Analysis

Preprocessing

Namespace(demographics=[<_io.TextIOWrapper name='demographic_data_fixed.csv' mode='r' encoding='UTF-8'>], distance=False, file=[<_io.TextIOWrapper name='experiment_results.csv' mode='r' encoding='UTF-8'>], final_q=[<_io.TextIOWrapper name='final_questionnaire_results.csv' mode='r' encoding='UTF-8'>], norm_test='None', task_q=[<_io.TextIOWrapper name='task_questionnaire_results.csv' mode='r' encoding='UTF-8'>])

- experiment_results.csv
- task_questionnaire_results.csv
- final_questionnaire_results.csv
- demographic_data_fixed.csv

Dropping Task ID 0 (Training)

Asserting Absolute Distance Values!

Dataset Validation:
{'pid': True}

Adding success column based on
`opt_interactions == interactions`
in order to measure effectiveness.

No normality test, *Forcing t-test*!

Demographics

age

count | 50.0 |
mean | 24.1 |
std | 2.90144228737 |
min | 20.0 |
25% | 22.0 |
50% | 24.0 |
75% | 25.0 |
max | 35.0 |

sex

('f', 29)
('m', 21)

job

('Agrarwissenschaften', 5)
('Agribusiness', 1)
('Betriebswirtschaftslehre', 1)
('Biochemie', 1)
('Biologie', 1)
('Ernährungs- und Verbraucherökonomie', 2)
('Finanzmathematik', 2)
('Informatik / Nachhilfelehrer', 1)
('Mathemathik / Chemie', 1)
('Mathemathik / Deutsch / Psychologie', 1)
('Mathemathik / Geologie', 1)
('Mathemathik / Geschichte', 1)
('Mathemathik / Philosophie', 1)
('Mathemathik / Physik', 1)
('Mathemathik / Sport', 1)
('Mathematik', 4)
('Mathematik / Informatik', 1)
('Mathematik / Spanisch', 1)
('Medizin', 1)
('Musikwissenschaft / Philosophie', 1)
('Physik', 1)
('Politikwissenschaft / Ur- und Frühgeschichte', 1)
('Psychologie', 4)
('Rechtswissenschaften', 1)
('Soziologie / Pädagogik', 1)
('Volkswirtschaftslehre', 3)
('Wirtschaftsinformatik', 6)
('Wirtschaftsingenieur', 2)
('Wirtschaftswissenschaften Profil: Handelslehrer', 1)

smartphone

('None', 1)
('android', 37)
('nodroid', 12)

comments

('Ich zweifle die Aussagekraft der Studie an, da die Navigation nur aus „Wischen nach links" und „Wischen nach rechts" besteht.', 1)
('Menü-Steuerung: nur 5/7 Steine da: Menü zum Ausklappen. besser: dauerhaft ausgeklappt - >1 Klick statt 2', 1)
('Samsung', 1)

('man könnte die Bedienung noch vereinfachen, indem man durch wischen von Tür zu Tür kann', 1)
('schön kurz :)', 1)

Efficiency by Tasks

Descriptions [time_ms]

Global Descriptions [time_ms]

burger

count | 550.0 |
mean | 4638.11818182 |
std | 2276.28326918 |
min | 2379.0 |
25% | 3429.75 |
50% | 4086.5 |
75% | 5083.5 |
max | 35643.0 |

swipe

count | 700.0 |
mean | 5105.28428571 |
std | 2660.31481955 |
min | 1453.0 |
25% | 3496.25 |
50% | 4796.0 |
75% | 6205.0 |
max | 36116.0 |

Descriptions per tid [time_ms]

('burger', 1)

count | 110.0 |
mean | 3882.02727273 |
std | 1273.13599999 |
min | 2379.0 |
25% | 3038.0 |
50% | 3454.5 |
75% | 4136.5 |
max | 9626.0 |

('burger', 2)

count | 110.0 |
mean | 4855.64545455 |
std | 3550.99032468 |
min | 2587.0 |
25% | 3419.0 |
50% | 4059.0 |
75% | 5109.25 |
max | 35643.0 |

('burger', 3)

count | 110.0 |
mean | 4923.24545455 |
std | 2443.8345722 |
min | 2825.0 |
25% | 3495.0 |
50% | 4068.0 |
75% | 5331.5 |
max | 16458.0 |

('burger', 4)

count | 110.0 |
mean | 4455.94545455 |
std | 1740.15099965 |
min | 2598.0 |
25% | 3363.5 |
50% | 3995.0 |
75% | 4903.25 |
max | 12386.0 |

('burger', 5)

count | 110.0 |
mean | 5073.72727273 |
std | 1391.01089839 |
min | 3211.0 |
25% | 4127.0 |
50% | 4825.0 |
75% | 5579.25 |
max | 10924.0 |

('swipe', 1)

count | 140.0 |
mean | 2770.21428571 |
std | 1949.56224485 |
min | 1453.0 |
25% | 1933.0 |
50% | 2410.5 |
75% | 3031.5 |
max | 21906.0 |

('swipe', 2)

count | 140.0 |
mean | 4204.86428571 |
std | 2912.4724452 |
min | 2521.0 |
25% | 3322.25 |
50% | 3758.5 |
75% | 4416.25 |
max | 36116.0 |

('swipe', 3)

count | 140.0 |
mean | 5175.67857143 |
std | 1434.32085184 |
min | 3146.0 |
25% | 4098.75 |
50% | 4834.0 |
75% | 5789.25 |
max | 11129.0 |

('swipe', 4)

count | 140.0 |
mean | 6123.01428571 |
std | 1877.88245579 |
min | 3622.0 |
25% | 5070.0 |
50% | 5691.5 |
75% | 6742.0 |
max | 20070.0 |

('swipe', 5)

count | 140.0 |
mean | 7252.65 |

std | 2392.08935471 |
min | 4282.0 |
25% | 5917.75 |
50% | 6747.5 |
75% | 7843.5 |
max | 24822.0 |

Cross-compare Tests per tid [time_ms]

('burger', 1) vs ('burger', 2)

Ttest_indResult(statistic=-2.7069257840177166, pvalue=0.0076584106293651174)

('burger', 1) vs ('burger', 3)

Ttest_indResult(statistic=-3.9630138423637753, pvalue=0.00011019834573310358)

('burger', 1) vs ('burger', 4)

Ttest_indResult(statistic=-2.7916856663246765, pvalue=0.0057525652209190247)

('burger', 1) vs ('burger', 5)

Ttest_indResult(statistic=-6.6281974576990477, pvalue=2.6654505205089786e-10)

('burger', 1) vs ('swipe', 1)

Ttest_indResult(statistic=5.4326153841753113, pvalue=1.3586526333931942e-07)

('burger', 1) vs ('swipe', 2)

Ttest_indResult(statistic=-1.1762922471638779, pvalue=0.24087795976855594)

('burger', 1) vs ('swipe', 3)

Ttest_indResult(statistic=-7.5408734262828094, pvalue=9.1456060724920978e-13)

('burger', 1) vs ('swipe', 4)

Ttest_indResult(statistic=-11.215580212273252, pvalue=8.4091646308958142e-24)

('burger', 1) vs ('swipe', 5)

Ttest_indResult(statistic=-14.29368458997773, pvalue=3.0267427720130829e-33)

('burger', 2) vs ('burger', 3)

Ttest_indResult(statistic=-0.16447445278862544, pvalue=0.86952948719325696)

('burger', 2) vs ('burger', 4)

Ttest_indResult(statistic=1.0600946394028834, pvalue=0.29071432820462006)

('burger', 2) vs ('burger', 5)

Ttest_indResult(statistic=-0.59974584216808413, pvalue=0.54963357840520244)

('burger', 2) vs ('swipe', 1)

Ttest_indResult(statistic=5.538439361373503, pvalue=1.2306063779073432e-07)

('burger', 2) vs ('swipe', 2)

Ttest_indResult(statistic=1.5546815529967002, pvalue=0.12153553523730215)

('burger', 2) vs ('swipe', 3)

Ttest_indResult(statistic=-0.88991887096624867, pvalue=0.37506981652796878)

('burger', 2) vs ('swipe', 4)

Ttest_indResult(statistic=-3.3893532956398862, pvalue=0.00088695190095300206)

('burger', 2) vs ('swipe', 5)

Ttest_indResult(statistic=-6.0785193664476225, pvalue=6.928771693524431e-09)

('burger', 3) vs ('burger', 4)

Ttest_indResult(statistic=1.633653476860327, pvalue=0.10392934344192963)

('burger', 3) vs ('burger', 5)

Ttest_indResult(statistic=-0.56126498193436625, pvalue=0.57534354989927383)

('burger', 3) vs ('swipe', 1)

Ttest_indResult(statistic=7.5444054072566527, pvalue=1.4527959234468714e-12)

('burger', 3) vs ('swipe', 2)

Ttest_indResult(statistic=2.1194676350640345, pvalue=0.035049242537354371)

('burger', 3) vs ('swipe', 3)

Ttest_indResult(statistic=-0.96107503820804641, pvalue=0.33790867474880881)

('burger', 3) vs ('swipe', 4)

Ttest_indResult(statistic=-4.2556029720583979, pvalue=3.2035131582151195e-05)

('burger', 3) vs ('swipe', 5)

Ttest_indResult(statistic=-7.550993296996201, pvalue=9.8652818305802416e-13)

('burger', 4) vs ('burger', 5)

Ttest_indResult(statistic=-2.908423978077963, pvalue=0.0040271469815081331)

('burger', 4) vs ('swipe', 1)

Ttest_indResult(statistic=7.209186111149064, pvalue=7.0263378717603719e-12)

('burger', 4) vs ('swipe', 2)

Ttest_indResult(statistic=0.84582913729034226, pvalue=0.3985168455092658)

('burger', 4) vs ('swipe', 3)

Ttest_indResult(statistic=-3.5026414730410522, pvalue=0.00056297399386590681)

('burger', 4) vs ('swipe', 4)

Ttest_indResult(statistic=-7.2606750152898689, pvalue=5.2712588147746732e-12)

('burger', 4) vs ('swipe', 5)

Ttest_indResult(statistic=-10.693428350595326, pvalue=3.5536454454504528e-22)

('burger', 5) vs ('swipe', 1)

Ttest_indResult(statistic=10.890538484235995, pvalue=8.5016546211500906e-23)

('burger', 5) vs ('swipe', 2)

Ttest_indResult(statistic=3.1074578497467975, pvalue=0.0021494163532751534)

('burger', 5) vs ('swipe', 3)

Ttest_indResult(statistic=-0.56740454887630598, pvalue=0.57097571413562109)

('burger', 5) vs ('swipe', 4)

Ttest_indResult(statistic=-5.0731662549008609, pvalue=7.6882650857723662e-07)

('burger', 5) vs ('swipe', 5)

Ttest_indResult(statistic=-9.0116498280847814, pvalue=8.0218560476693546e-17)

('swipe', 1) vs ('swipe', 2)

Ttest_indResult(statistic=-4.8434258013998477, pvalue=2.274961213270276e-06)

('swipe', 1) vs ('swipe', 3)

Ttest_indResult(statistic=-11.759414000225329, pvalue=8.3981981627819097e-26)

('swipe', 1) vs ('swipe', 4)

Ttest_indResult(statistic=-14.655532120635145, pvalue=2.0532387279374739e-36)

('swipe', 1) vs ('swipe', 5)

Ttest_indResult(statistic=-17.186752811829475, pvalue=4.2694464640700814e-45)

('swipe', 2) vs ('swipe', 3)

Ttest_indResult(statistic=-3.5382178337888495, pvalue=0.00049943120019875324)

('swipe', 2) vs ('swipe', 4)

Ttest_indResult(statistic=-6.5492908547573476, pvalue=3.5428937762053603e-10)

('swipe', 2) vs ('swipe', 5)

Ttest_indResult(statistic=-9.5682857766159515, pvalue=7.5669739907302645e-19)

('swipe', 3) vs ('swipe', 4)

Ttest_indResult(statistic=-4.7435792201219673, pvalue=3.4662492531819365e-06)

('swipe', 3) vs ('swipe', 5)

Ttest_indResult(statistic=-8.8109429254330092, pvalue=3.2416911874714276e-16)

('swipe', 4) vs ('swipe', 5)

Ttest_indResult(statistic=-4.3950718940401625, pvalue=1.6076088389444222e-05)

Global Burger vs Swipe per tid Tests [time_ms]

burger vs swipe 1

Ttest_indResult(statistic=9.7677785244985476, pvalue=3.048661963250753e-19)

burger vs swipe 2

Ttest_indResult(statistic=1.6374276606675802, pvalue=0.10324597758459234)

burger vs swipe 3

Ttest_indResult(statistic=-3.4616051586436036, pvalue=0.00060564874812197894)

burger vs swipe 4

Ttest_indResult(statistic=-7.981729679231651, pvalue=5.0201723649504874e-14)

burger vs swipe 5

Ttest_indResult(statistic=-11.658440737398982, pvalue=1.7212956322485464e-24)

Global Burger vs Global Swipe Test [time_ms]

burger vs swipe

Ttest_indResult(statistic=-3.3427694548324953, pvalue=0.00085423271669792108)

Effectiveness by Tasks

Descriptions [success]

Global Descriptions [success]

burger

count | 550 |
unique | 2 |
top | True |
freq | 538 |

swipe

count | 700 |
unique | 2 |
top | True |
freq | 654 |

Descriptions per tid [success]

('burger', 1)

count | 110 |
unique | 2 |
top | True |
freq | 109 |

('burger', 2)

count | 110 |
unique | 2 |
top | True |
freq | 106 |

('burger', 3)

count | 110 |
unique | 2 |
top | True |
freq | 106 |

('burger', 4)

count | 110 |
unique | 2 |
top | True |
freq | 108 |

('burger', 5)

count | 110 |
unique | 2 |
top | True |
freq | 109 |

('swipe', 1)

count | 140 |
unique | 2 |
top | True |
freq | 137 |

('swipe', 2)

count | 140 |
unique | 2 |
top | True |
freq | 131 |

('swipe', 3)

count | 140 |
unique | 2 |

top | True |
freq | 125 |

('swipe', 4)

count | 140 |
unique | 2 |
top | True |
freq | 132 |

('swipe', 5)

count | 140 |
unique | 2 |
top | True |
freq | 129 |

Cross-compare Tests per tid [success]

('burger', 1) vs ('burger', 2)

Ttest_indResult(statistic=1.3566596213974287, pvalue=0.17678194158108454)

('burger', 1) vs ('burger', 3)

Ttest_indResult(statistic=1.3566596213974287, pvalue=0.17678194158108454)

('burger', 1) vs ('burger', 4)

Ttest_indResult(statistic=0.57912400691442567, pvalue=0.56316817234044769)

('burger', 1) vs ('burger', 5)

Ttest_indResult(statistic=0.0, pvalue=1.0)

('burger', 1) vs ('swipe', 1)

Ttest_indResult(statistic=0.80739517975463093, pvalue=0.42023551788635605)

('burger', 1) vs ('swipe', 2)

Ttest_indResult(statistic=2.4312286347458874, pvalue=0.015983788401592251)

('burger', 1) vs ('swipe', 3)

Ttest_indResult(statistic=3.5315534086960496, pvalue=0.00053094839433830772)

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('burger', 1) vs ('swipe', 4)

Ttest_indResult(statistic=2.215874978949087, pvalue=0.027866499438757488)

('burger', 1) vs ('swipe', 5)

Ttest_indResult(statistic=2.8283089411876623, pvalue=0.0052076221586708762)

('burger', 2) vs ('burger', 3)

Ttest_indResult(statistic=0.0, pvalue=1.0)

('burger', 2) vs ('burger', 4)

Ttest_indResult(statistic=-0.82537870096095911, pvalue=0.41015411439664728)

('burger', 2) vs ('burger', 5)

Ttest_indResult(statistic=-1.3566596213974287, pvalue=0.17678194158108454)

('burger', 2) vs ('swipe', 1)

Ttest_indResult(statistic=-0.68719540412208679, pvalue=0.49275308971484577)

('burger', 2) vs ('swipe', 2)

Ttest_indResult(statistic=1.0167030982209715, pvalue=0.31028623539588174)

('burger', 2) vs ('swipe', 3)

Ttest_indResult(statistic=2.2274529233560192, pvalue=0.02686863183496167)

('burger', 2) vs ('swipe', 4)

Ttest_indResult(statistic=0.78033142539281197, pvalue=0.43594053940311395)

('burger', 2) vs ('swipe', 5)

Ttest_indResult(statistic=1.4542927864169122, pvalue=0.14714672347976621)

('burger', 3) vs ('burger', 4)

Ttest_indResult(statistic=-0.82537870096095911, pvalue=0.41015411439664728)

('burger', 3) vs ('burger', 5)

Ttest_indResult(statistic=-1.3566596213974287, pvalue=0.17678194158108454)

('burger', 3) vs ('swipe', 1)

Ttest_indResult(statistic=-0.68719540412208691, pvalue=0.49275308971484599)

('burger', 3) vs ('swipe', 2)

Ttest_indResult(statistic=1.0167030982209715, pvalue=0.31028623539588174)

('burger', 3) vs ('swipe', 3)

Ttest_indResult(statistic=2.2274529233560192, pvalue=0.026868631834961684)

('burger', 3) vs ('swipe', 4)

Ttest_indResult(statistic=0.78033142539281197, pvalue=0.43594053940311339)

('burger', 3) vs ('swipe', 5)

Ttest_indResult(statistic=1.4542927864169122, pvalue=0.14714672347976621)

('burger', 4) vs ('burger', 5)

Ttest_indResult(statistic=-0.57912400691442567, pvalue=0.56316817234044769)

('burger', 4) vs ('swipe', 1)

Ttest_indResult(statistic=0.1830408456352626, pvalue=0.85491950188735677)

('burger', 4) vs ('swipe', 2)

Ttest_indResult(statistic=1.8876521394554662, pvalue=0.060369367164060092)

('burger', 4) vs ('swipe', 3)

Ttest_indResult(statistic=3.0477589618316396, pvalue=0.0026190549770261249)

('burger', 4) vs ('swipe', 4)

Ttest_indResult(statistic=1.6592223276634299, pvalue=0.098439184876363106)

('burger', 4) vs ('swipe', 5)

Ttest_indResult(statistic=2.3080061990353404, pvalue=0.021957393227192475)

('burger', 5) vs ('swipe', 1)

Ttest_indResult(statistic=0.80739517975463093, pvalue=0.42023551788635605)

('burger', 5) vs ('swipe', 2)

Ttest_indResult(statistic=2.4312286347458874, pvalue=0.015983788401592251)

('burger', 5) vs ('swipe', 3)

Ttest_indResult(statistic=3.5315534086960496, pvalue=0.00053094839433830772)

('burger', 5) vs ('swipe', 4)

Ttest_indResult(statistic=2.215874978949087, pvalue=0.027866499438757488)

('burger', 5) vs ('swipe', 5)

Ttest_indResult(statistic=2.8283089411876623, pvalue=0.0052076221586708762)

('swipe', 1) vs ('swipe', 2)

Ttest_indResult(statistic=1.7740264404232391, pvalue=0.077408728725552087)

('swipe', 1) vs ('swipe', 3)

Ttest_indResult(statistic=2.9590379368657991, pvalue=0.0034639370862902222)

('swipe', 1) vs ('swipe', 4)

Ttest_indResult(statistic=1.5390840856715888, pvalue=0.12514089473419432)

('swipe', 1) vs ('swipe', 5)

Ttest_indResult(statistic=2.2048134129200938, pvalue=0.028535852417557052)

('swipe', 2) vs ('swipe', 3)

Ttest_indResult(statistic=1.280041747845708, pvalue=0.20165292226882248)

('swipe', 2) vs ('swipe', 4)

Ttest_indResult(statistic=-0.24938402863057901, pvalue=0.80324845639334197)

('swipe', 2) vs ('swipe', 5)

Ttest_indResult(statistic=0.46261298892397296, pvalue=0.64400676703062332)

('swipe', 3) vs ('swipe', 4)

Ttest_indResult(statistic=-1.5243950537075324, pvalue=0.12863551731870207)

('swipe', 3) vs ('swipe', 5)

Ttest_indResult(statistic=-0.82168544483210404, pvalue=0.41197355678268388)

('swipe', 4) vs ('swipe', 5)

Ttest_indResult(statistic=0.7109532653097157, pvalue=0.47772206370287928)

Global Burger vs Swipe per tid Tests [success]

burger vs swipe 1

Ttest_indResult(statistic=-0.028285152780717485, pvalue=0.97746081014720443)

burger vs swipe 2

Ttest_indResult(statistic=1.95549234878333, pvalue=0.052216567883136028)

burger vs swipe 3

Ttest_indResult(statistic=3.1643004716025089, pvalue=0.0018713455894696909)

burger vs swipe 4

Ttest_indResult(statistic=1.7105169556030884, pvalue=0.089017873436017358)

burger vs swipe 5

Ttest_indResult(statistic=2.3988552989827197, pvalue=0.017594620657847271)

Global Burger vs Global Swipe Test [success]

burger vs swipe

Ttest_indResult(statistic=3.8996269795774503, pvalue=0.00010184696908914221)

Task Questionnaires

Task Question 0

Descriptions [result]

Global Descriptions [result]

burger

count | 110.0 |
mean | 6.90909090909 |
std | 0.395976427467 |
min | 4.0 |
25% | 7.0 |
50% | 7.0 |
75% | 7.0 |
max | 7.0 |

swipe

count | 140.0 |
mean | 6.83571428571 |
std | 0.458504203722 |
min | 5.0 |
25% | 7.0 |
50% | 7.0 |
75% | 7.0 |
max | 7.0 |

Descriptions per tid [result]

('burger', 1)

count | 22.0 |
mean | 7.0 |
std | 0.0 |
min | 7.0 |
25% | 7.0 |
50% | 7.0 |
75% | 7.0 |
max | 7.0 |

('burger', 2)

count | 22.0 |
mean | 6.90909090909 |
std | 0.294244943168 |
min | 6.0 |

25% | 7.0 |
50% | 7.0 |
75% | 7.0 |
max | 7.0 |

('burger', 3)

count | 22.0 |
mean | 6.77272727273 |
std | 0.751621623515 |
min | 4.0 |
25% | 7.0 |
50% | 7.0 |
75% | 7.0 |
max | 7.0 |

('burger', 4)

count | 22.0 |
mean | 6.90909090909 |
std | 0.294244943168 |
min | 6.0 |
25% | 7.0 |
50% | 7.0 |
75% | 7.0 |
max | 7.0 |

('burger', 5)

count | 22.0 |
mean | 6.95454545455 |
std | 0.213200716356 |
min | 6.0 |
25% | 7.0 |
50% | 7.0 |
75% | 7.0 |
max | 7.0 |

('swipe', 1)

count | 28.0 |
mean | 6.85714285714 |
std | 0.448395139423 |
min | 5.0 |
25% | 7.0 |
50% | 7.0 |
75% | 7.0 |
max | 7.0 |

('swipe', 2)

count | 28.0 |
mean | 6.92857142857 |
std | 0.262265264156 |
min | 6.0 |
25% | 7.0 |
50% | 7.0 |
75% | 7.0 |
max | 7.0 |

('swipe', 3)

count | 28.0 |
mean | 6.82142857143 |
std | 0.475594865606 |
min | 5.0 |
25% | 7.0 |
50% | 7.0 |
75% | 7.0 |
max | 7.0 |

('swipe', 4)

count | 28.0 |
mean | 6.82142857143 |
std | 0.475594865606 |
min | 5.0 |
25% | 7.0 |
50% | 7.0 |
75% | 7.0 |
max | 7.0 |

('swipe', 5)

count | 28.0 |
mean | 6.75 |
std | 0.585314097381 |
min | 5.0 |
25% | 7.0 |
50% | 7.0 |
75% | 7.0 |
max | 7.0 |

Cross-compare Tests per tid [result]

('burger', 1) vs ('burger', 2)

Ttest_indResult(statistic=1.4491376746189426, pvalue=0.16206871193916272)

('burger', 1) vs ('burger', 3)

Ttest_indResult(statistic=1.4182715723279398, pvalue=0.17078161271838718)

('burger', 1) vs ('burger', 4)

Ttest_indResult(statistic=1.4491376746189426, pvalue=0.16206871193916272)

('burger', 1) vs ('burger', 5)

Ttest_indResult(statistic=1.0000000000000089, pvalue=0.32869468323645945)

('burger', 1) vs ('swipe', 1)

Ttest_indResult(statistic=1.6858544608470538, pvalue=0.1033481555997189)

('burger', 1) vs ('swipe', 2)

Ttest_indResult(statistic=1.4411533842457791, pvalue=0.16103934953023244)

('burger', 1) vs ('swipe', 3)

Ttest_indResult(statistic=1.9867985355975688, pvalue=0.057179118127154482)

('burger', 1) vs ('swipe', 4)

Ttest_indResult(statistic=1.9867985355975688, pvalue=0.057179118127154482)

('burger', 1) vs ('swipe', 5)

Ttest_indResult(statistic=2.2601124105026518, pvalue=0.03208842174489044)

('burger', 2) vs ('burger', 3)

Ttest_indResult(statistic=0.79240581569306312, pvalue=0.434959083634744)

('burger', 2) vs ('burger', 4)

Ttest_indResult(statistic=0.0, pvalue=1.0)

('burger', 2) vs ('burger', 5)

Ttest_indResult(statistic=-0.58673869403846191, pvalue=0.56082327307745816)

('burger', 2) vs ('swipe', 1)

Ttest_indResult(statistic=0.49271170229567274, pvalue=0.62452609288904781)

('burger', 2) vs ('swipe', 2)

Ttest_indResult(statistic=-0.24365889171012692, pvalue=0.80866695186899662)

('burger', 2) vs ('swipe', 3)

Ttest_indResult(statistic=0.79978792158211109, pvalue=0.42796667468869776)

('burger', 2) vs ('swipe', 4)

Ttest_indResult(statistic=0.79978792158211109, pvalue=0.42796667468869776)

('burger', 2) vs ('swipe', 5)

Ttest_indResult(statistic=1.2510600541476802, pvalue=0.2178987002569478)

('burger', 3) vs ('burger', 4)

Ttest_indResult(statistic=-0.79240581569306312, pvalue=0.434959083634744)

('burger', 3) vs ('burger', 5)

Ttest_indResult(statistic=-1.0915536458196295, pvalue=0.28570930736987338)

('burger', 3) vs ('swipe', 1)

Ttest_indResult(statistic=-0.46568478226137766, pvalue=0.64455504483952952)

('burger', 3) vs ('swipe', 2)

Ttest_indResult(statistic=-0.92910316007448612, pvalue=0.36170919252817291)

('burger', 3) vs ('swipe', 3)

Ttest_indResult(statistic=-0.26506842102661687, pvalue=0.7925715578816479)

('burger', 3) vs ('swipe', 4)

Ttest_indResult(statistic=-0.26506842102661687, pvalue=0.7925715578816479)

('burger', 3) vs ('swipe', 5)

Ttest_indResult(statistic=0.11672011558286063, pvalue=0.90768224442657708)

('burger', 4) vs ('burger', 5)

Ttest_indResult(statistic=-0.58673869403846191, pvalue=0.56082327307745816)

('burger', 4) vs ('swipe', 1)

Ttest_indResult(statistic=0.49271170229567274, pvalue=0.62452609288904781)

('burger', 4) vs ('swipe', 2)

Ttest_indResult(statistic=-0.24365889171012692, pvalue=0.80866695186899662)

('burger', 4) vs ('swipe', 3)

Ttest_indResult(statistic=0.79978792158211109, pvalue=0.42796667468869776)

('burger', 4) vs ('swipe', 4)

Ttest_indResult(statistic=0.79978792158211109, pvalue=0.42796667468869776)

('burger', 4) vs ('swipe', 5)

Ttest_indResult(statistic=1.2510600541476802, pvalue=0.2178987002569478)

('burger', 5) vs ('swipe', 1)

Ttest_indResult(statistic=1.0129210828495314, pvalue=0.31711639921326906)

('burger', 5) vs ('swipe', 2)

Ttest_indResult(statistic=0.38622696788057731, pvalue=0.70103791654914316)

('burger', 5) vs ('swipe', 3)

Ttest_indResult(statistic=1.3216640957475614, pvalue=0.193927451557106)

('burger', 5) vs ('swipe', 4)

Ttest_indResult(statistic=1.3216640957475614, pvalue=0.193927451557106)

('burger', 5) vs ('swipe', 5)

Ttest_indResult(statistic=1.7104014031978396, pvalue=0.095898470850199258)

('swipe', 1) vs ('swipe', 2)

Ttest_indResult(statistic=-0.72760687510900546, pvalue=0.47074919343997945)

('swipe', 1) vs ('swipe', 3)

Ttest_indResult(statistic=0.28912165479145496, pvalue=0.77359920204510002)

('swipe', 1) vs ('swipe', 4)

Ttest_indResult(statistic=0.28912165479145496, pvalue=0.77359920204510002)

('swipe', 1) vs ('swipe', 5)

Ttest_indResult(statistic=0.76892189194508209, pvalue=0.44551595328148408)

('swipe', 2) vs ('swipe', 3)

Ttest_indResult(statistic=1.0438803085865349, pvalue=0.30250767106524179)

('swipe', 2) vs ('swipe', 4)

Ttest_indResult(statistic=1.0438803085865349, pvalue=0.30250767106524179)

('swipe', 2) vs ('swipe', 5)

Ttest_indResult(statistic=1.4732338600612171, pvalue=0.14905035503113803)

('swipe', 3) vs ('swipe', 4)

Ttest_indResult(statistic=0.0, pvalue=1.0)

('swipe', 3) vs ('swipe', 5)

Ttest_indResult(statistic=0.50116144175073229, pvalue=0.61837946822394008)

('swipe', 4) vs ('swipe', 5)

Ttest_indResult(statistic=0.50116144175073229, pvalue=0.61837946822394008)

Global Burger vs Swipe per tid Tests [result]

burger vs swipe 1

Ttest_indResult(statistic=0.55997233123865175, pvalue=0.57874985452460637)

burger vs swipe 2

Ttest_indResult(statistic=-0.31266159062439741, pvalue=0.75558308779702033)

burger vs swipe 3

Ttest_indResult(statistic=0.89922333067579296, pvalue=0.37433593164182521)

burger vs swipe 4

Ttest_indResult(statistic=0.89922333067579296, pvalue=0.37433593164182521)

burger vs swipe 5

Ttest_indResult(statistic=1.3611501176257312, pvalue=0.18254059625123423)

Global Burger vs Global Swipe Test [result]

burger vs swipe

Ttest_indResult(statistic=1.3562601440255169, pvalue=0.17626116218076363)

Task Question 1

Descriptions [result]

Global Descriptions [result]

burger

count | 110.0 |
mean | 1.89090909091 |
std | 1.80897585981 |
min | 1.0 |
25% | 1.0 |
50% | 1.0 |
75% | 1.0 |
max | 7.0 |

swipe

count | 140.0 |
mean | 2.86428571429 |

std | 2.12964925773 |
min | 1.0 |
25% | 1.0 |
50% | 2.0 |
75% | 4.0 |
max | 7.0 |

Descriptions per tid [result]

('burger', 1)

count | 22.0 |
mean | 1.95454545455 |
std | 2.01133153544 |
min | 1.0 |
25% | 1.0 |
50% | 1.0 |
75% | 1.0 |
max | 7.0 |

('burger', 2)

count | 22.0 |
mean | 1.77272727273 |
std | 1.87545088374 |
min | 1.0 |
25% | 1.0 |
50% | 1.0 |
75% | 1.0 |
max | 7.0 |

('burger', 3)

count | 22.0 |
mean | 2.0 |
std | 1.74574312189 |
min | 1.0 |
25% | 1.0 |
50% | 1.0 |
75% | 2.0 |
max | 6.0 |

('burger', 4)

count | 22.0 |
mean | 1.77272727273 |
std | 1.54092792643 |
min | 1.0 |
25% | 1.0 |
50% | 1.0 |

75% | 1.0 |
max | 6.0 |

('burger', 5)

count | 22.0 |
mean | 1.95454545455 |
std | 1.98751514465 |
min | 1.0 |
25% | 1.0 |
50% | 1.0 |
75% | 1.0 |
max | 7.0 |

('swipe', 1)

count | 28.0 |
mean | 2.75 |
std | 2.36682315602 |
min | 1.0 |
25% | 1.0 |
50% | 1.0 |
75% | 4.25 |
max | 7.0 |

('swipe', 2)

count | 28.0 |
mean | 2.67857142857 |
std | 2.21198036674 |
min | 1.0 |
25% | 1.0 |
50% | 1.0 |
75% | 4.0 |
max | 7.0 |

('swipe', 3)

count | 28.0 |
mean | 2.82142857143 |
std | 2.16116517662 |
min | 1.0 |
25% | 1.0 |
50% | 2.0 |
75% | 4.0 |
max | 7.0 |

('swipe', 4)

count | 28.0 |
mean | 2.85714285714 |

std | 1.87999774851 |
min | 1.0 |
25% | 1.0 |
50% | 3.0 |
75% | 4.0 |
max | 7.0 |

('swipe', 5)

count | 28.0 |
mean | 3.21428571429 |
std | 2.11445015806 |
min | 1.0 |
25% | 1.0 |
50% | 3.0 |
75% | 4.0 |
max | 7.0 |

Cross-compare Tests per tid [result]

('burger', 1) vs ('burger', 2)

Ttest_indResult(statistic=0.31010458564086002, pvalue=0.75802244540869279)

('burger', 1) vs ('burger', 3)

Ttest_indResult(statistic=-0.080051859907446427, pvalue=0.93658374072558803)

('burger', 1) vs ('burger', 4)

Ttest_indResult(statistic=0.33657671342337503, pvalue=0.73822512878677493)

('burger', 1) vs ('burger', 5)

Ttest_indResult(statistic=0.0, pvalue=1.0)

('burger', 1) vs ('swipe', 1)

Ttest_indResult(statistic=-1.2837421053733327, pvalue=0.2054375873090272)

('burger', 1) vs ('swipe', 2)

Ttest_indResult(statistic=-1.2090139880073498, pvalue=0.23271472223326703)

('burger', 1) vs ('swipe', 3)

Ttest_indResult(statistic=-1.463852065048149, pvalue=0.14995179579288434)

('burger', 1) vs ('swipe', 4)

Ttest_indResult(statistic=-1.6208185434680238, pvalue=0.11224980129520724)

('burger', 1) vs ('swipe', 5)

Ttest_indResult(statistic=-2.1492165095182081, pvalue=0.03688815104511671)

('burger', 2) vs ('burger', 3)

Ttest_indResult(statistic=-0.41604800757760851, pvalue=0.6795040084428422)

('burger', 2) vs ('burger', 4)

Ttest_indResult(statistic=0.0, pvalue=1.0)

('burger', 2) vs ('burger', 5)

Ttest_indResult(statistic=-0.31207579904219773, pvalue=0.75653217927135352)

('burger', 2) vs ('swipe', 1)

Ttest_indResult(statistic=-1.6289142640148464, pvalue=0.10987883761813257)

('burger', 2) vs ('swipe', 2)

Ttest_indResult(statistic=-1.5659419487889481, pvalue=0.12397500203185813)

('burger', 2) vs ('swipe', 3)

Ttest_indResult(statistic=-1.8347896616603989, pvalue=0.072806163662061316)

('burger', 2) vs ('swipe', 4)

Ttest_indResult(statistic=-2.0273655509871724, pvalue=0.048533888623595652)

('burger', 2) vs ('swipe', 5)

Ttest_indResult(statistic=-2.550121168647193, pvalue=0.014070036183701212)

('burger', 3) vs ('burger', 4)

Ttest_indResult(statistic=0.45779999816880002, pvalue=0.64949206222919309)

('burger', 3) vs ('burger', 5)

Ttest_indResult(statistic=0.08059475790364122, pvalue=0.93615340884054188)

('burger', 3) vs ('swipe', 1)

Ttest_indResult(statistic=-1.2889066290162134, pvalue=0.20362802550896689)

('burger', 3) vs ('swipe', 2)

Ttest_indResult(statistic=-1.2123668735785071, pvalue=0.23130618790625015)

('burger', 3) vs ('swipe', 3)

Ttest_indResult(statistic=-1.4865530860485299, pvalue=0.14367932916113879)

('burger', 3) vs ('swipe', 4)

Ttest_indResult(statistic=-1.665827282358026, pvalue=0.10245606821048929)

('burger', 3) vs ('swipe', 5)

Ttest_indResult(statistic=-2.2236416215700405, pvalue=0.030927460331272798)

('burger', 4) vs ('burger', 5)

Ttest_indResult(statistic=-0.33910136104054245, pvalue=0.73632757197468268)

('burger', 4) vs ('swipe', 1)

Ttest_indResult(statistic=-1.7609344102128832, pvalue=0.084815434369215556)

('burger', 4) vs ('swipe', 2)

Ttest_indResult(statistic=-1.7037658302714056, pvalue=0.09497299007775549)

('burger', 4) vs ('swipe', 3)

Ttest_indResult(statistic=-2.0007469881640132, pvalue=0.051138917909208527)

('burger', 4) vs ('swipe', 4)

Ttest_indResult(statistic=-2.2409958289424603, pvalue=0.029698757129413455)

('burger', 4) vs ('swipe', 5)

Ttest_indResult(statistic=-2.7866677954802945, pvalue=0.0076168232047276047)

('burger', 5) vs ('swipe', 1)

Ttest_indResult(statistic=-1.2910409183090523, pvalue=0.20290434875885618)

('burger', 5) vs ('swipe', 2)

Ttest_indResult(statistic=-1.2163777102367443, pvalue=0.22990419438692747)

('burger', 5) vs ('swipe', 3)

Ttest_indResult(statistic=-1.4729715892618513, pvalue=0.14745914516885314)

('burger', 5) vs ('swipe', 4)

Ttest_indResult(statistic=-1.6322512563257097, pvalue=0.10976494840900448)

('burger', 5) vs ('swipe', 5)

Ttest_indResult(statistic=-2.1628863874669357, pvalue=0.035735733189624176)

('swipe', 1) vs ('swipe', 2)

Ttest_indResult(statistic=0.11667176816723937, pvalue=0.90755497563889476)

('swipe', 1) vs ('swipe', 3)

Ttest_indResult(statistic=-0.11792698212695876, pvalue=0.90656666165487043)

('swipe', 1) vs ('swipe', 4)

Ttest_indResult(statistic=-0.18756785365546197, pvalue=0.85195435322794189)

('swipe', 1) vs ('swipe', 5)

Ttest_indResult(statistic=-0.77408790290137819, pvalue=0.44229719902179665)

('swipe', 2) vs ('swipe', 3)

Ttest_indResult(statistic=-0.24444025311801382, pvalue=0.80781680136158207)

('swipe', 2) vs ('swipe', 4)

Ttest_indResult(statistic=-0.32549781971440689, pvalue=0.74609483697056533)

('swipe', 2) vs ('swipe', 5)

Ttest_indResult(statistic=-0.92637576511926945, pvalue=0.35838094161896383)

('swipe', 3) vs ('swipe', 4)

Ttest_indResult(statistic=-0.065975241937917109, pvalue=0.94764585285887681)

('swipe', 3) vs ('swipe', 5)

Ttest_indResult(statistic=-0.68754973774649286, pvalue=0.49468042451910721)

('swipe', 4) vs ('swipe', 5)

Ttest_indResult(statistic=-0.66793226421816831, pvalue=0.50706047845662638)

Global Burger vs Swipe per tid Tests [result]

burger vs swipe 1

Ttest_indResult(statistic=-1.7920485696152606, pvalue=0.081668377626223213)

burger vs swipe 2

Ttest_indResult(statistic=-1.7418063441047225, pvalue=0.089916422412057356)

burger vs swipe 3

Ttest_indResult(statistic=-2.0988468236683779, pvalue=0.042676536020284629)

burger vs swipe 4

Ttest_indResult(statistic=-2.446535421195474, pvalue=0.018837342914925163)

burger vs swipe 5

Ttest_indResult(statistic=-3.0406465555493165, pvalue=0.0042798608827830081)

Global Burger vs Global Swipe Test [result]

burger vs swipe

Ttest_indResult(statistic=-3.9046179737739855, pvalue=0.00012188835447452269)

Final Questionnaires

Final Question 0

Descriptions [result]

Global Descriptions [result]

burger

count | 22.0 |
mean | 1.5 |
std | 1.05785047102 |
min | 1.0 |
25% | 1.0 |
50% | 1.0 |
75% | 1.75 |
max | 5.0 |

swipe

count | 28.0 |
mean | 1.53571428571 |
std | 1.29048204766 |
min | 1.0 |
25% | 1.0 |
50% | 1.0 |
75% | 1.25 |
max | 7.0 |

Global Burger vs Global Swipe Test [result]

burger vs swipe

Ttest_indResult(statistic=-0.10751543495766284, pvalue=0.9148292292550424)

Final Question 1

Descriptions [result]

Global Descriptions [result]

burger

count | 22.0 |
mean | 2.22727272727 |
std | 1.79766563398 |
min | 1.0 |
25% | 1.0 |
50% | 1.0 |
75% | 3.5 |
max | 6.0 |

swipe

count | 28.0 |
mean | 1.67857142857 |
std | 1.18801332542 |
min | 1.0 |
25% | 1.0 |
50% | 1.0 |
75% | 2.0 |
max | 6.0 |

Global Burger vs Global Swipe Test [result]

burger vs swipe

Ttest_indResult(statistic=1.2353085848140299, pvalue=0.22501281363206999)

Final Question 2

Descriptions [result]

Global Descriptions [result]

burger

count | 22.0 |
mean | 1.22727272727 |
std | 0.428932027229 |
min | 1.0 |
25% | 1.0 |
50% | 1.0 |
75% | 1.0 |
max | 2.0 |

swipe

count | 28.0 |
mean | 1.75 |
std | 1.37773297418 |
min | 1.0 |
25% | 1.0 |
50% | 1.0 |
75% | 2.0 |
max | 7.0 |

Global Burger vs Global Swipe Test [result]

burger vs swipe

Ttest_indResult(statistic=-1.8942147514189334, pvalue=0.066878319737774167)

Final Question 3

Descriptions [result]

Global Descriptions [result]

burger

count | 22.0 |
mean | 5.13636363636 |
std | 1.67034226733 |
min | 2.0 |
25% | 3.25 |
50% | 5.5 |
75% | 6.75 |
max | 7.0 |

swipe

count | 28.0 |
mean | 4.5 |
std | 1.45296631451 |
min | 1.0 |
25% | 4.0 |
50% | 4.0 |
75% | 5.25 |
max | 7.0 |

Global Burger vs Global Swipe Test [result]

burger vs swipe

Ttest_indResult(statistic=1.4151306918873736, pvalue=0.16442349507017537)