

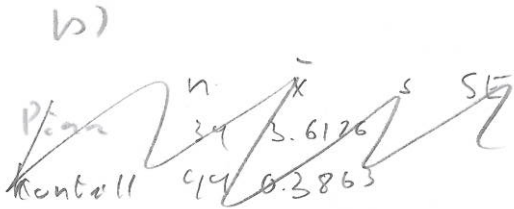
4)

7.77

Piano: istm, furbete die stimmen

Beide Kontrollgruppen

a) Kontrolle asymmetrisch
 Piano: varste widdel
 Loger Score für Piano: 5.06



Kontroll	Piano
0	-6
	-5
	-4
000	-3 0
00	-2 0 0
00000000	-1 0
00000000000000	0 0 0
0000000	1 0
00000000	2 0 0 0
0	3 0 0 0 0 0
000	4 0 0 0 0 0 0
0	5 0 0
	6 0 0 0
	7 0 0 0 0 0
	8
	9 0 0

	n	\bar{x}	s	SE
Piano	34	3.6176	2.0552	0.5240
Kontroll	44	0.3863	2.4229	0.3653

c) $H_0: \mu_P = \mu_K, H_1: \mu_P > \mu_K$

~~$t = \frac{\bar{x}_P - \bar{x}_K - (\mu_P - \mu_K)}{\sqrt{\frac{s_P^2}{n_P} + \frac{s_K^2}{n_K}}}$~~

$$t = \frac{(\bar{x}_P - \bar{x}_K) - (\mu_P - \mu_K)}{\sqrt{\frac{s_P^2}{n_P} + \frac{s_K^2}{n_K}}} = \frac{\bar{x}_P - \bar{x}_K}{\sqrt{s_{EP}^2 + s_{EK}^2}} = 5.06$$

DF = 22 $\Rightarrow P < 0.0001 \Rightarrow$ furbest H_0

7.78

DF = 30 $t^* = 2.042$

~~$t^* = 2.0395$~~

Krit
 $(\bar{x}_p - \bar{x}_n) \pm t^* \sqrt{\frac{s_p^2}{n_p} + \frac{s_n^2}{n_n}}$

$\Rightarrow [1.9270, 4.5355]$

Opps 4 Eth. H05

Menbur: (wirken auf misser.)

$n = 50$

2 Gruppe \uparrow f. ZN, \uparrow f. h. Placebo

$D_i = X_i - Y_i$

parare

a)

$D_i \sim N(\mu, \sigma)$, unabh.

Wir $H_0: \bar{D} \geq 0, H_1: \bar{D} < 0$

b)

$\bar{D} = \frac{1}{n} \sum_i D_i = \frac{1}{n} \sum (X_i - Y_i) = \frac{1}{n} \sum X_i - \frac{1}{n} \sum Y_i$
 $= \bar{X} - \bar{Y}$

DF = 49 ≈ 50 (40)

$t = \frac{\bar{D}}{\frac{s_D}{\sqrt{n}}} = \frac{5.7 - 12.0}{\frac{10.5}{\sqrt{50}}} = -4.44$

$P(T < -4.44) = P(T > 4.44) < 0.0005$

\Rightarrow Es gibt H_0 $\alpha \geq 0.0005$