Mensch-Computer-Interaktion, Übung 5

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Aufgabe 5.1: Task-Load-Index und System Usability Scale

(a) TXL, Task: Ein Dokument hochladen
Rating

	User 1	**User 2**	**User 3**
Mental Demand	20	15	25
Physical Demand	5	10	5
Temporal Demand	30	25	30
Perfomance	0	0	5
Effort	5	10	10
Frustration	0	0	0

Weights

	User 1	**User 2**	**User 3**
Mental Demand	1	2	0
Physical Demand	0	0	0
Temporal Demand	2	4	3
Perfomance	5	2	4
Effort	2	2	3
Frustration	5	5	5

Result

	User 1	**User 2**	**User 3**
Mental Demand	20	30	0
Physical Demand	0	0	0
Temporal Demand	60	100	90
Perfomance	0	0	20
Effort	10	20	30
Frustration	0	0	0
Σ	90	150	140
AVG	6	10	9.33

(b) SUS, Task: Ein Dokument hochladen

Frage	X_{U1}	X_{U2}	X_{U3}	Y_{U1}	Y_{U2}	Y_{U3}
I think that I would like to use this system frequently.	5	4	5	4	3	4
I found the system unnecessarily complex.	1	1	1	4	4	4
I thought the system was easy to use.	4	4	5	3	3	4
I think that I would need the support of a technical person to be able to use this system.	1	1	1	4	4	4
I found the various functions in this system were well integrated.	5	4	5	4	3	4
I thought there was too much inconsistency in this system.	1	2	1	4	3	4
I would imagine that most people would learn to use this system very quickly.	4	4	4	3	3	3
I found the system very cumbersome to use.	1	1	1	4	4	4
I felt very confident using the system.	4	5	5	3	4	4
I needed to learn a lot of things before I could get going with this system.	1	2	1	4	3	4
Σ				37	34	39
Score				92.5	85	97.5

Aufgabe 5.2:

Mit R ergibt sich

```
1 mouse = read.csv2("Testdaten_Mouse.csv")
2 touch = read.csv2("Testdaten_Touchpad.csv")
3 cor(mouse$AVG,mouse$ID)
4 cor(touch$AVG,touch$ID)
5 summary(lm(AVG ~ ID, data = mouse))
6 summary(lm(AVG ~ ID, data = touch))
```

Ergibt eine Korrelation von 0.8633773 bzw. 0.9289729 und

	Maus	Touchpad
(Intercept)	172.78***	132.20***
	(38.30)	(35.90)
ID	89.05***	122.41***
	(9.83)	(9.22)
R^2	0.75	0.86
Adj. R^2	0.74	0.86
Num. obs.	30	30

$^{***}p < 0.001$; $^{**}p < 0.01$; $^{*}p < 0.05$

Fitt's Law passt besser auf die Touchpad-Daten.