```
> dat<-read.spss(file = "E:\\R\\Data\\EVS_Var_CompUniOff.sav",use.value.labels= T, to.data.frame = T)
Warning messages:
1: In read.spss(file = "E:\\R\\Data\\EVS_Var_CompUniOff.sav", use.value.labels = T,  :
  E:\R\Data\EVS_Var_CompUniOff.sav: Unrecognized record type 7, subtype 8 encountered in system file
2: In read.spss(file = "E:\\R\\Data\\EVS_Var_CompUniOff.sav", use.value.labels = T,  :
  E:\R\Data\EVS_Var_CompUniOff.sav: Unrecognized record type 7, subtype 10 encountered in system file
3: In read.spss(file = "E:\\R\\Data\\EVS_Var_CompUniOff.sav", use.value.labels = T,  :
  E:\R\Data\EVS_Var_CompUniOff.sav: Unrecognized record type 7, subtype 18 encountered in system file
4: In `levels<-`(`*tmp*`, value = if (nl == nL) as.character(labels) else paste0(labels,  :
  duplicated levels in factors are deprecated
5: In `levels<-`(`*tmp*`, value = if (nl == nL) as.character(labels) else paste0(labels,  :
  duplicated levels in factors are deprecated
6: In `levels<-`(`*tmp*`, value = if (nl == nL) as.character(labels) else paste0(labels,  :
  duplicated levels in factors are deprecated

> #tell R these variables are ordered
> dat$eduPar<-as.ordered(dat$eduPar)
> dat$eduRes<-(as.ordered(dat$eduRes))
> dat$egp11Par<-(as.ordered(dat$egp11Par))
> dat$isced3Par<-(as.ordered(dat$isced3Par))
Warning message:
In `levels<-`(`*tmp*`, value = if (nl == nL) as.character(labels) else paste0(labels,  :
  duplicated levels in factors are deprecated
> dat$isced3Res<-(as.ordered(dat$isced3Res))
Warning message:
In `levels<-`(`*tmp*`, value = if (nl == nL) as.character(labels) else paste0(labels,  :
  duplicated levels in factors are deprecated
> #Factors
> dat$NationalExamn<-(as.factor(dat$NationalExamn))
> dat$cohort47<-as.factor(dat$cohort47)
> dat$cohort38<-as.factor(dat$cohort38)
> dat$cohort55<-as.factor(dat$cohort55)


cm1logit<-clmm( eduRes2 ~ eduPar2 + SIOPSPar+egp2+agea+gender+cohort38 +cohort47+cohort55 + (1|s003), da
ta=dat, weights = s017, Hess =T, model = T)
Warning messages:
1: In update.uC(rho) :
  iteration limit reached when updating the random effects
  at iteration 4
2: In update.uC(rho) :
  step factor reduced below minimum when updating the random effects
  at iteration 118
3: In update.uC(rho) :
  step factor reduced below minimum when updating the random effects
  at iteration 142
4: In update.uC(rho) :
  step factor reduced below minimum when updating the random effects
  at iteration 915
5: In update.uC(rho) :
  iteration limit reached when updating the random effects
  at iteration 1250
6: In update.uC(rho) :
  step factor reduced below minimum when updating the random effects
  at iteration 1383
```

```
7: In update.uC(rho) :
  iteration limit reached when updating the random effects
  at iteration 1461
8: In update.uC(rho) :
  step factor reduced below minimum when updating the random effects
  at iteration 1538
> summary(cm1logt)
Error in summary(cm1logt) : object 'cm1logt' not found
> summary(cm1logit)
Cumulative Link Mixed Model fitted with the Laplace approximation

formula: eduRes2 ~ eduPar2 + SIOPSPar + egp2 + agea + gender + cohort38 +      cohort47 + cohort55 + (1 | s003)
data:    dat

 link  threshold nobs     logLik    AIC      niter       max.grad cond.H
 logit flexible  20269.81 -30933.12 61920.23 5957(23798) 9.62e-02 5.7e+05

Random effects:
 Groups Name        Variance Std.Dev.
 s003   (Intercept) 0.435    0.6596
Number of groups:  s003 31

Coefficients:
                                                Estimate Std. Error z value Pr(>|z|)
eduPar2 II, lower secondary                     0.740572   0.040151  18.445  < 2e-16 ***
eduPar2 III, upper secondary                    0.924604   0.053582  17.256  < 2e-16 ***
eduPar2 IV, upper secondary, pre-tertiary       1.177141   0.047835  24.609  < 2e-16 ***
eduPar2V, lower tertiary education, BA level    1.641680   0.068336  24.024  < 2e-16 ***
eduPar2V1, higher tertiary education, >= MA level  2.230778   0.088504  25.205  < 2e-16 ***
SIOPSPar                                        0.013710   0.001808   7.583 3.38e-14 ***
egp2I :Higher Controllers                       0.558586   0.078500   7.116 1.11e-12 ***
egp2II :Lower Controllers                       0.508291   0.063502   8.004 1.20e-15 ***
egp2IIIa:Routine Nonmanual                      0.495482   0.071858   6.895 5.38e-12 ***
egp2IIIb:Lower Sales-Service                    0.398054   0.078719   5.057 4.27e-07 ***
egp2IVa:Selfempl with empl                      0.615464   0.073512   8.372  < 2e-16 ***
egp2IVb:Selfempl no empl                        0.221335   0.071668   3.088 0.002013 **
egp2V :Manual Supervisors                       0.141072   0.075815   1.861 0.062779 .
egp2VI :Skilled Worker                         -0.056081   0.042966  -1.305 0.191810
egp2VIIb:Farm Labor                            -0.259625   0.053603  -4.844 1.28e-06 ***
egp2IVc:Selfempl Farmer                         -0.195554   0.056923  -3.435 0.000592 ***
agea                                           -0.028354   0.004941  -5.739 9.53e-09 ***
genderfemale                                    -0.032169   0.025447  -1.264 0.206168
cohort381                                       -0.163867   0.134565  -1.218 0.223320
cohort471                                       -0.069366   0.095155  -0.729 0.466015
cohort551                                        0.073386   0.059178   1.240 0.214938
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Threshold coefficients:
                                                                                  Estimate Std. Error z value
I , less than lower secondary| II, lower secondary                                -2.7709     0.3272  -8.468
II, lower secondary| III, upper secondary                                        -1.2626     0.3265  -3.867
III, upper secondary| IV, upper secondary, pre-tertiary                          -0.3304     0.3264  -1.012
IV, upper secondary, pre-tertiary|V, lower tertiary education, BA level           1.2572     0.3265   3.850
V, lower tertiary education, BA level |V1, higher tertiary education, >= MA level  2.6793     0.3271   8.190
(101 observations deleted due to missingness)
```