

log using "e:\path analysis.log", replace

* sembuilder

* example 42g : One- and two-level mediation models (multilevel)

```
use http://www.stata-press.com/data/r15/gsem_multimed, clear
gen hi_perm = 1
replace hi_perm = 0 if perform < 5.005317
label variable hi_perm "high performer"
label define hi_perm 1 "high performer" 0 "low performer"
label value hi_perm hi_perm
```

* Single-level mediation

```
*multiple regression with the reg command
reg perform satis suppor
```

```
* Muleiple Regression wtih the sem command
sem (perform <- satis suppor)
estat gof, stats(all)
estat teffects
```

```
* Muleiple Regression wtih the sem command and no covariance between Satis and support
sem (perform <- satis suppor), cov(satis*suppor@0)
estat gof, stats(all)
estat teffects
```

```
* Muleiple Regression wtih the sem command and no covariance between Satis and support, and the equal
* regression coefficient for satis and support
```

```
sem (perform <- satis@b suppor@b), cov(satis*suppor@0)
estat gof, stats(all)
estat teffects
```

```
* Muleiple Regression wtih the sem command and no covariance between Satis and support, and fix the regression
* coefficient of satis to perform as 0.78
```

```
sem (perform <- satis@0.78 suppor), cov(satis*suppor@0)
estat gof, stats(all)
estat teffects
```

```
* Muleiple Regression wtih the sem command and covariance between Satis and support
```

```
sem (perform <- satis suppor) (satis <- suppor)
estat gof, stats(all)
estat teffects
```

* Multiple-group comparison

```
sem (perform <- satis suppor) (satis <- suppor), group(hi_perm)
sem (perform <- satis suppor) (satis <- suppor), group(hi_perm) ginvariant(all)
estat teffects
```

* one-level model with gsem

```
gsem (perform <- satis suppor) (satis <- suppor)
gsem, coeflegend
nlcom _b[perform:suppor]+_b[perform:satis]*_b[satis:suppor]
```

* Two-level model with gsem

```
gsem (perform <- satis suppor M1[branch]) (satis <- suppor M2[branch]), cov(M1[branch]*M2[branch]@0)
```

```
nlcom _b[perform:satis]*_b[satis:suppor]
nlcom _b[perform:suppor]+_b[perform:satis]*_b[satis:suppor]
```