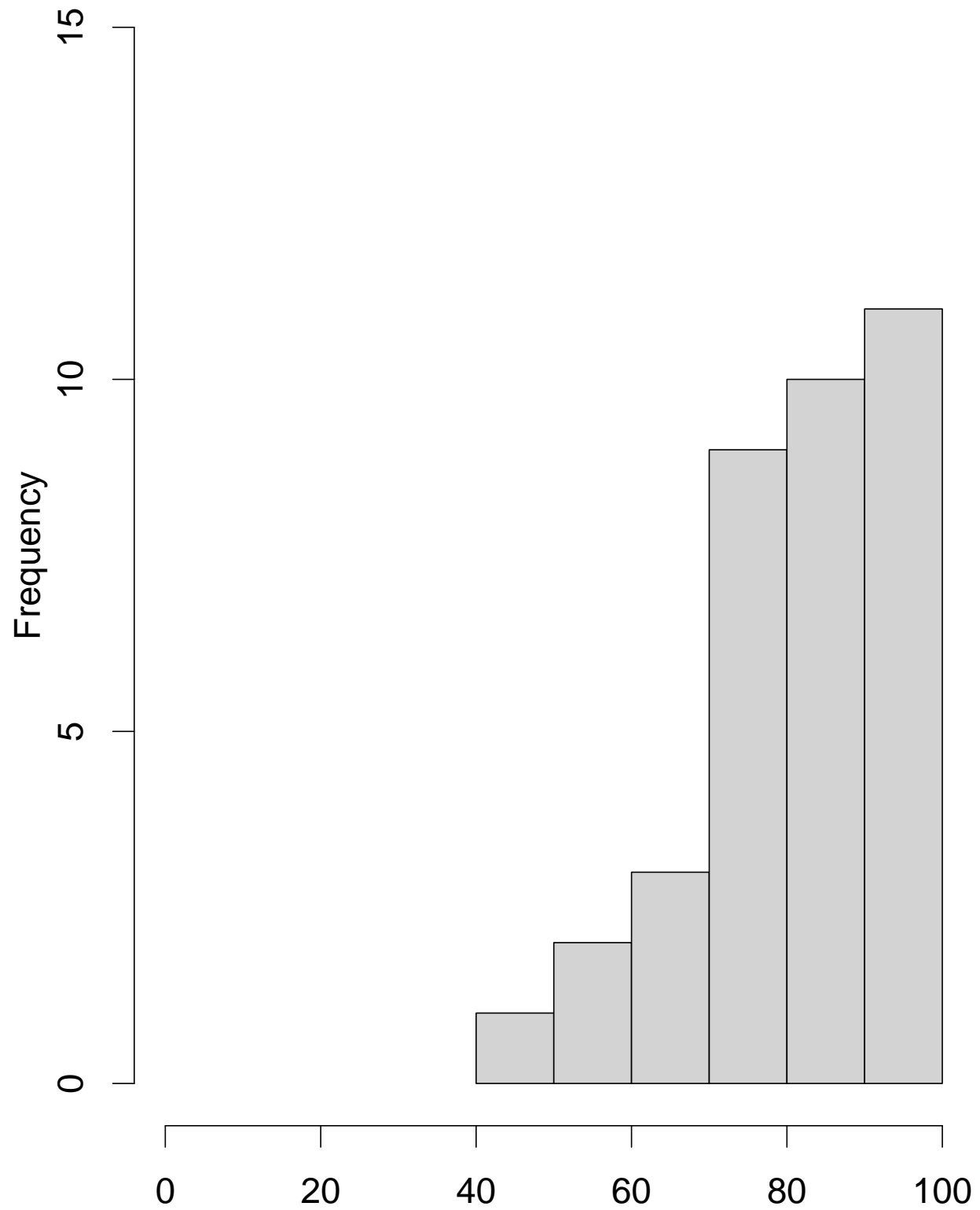
## Sense.of.Control          0.5322380
## Loss.of.Self.Consciousness 0.7406975
## Time.Transformation       0.9135123
## Autotelic.Experience      0.6177319
## Engagement                0.6706903
##
## [[2]]$traits_dfs_pls
## Partial Least Squares Path Modeling (PLS-PM)
## -----
##      NAME          DESCRIPTION
## 1  $outer_model    outer model
## 2  $inner_model    inner model
## 3  $path_coefs     path coefficients matrix
## 4  $scores         latent variable scores
## 5  $crossloadings  cross-loadings
## 6  $inner_summary  summary inner model
## 7  $effects        total effects
## 8  $unidim         unidimensionality
## 9  $gof            goodness-of-fit
## 10 $boot           bootstrap results
## 11 $data           data matrix
## -----
## You can also use the function 'summary'
##
##
## [[3]]
## [[3]]$path_coefs
##
##      Aesthetic    Challenge    Narrative    Objectives
## Challenge.Skill.Balance 0.41325802 -0.05384123 0.21098117 -0.07357450
## Action.Awareness       0.37095565 -0.05935890 0.10226428 -0.17906957
## Clear.Goals            0.56974964 0.13540831 0.05933561 -0.39694915
## Unambiguous.Feedback    0.61526781 0.03721370 0.20572779 -0.30507311
## Concentration          0.28512594 -0.13960546 0.15985802 0.11567578
## Sense.of.Control       0.48443689 -0.06883521 -0.10914555 -0.05600660
## Loss.of.Self.Consciousness -0.04190688 -0.31031100 0.26339337 -0.05016531
## Time.Transformation    -0.43032125 0.12316155 0.04095209 0.10531308
## Autotelic.Experience   -0.17878650 0.65664307 -0.18374447 -0.26337312
## Engagement             -0.03504089 0.13388721 -0.20886329 0.11493854
##
##      Social
## Challenge.Skill.Balance 0.03530392
## Action.Awareness       0.01731574
## Clear.Goals            -0.26105255
## Unambiguous.Feedback    -0.15977671
## Concentration          0.11793371
## Sense.of.Control       0.04224755
## Loss.of.Self.Consciousness 0.26081934
## Time.Transformation    0.11868079
## Autotelic.Experience   0.01678527
## Engagement             0.03703230
##
## [[3]]$p_values
##
##      Aesthetic    Challenge    Narrative    Objectives
## Challenge.Skill.Balance 0.0281286771 0.7552902298 0.2389070 0.67838988

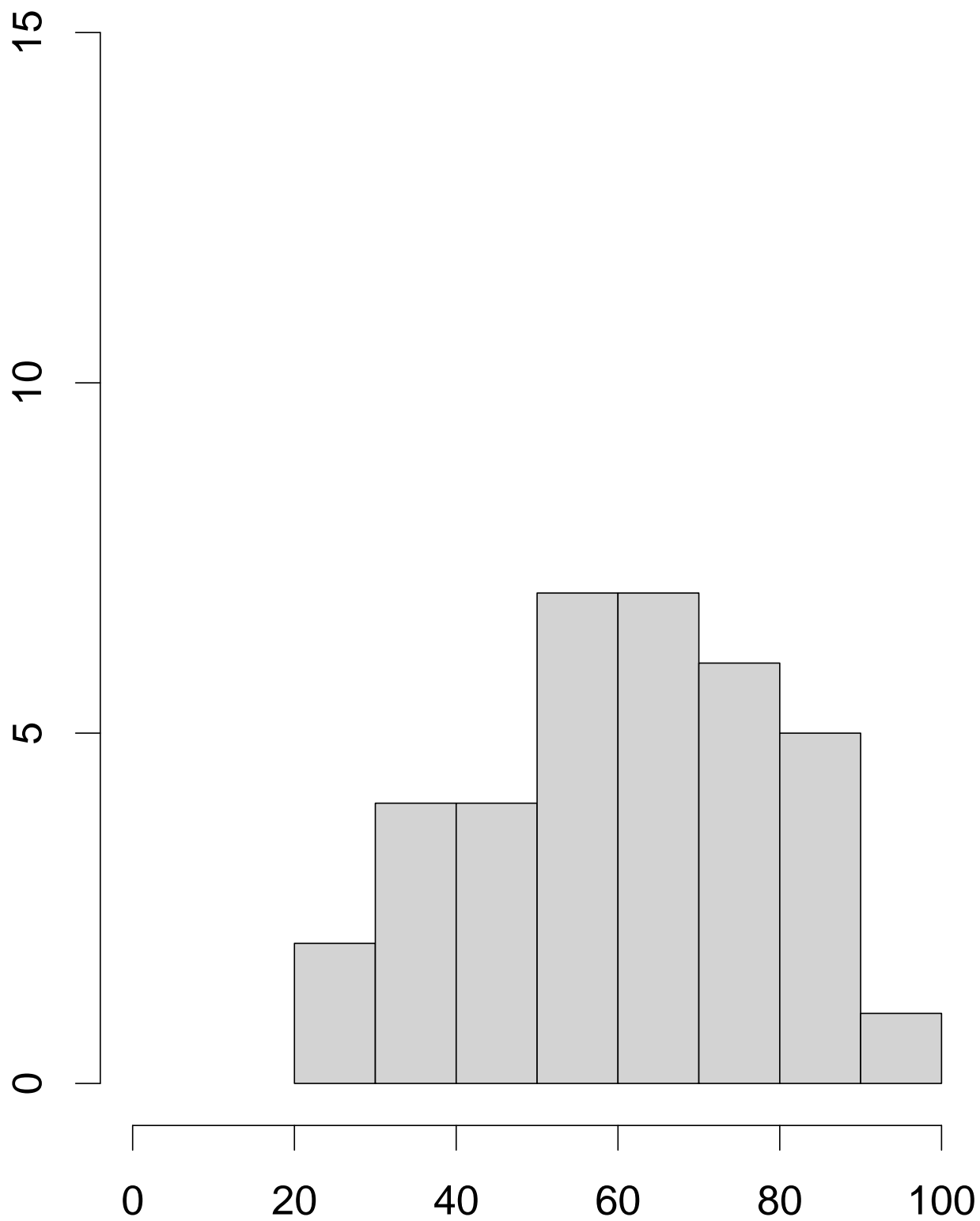
```

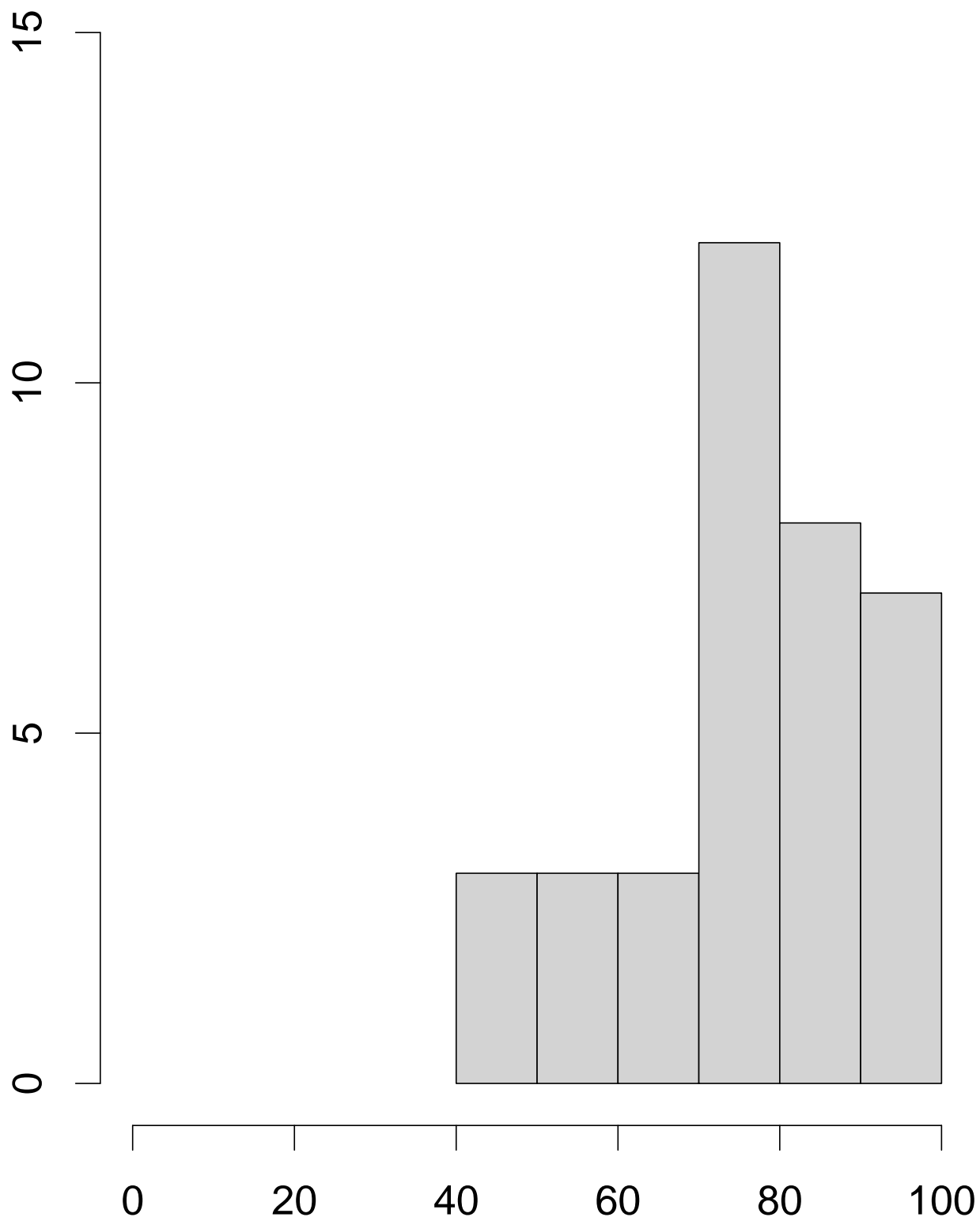
```

## Action.Awareness      0.0597307546 0.7454457372 0.5861622 0.34325744
## Clear.Goals           0.0018295867 0.4018985669 0.7189637 0.02137352
## Unambiguous.Feedback  0.0004423111 0.8044643688 0.1883241 0.05521475
## Concentration         0.1419162402 0.4456718264 0.3951205 0.53744079
## Sense.of.Control      0.0140886539 0.7010159398 0.5535130 0.76076034
## Loss.of.Self.Consciousness 0.8221502166 0.0891168038 0.1563369 0.78389161
## Time.Transformation   0.0338686969 0.5105725566 0.8305584 0.58320593
## Autotelic.Experience  0.2855585457 0.0002330928 0.2633037 0.11294871
## Engagement            0.8648020669 0.4975949642 0.3047051 0.57007847
##                               Social
## Challenge.Skill.Balance 0.8441523
## Action.Awareness      0.9273898
## Clear.Goals           0.1254931
## Unambiguous.Feedback  0.3107483
## Concentration         0.5349534
## Sense.of.Control      0.8206178
## Loss.of.Self.Consciousness 0.1659521
## Time.Transformation   0.5419355
## Autotelic.Experience  0.9188824
## Engagement            0.8563440
##
## [[3]]$traits_dfs_pls
## Partial Least Squares Path Modeling (PLS-PM)
## -----
##      NAME      DESCRIPTION
## 1 $outer_model  outer model
## 2 $inner_model  inner model
## 3 $path_coefs   path coefficients matrix
## 4 $scores       latent variable scores
## 5 $crossloadings cross-loadings
## 6 $inner_summary summary inner model
## 7 $effects      total effects
## 8 $unidim       unidimensionality
## 9 $gof          goodness-of-fit
## 10 $boot        bootstrap results
## 11 $data        data matrix
## -----
## You can also use the function 'summary'

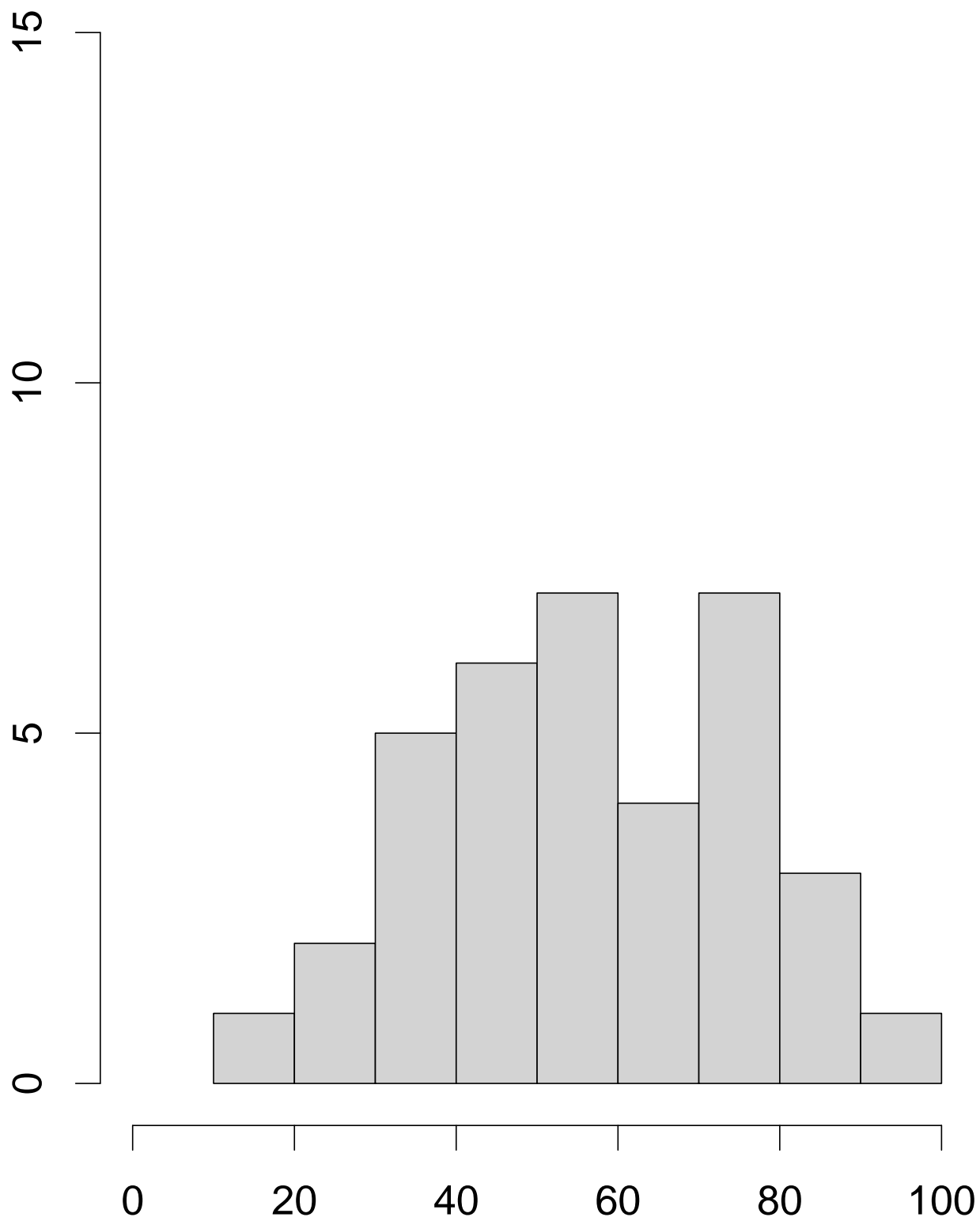
```

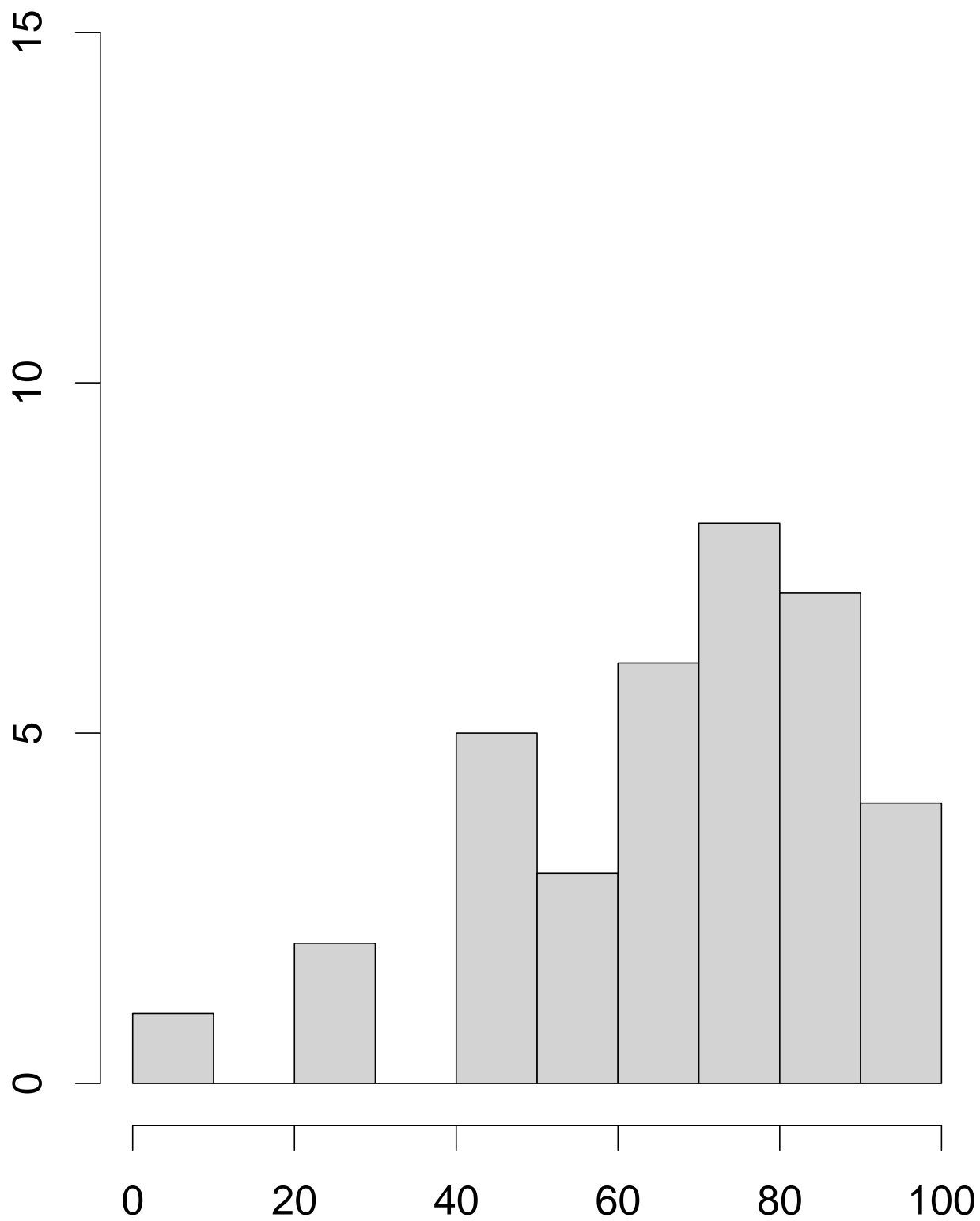


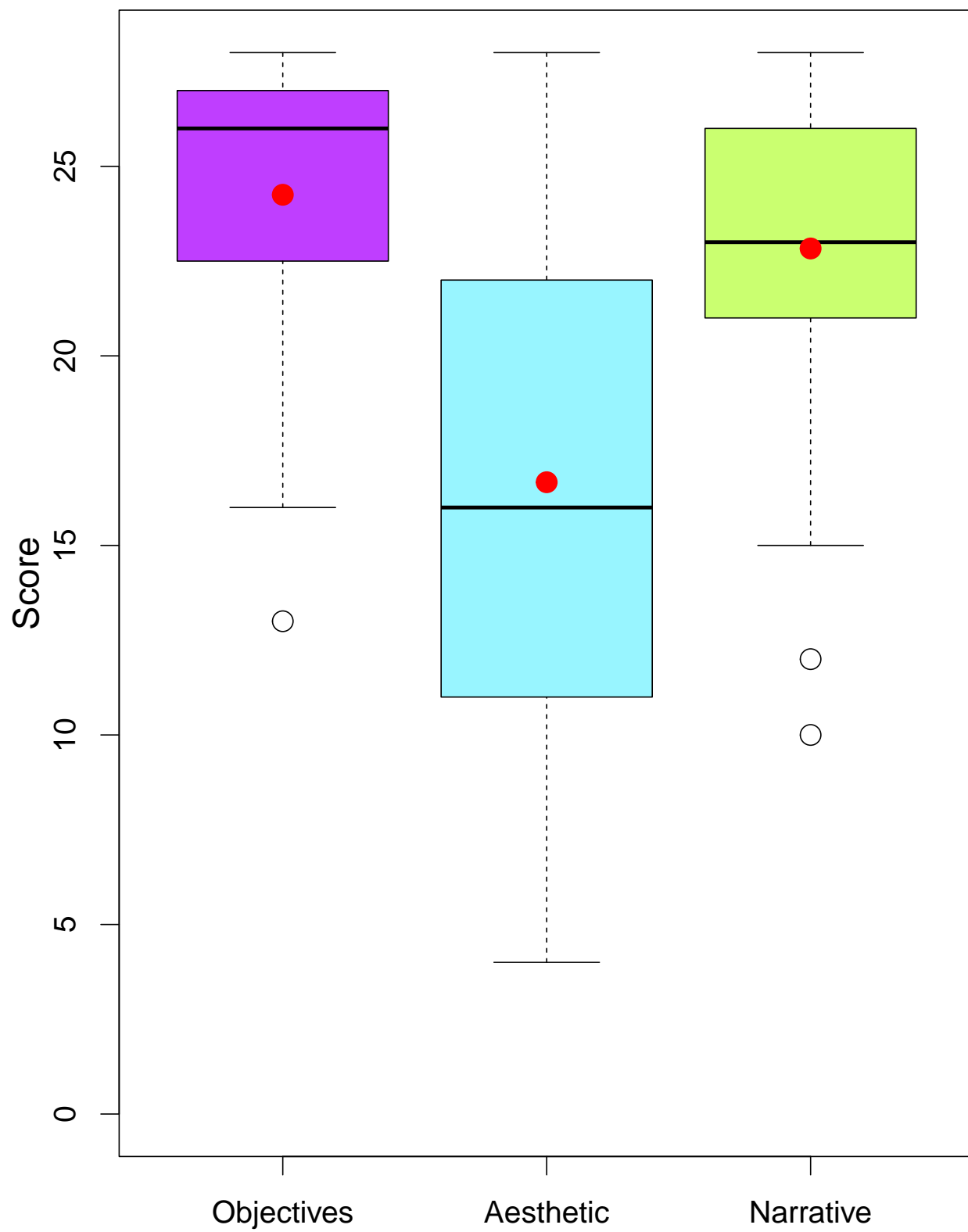




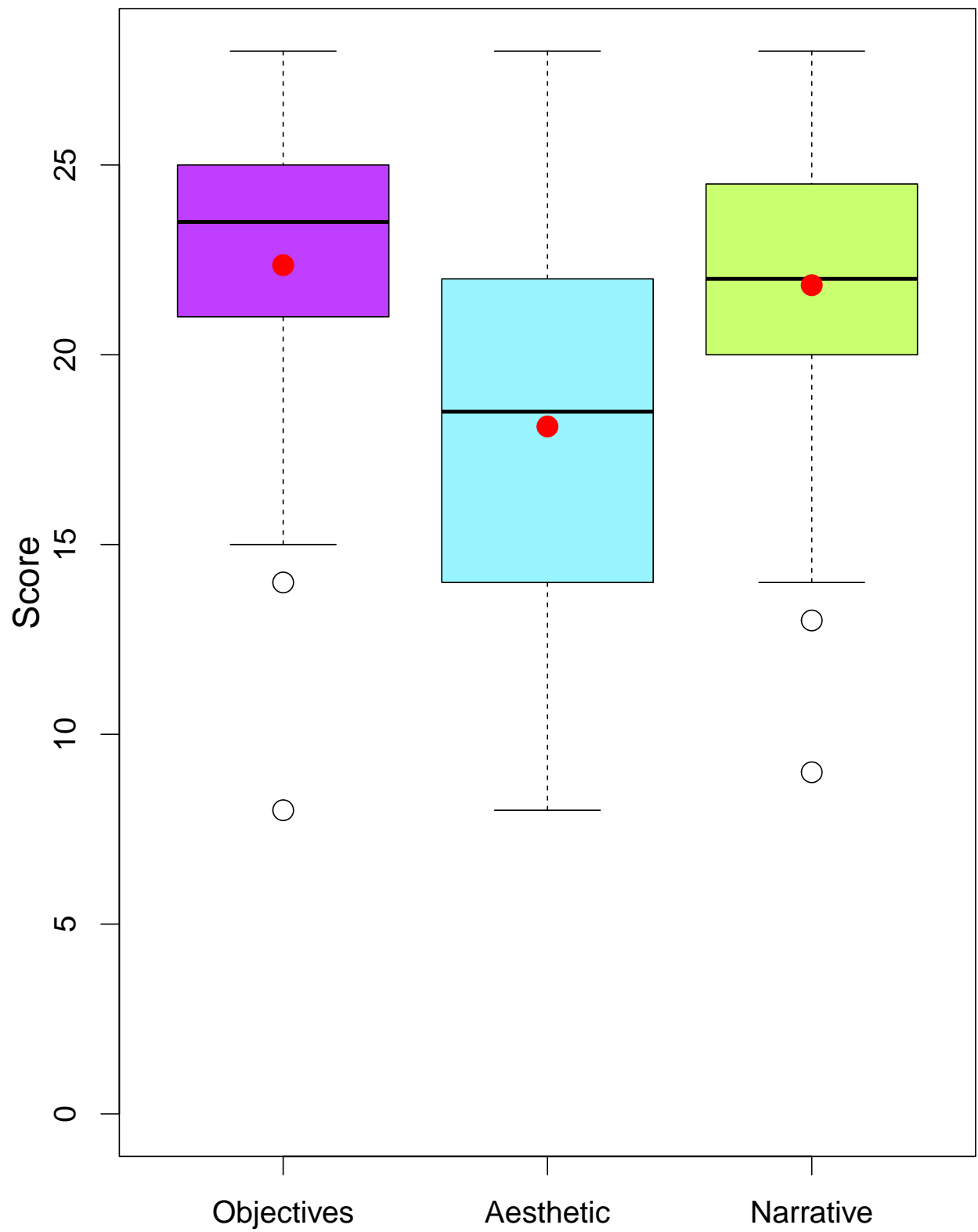




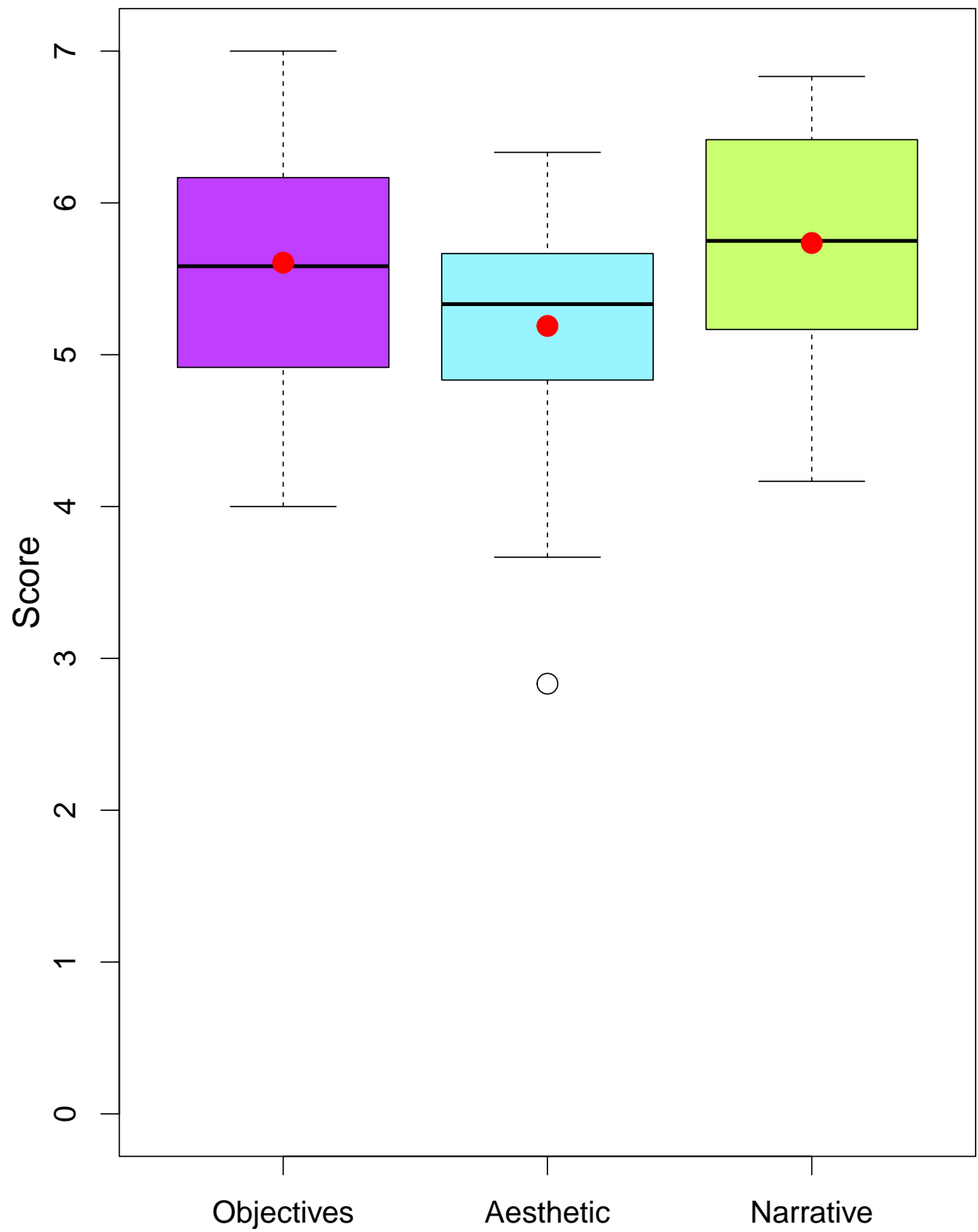




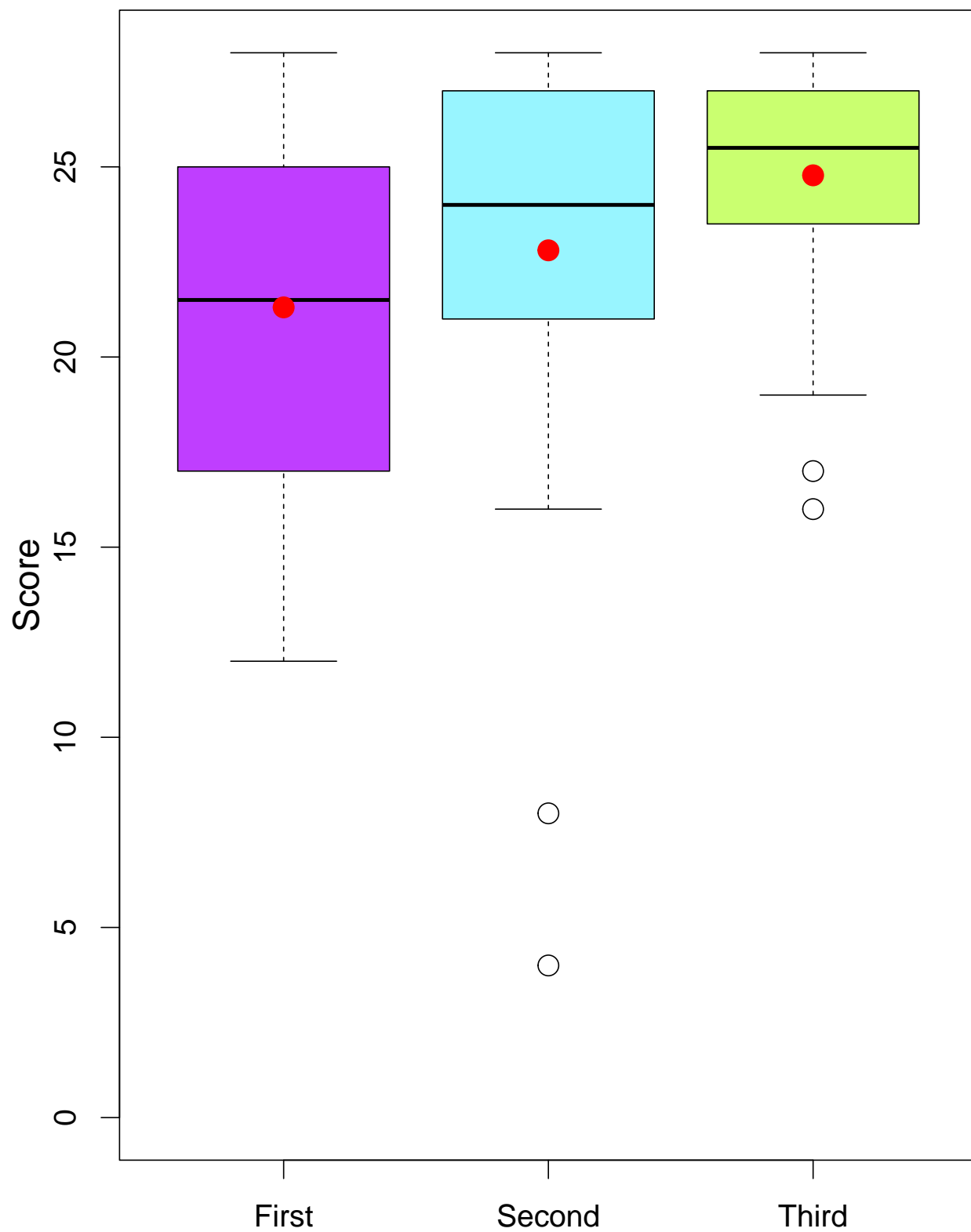
```
## Objectives  Aesthetic  Narrative
##   24.25000   16.66667   22.83333
```



```
## Objectives  Aesthetic  Narrative
##   22.36111   18.11111   21.83333
```



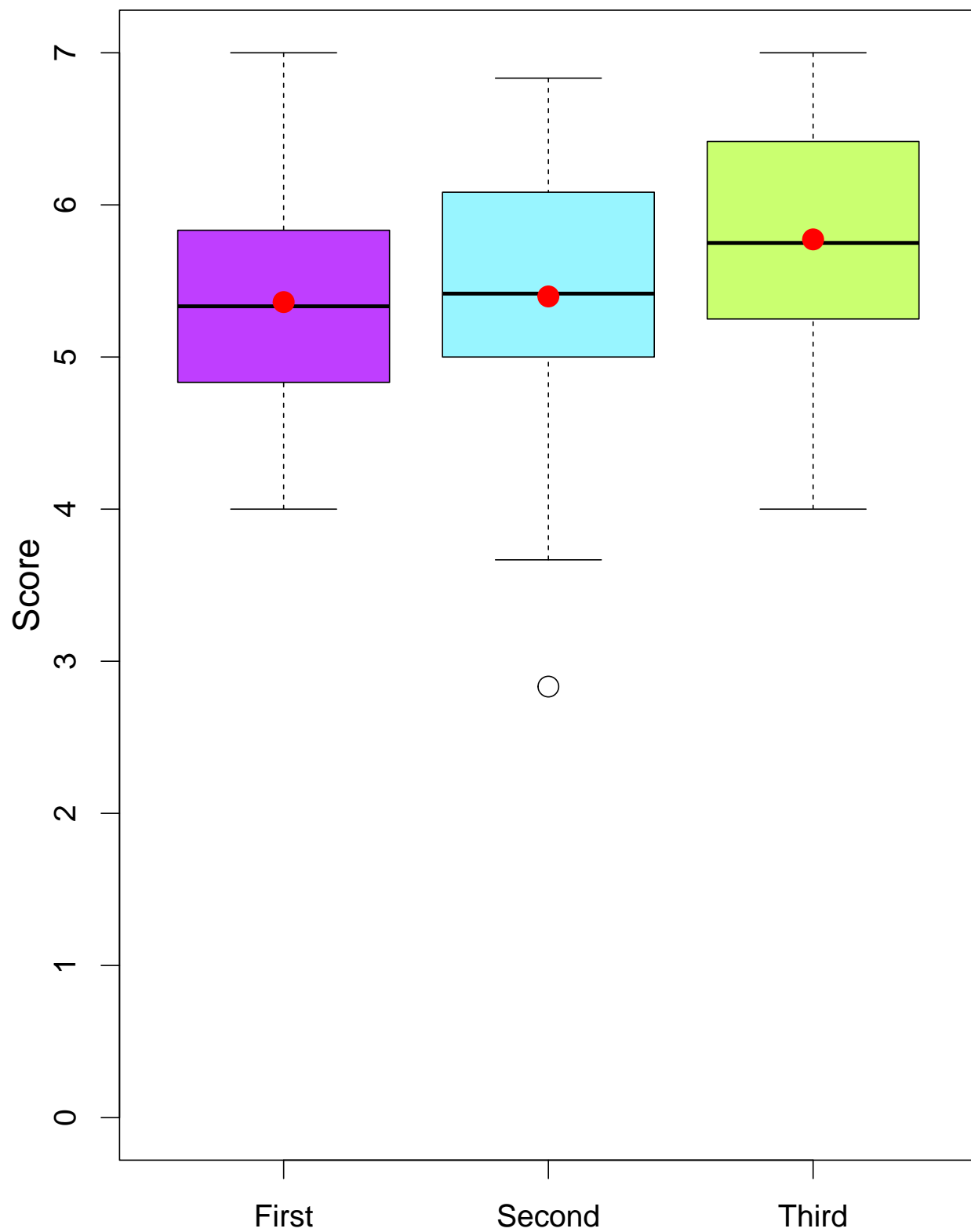
```
## Objectives  Aesthetic  Narrative
##   5.606481   5.189815   5.736111
```



```
##      First  Second   Third
## 21.30556 22.80556 24.77778
```

```
## Tukey multiple comparisons of means
```

```
##      95% family-wise confidence level
##
## Fit: aov(formula = traits_dfs_df[[dimension]] ~ est.ce.votre.premiere..deuxieme.ou.troisieme.experie
##
## $est.ce.votre.premiere..deuxieme.ou.troisieme.experience..
##              diff          lwr          upr          p adj
## Première-Deuxième -1.500000 -4.0471362 1.047136 0.3445786
## Troisième-Deuxième  1.972222 -0.5749139 4.519358 0.1614494
## Troisième-Première  3.472222  0.9250861 6.019358 0.0045169
```



```
##      First   Second   Third
## 5.361111 5.398148 5.773148
```

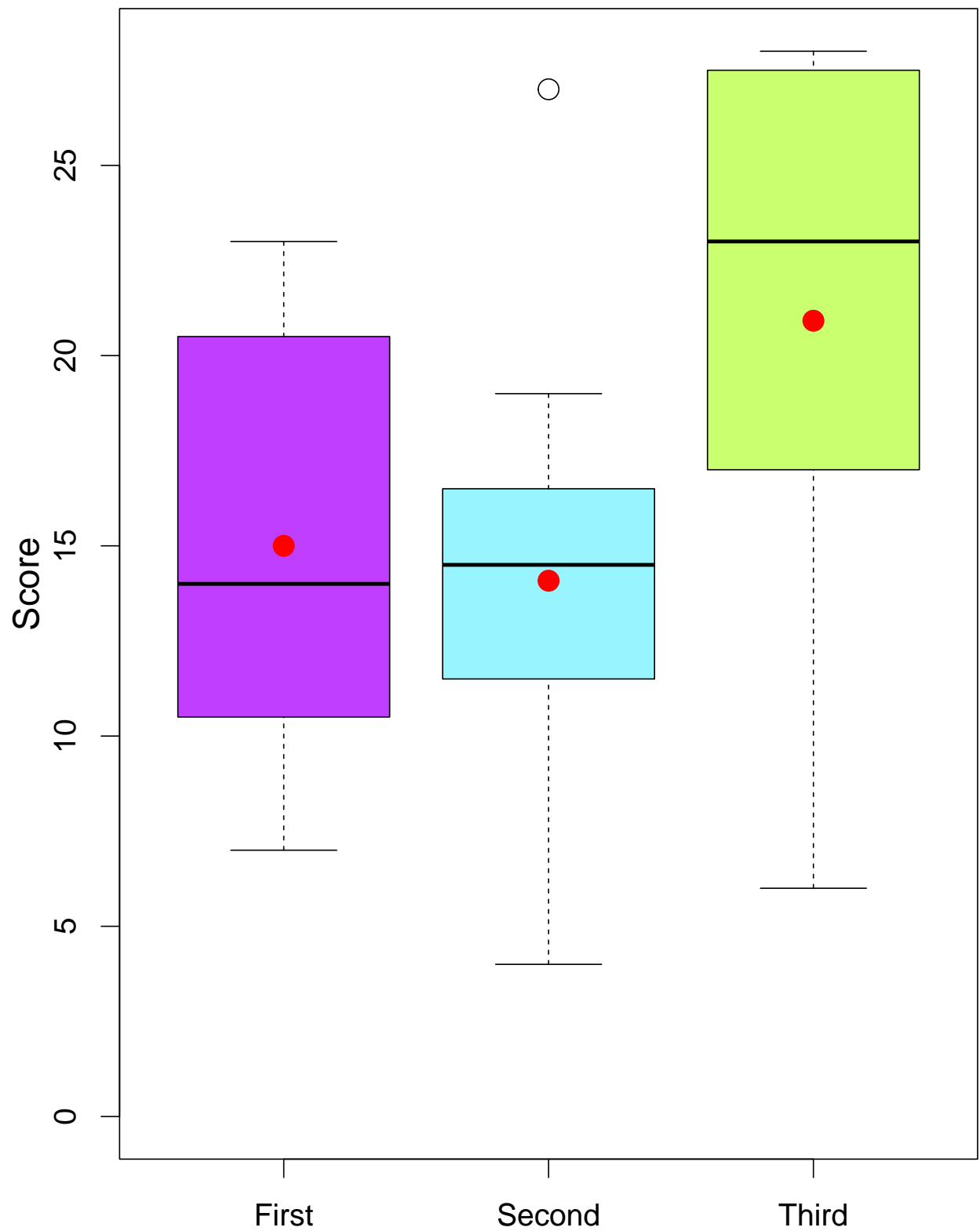
```
##      Tukey multiple comparisons of means
```



```

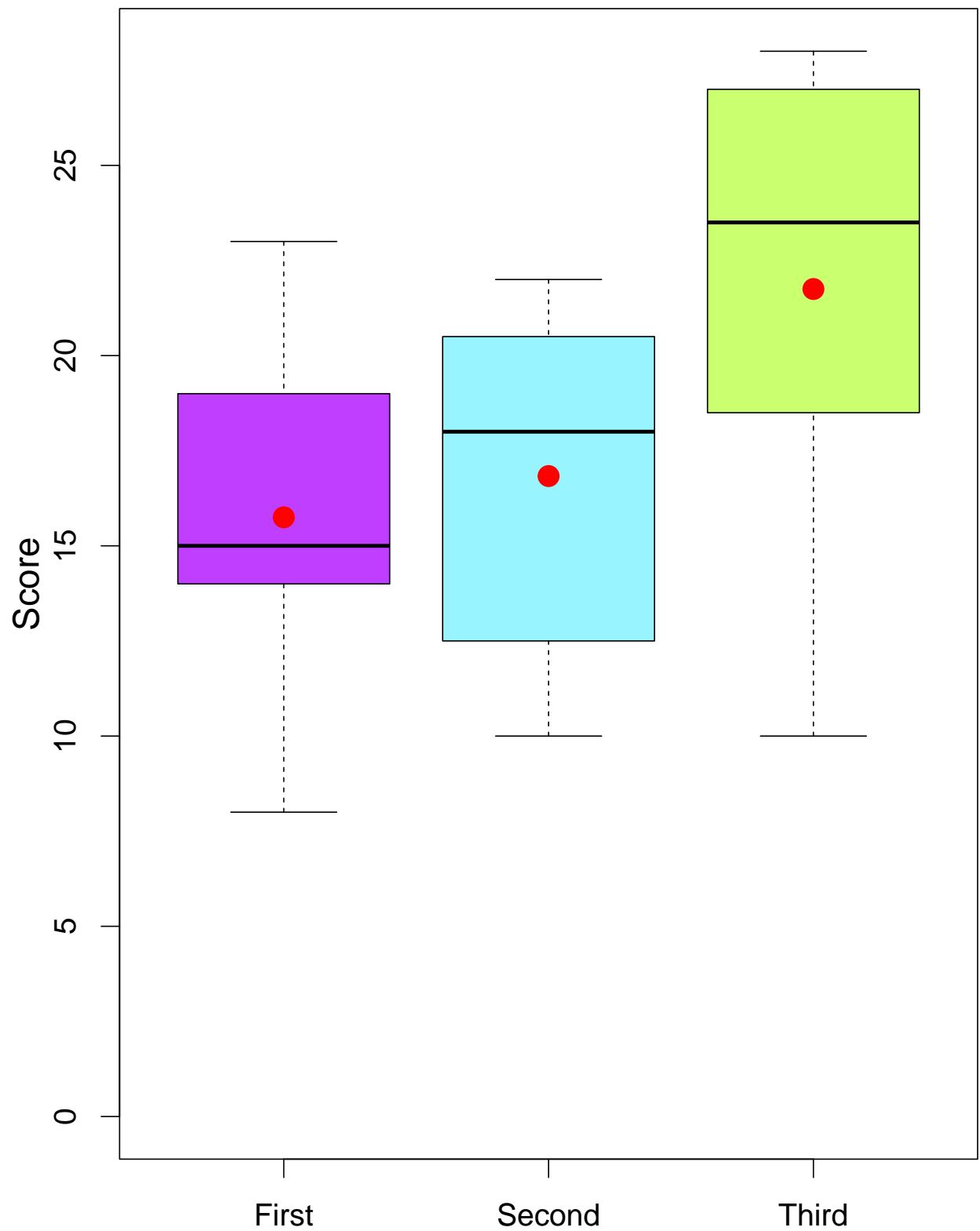
##      95% family-wise confidence level
##
## Fit: aov(formula = traits_dfs_df[[dimension]] ~ est.ce.votre.premiere..deuxieme.ou.troisieme.experie
##
## $est.ce.votre.premiere..deuxieme.ou.troisieme.experience..
##              diff          lwr          upr          p adj
## Première-Deuxième -0.03703704 -0.47960523  0.4055312  0.9784189
## Troisième-Deuxième  0.37500000 -0.06756819  0.8175682  0.1137394
## Troisième-Première  0.41203704 -0.03053115  0.8546052  0.0735611

```



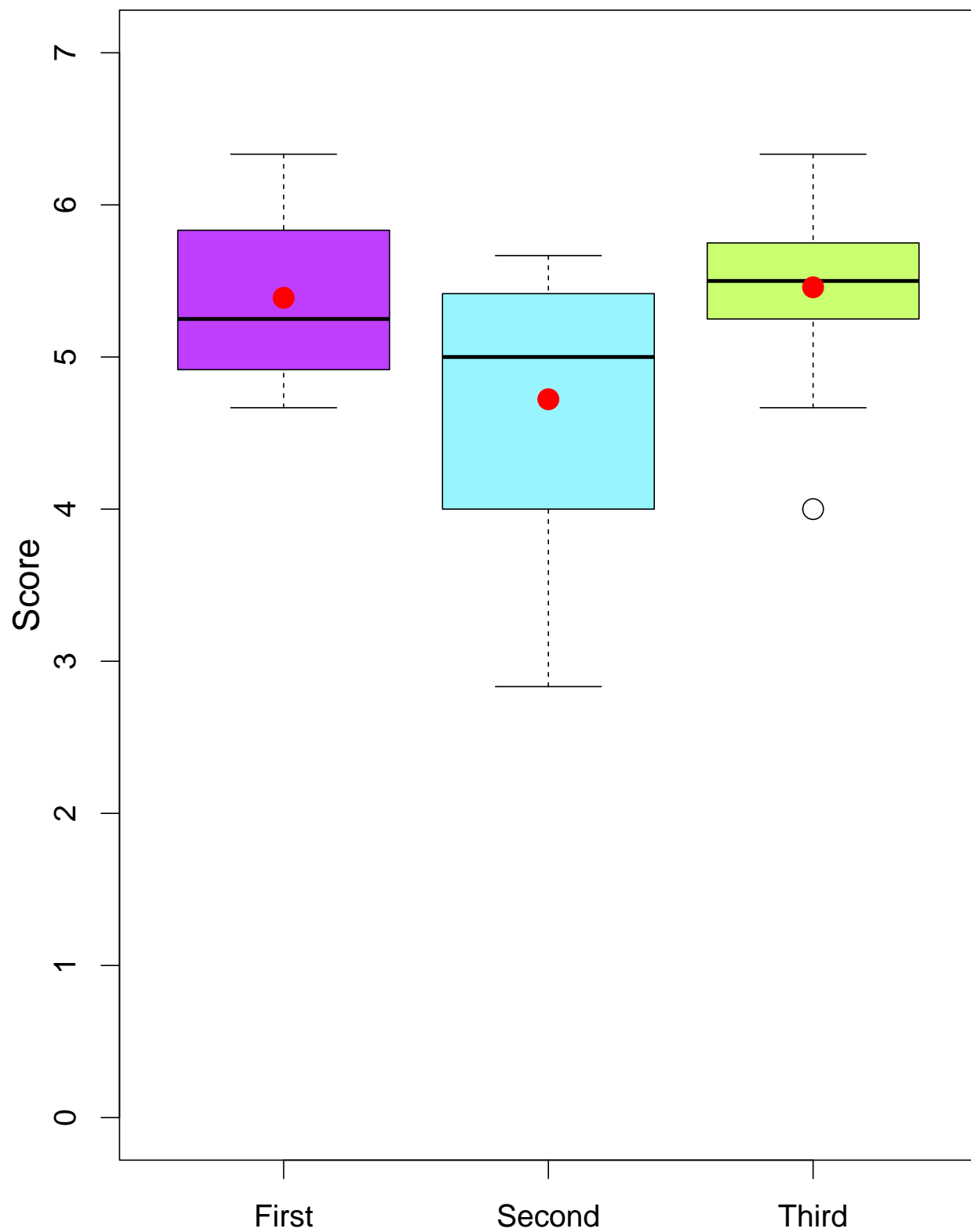
```
##      First   Second   Third  
## 15.00000 14.08333 20.91667
```

```
## NULL
```



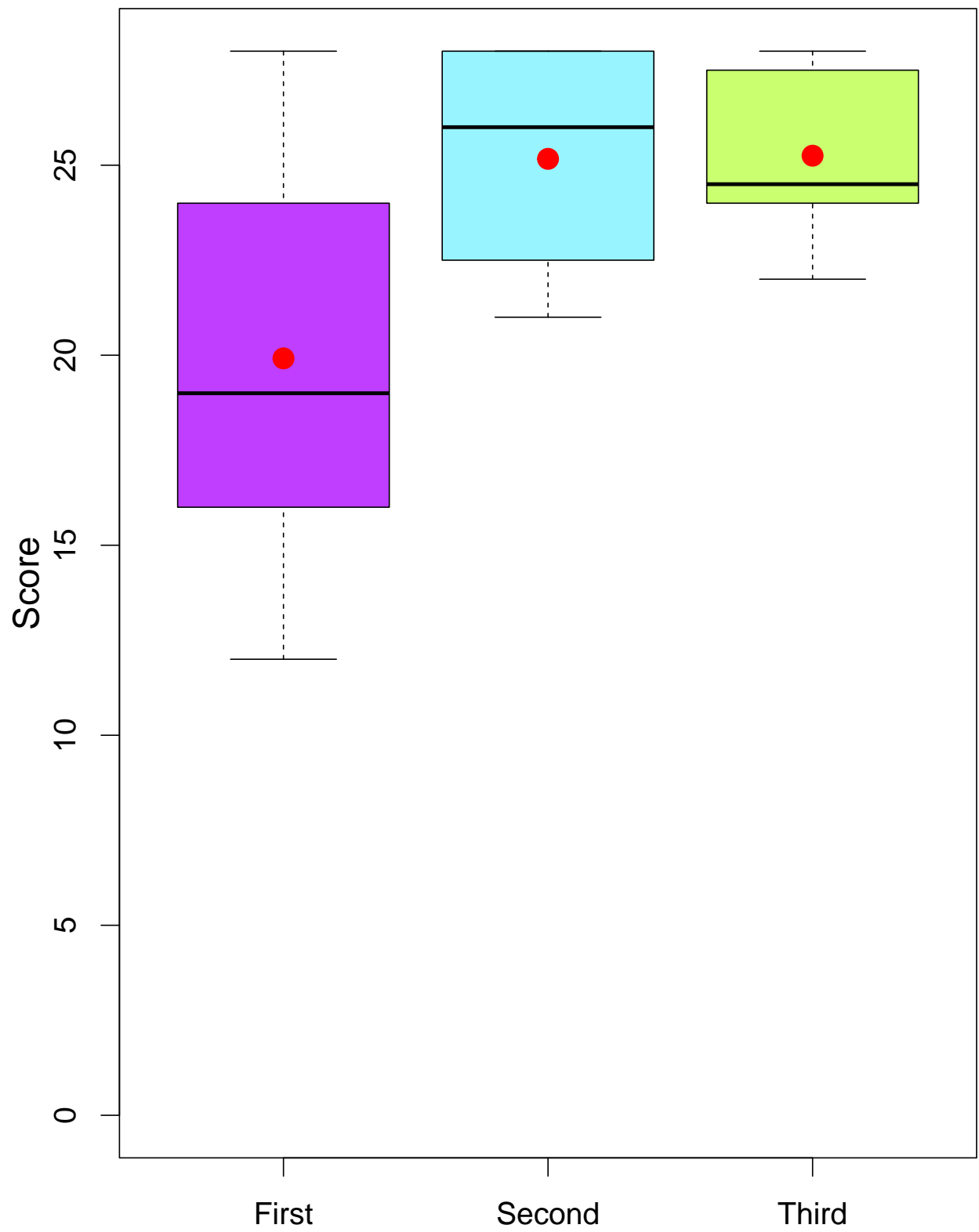
```
##      First   Second   Third
## 15.75000 16.83333 21.75000
```

```
## NULL
```



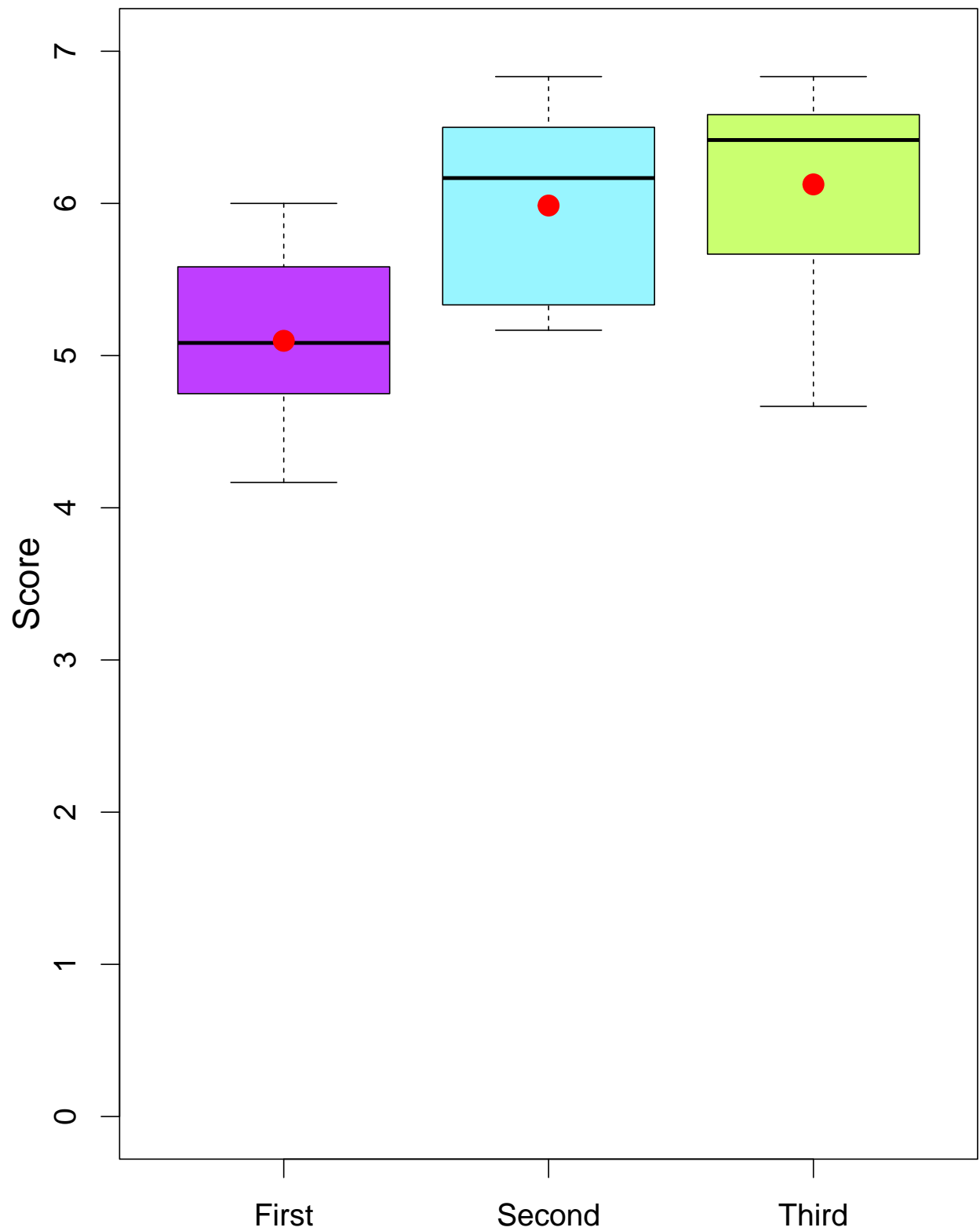
```
##      First   Second   Third  
## 5.388889 4.722222 5.458333
```

```
## NULL
```



```
##      First   Second   Third  
## 19.91667 25.16667 25.25000
```

```
## NULL
```



```
##      First   Second   Third  
## 5.097222 5.986111 6.125000
```

```
## NULL
```