```
library(ez)
library(lme4)
library(multcomp)
source(file.path(pfadu, "phoc.txt"))

# S. 9
amp = read.table(file.path(pfadu, "amplitude.txt"))
head(amp)
ezANOVA(amp, .(d), .(Vpn), .(Amplitude))

# S.11
a = lmer(d ~ Amplitude + (1|Vpn), data = amp)

# S.12
anova(a)
ohne = lmer(d ~ 1 + (1|Vpn), data = amp)
ohne = update(a, ~ . -Amplitude)

# S. 13
anova(a, ohne)

# S. 14
# ANOVA
p = phoc(amp, .(d), .(Vpn), .(Amplitude))
round(p$res, 3)

# MM
summary(glht(a, linfct = mcp(Amplitude = "Tukey")))

# S. 15
param = read.table(file.path(pfadu, "param.txt"))
head(param)
names(param)

# S. 16
o = lmer(slopes ~ Group * Cont + (1|Vpn), data = param)
anova(o)
o2 = lmer(slopes ~ Group + Cont + (1|Vpn), data = param)
# oder
o2 = update(o, ~ . -Group:Cont)
anova(o, o2)

# S. 17
ohne = lmer(slopes ~ 1 + (1|Vpn), data = param)
# oder
ohne2 = update(o2, ~ . -Group -Cont)

o3 = update(o2, ~ . -Cont)
o4 = update(o2, ~ . -Group)
anova(o3, ohne)
anova(o4, ohne)

# S. 18
```

```
noise = read.table(file.path(pfadu, "noise.txt"))
head(noise)
str(noise)

# S. 20
o = lmer(rt ~ Type * Noise + (1|Subj), data = noise)
o2 = update(o, ~ . -Type:Noise)
# das gleiche
o2 = lmer(rt ~ Type + Noise + (1|Subj), data = noise)
anova(o, o2)

# S. 21
beide = with(noise, interaction(Type, Noise))
b = lmer(rt ~ beide + (1|Subj), data = noise)
p = summary(glht(b, linfct = mcp(beide = "Tukey")))
round(phsel(p), 3)
round(phsel(p, 2), 3)

# S. 22
asp = read.table(file.path(pfadu, "asp.txt"))
o = lmer(d ~ Kons * Bet + (1|Wort) + (1|Vpn), data = asp)
```