Here we provide six model specifications for the Assink2015 empirical example .

$$
\begin{aligned}
T_{ij}^{CHE} &= \boldsymbol{\beta}_0 + \boldsymbol{\beta}_1 \times X_{pubstatus_{ij}} + \boldsymbol{\beta}_2 \times x_{year_{ij}} + u_j + v_{ij} + e_{ij} \\
T_{ij}^{CE} &= \boldsymbol{\beta}_0 + \boldsymbol{\beta}_1 \times X_{pubstatus_{ij}} + \boldsymbol{\beta}_2 \times x_{year_{ij}} + u_j + e_{ij} \\
T_{ij}^{HE} &= \boldsymbol{\beta}_0 + \boldsymbol{\beta}_1 \times X_{pubstatus_{ij}} + \boldsymbol{\beta}_2 \times x_{year_{ij}} + u_j + v_{ij} + e_{ij} \\
T_{ij}^{IE} &= \boldsymbol{\beta}_0 + \boldsymbol{\beta}_1 \times X_{pubstatus_{ij}} + \boldsymbol{\beta}_2 \times x_{year_{ij}} + v_{ij} + e_{ij} \\
T_{ij}^{AE} &= \boldsymbol{\beta}_0 + \boldsymbol{\beta}_1 \times X_{pubstatus_{ij}} + \boldsymbol{\beta}_2 \times x_{year_{ij}} + u_j + v_{ij} + e_{ij} \\
T_{ij}^{MLMA} &= \boldsymbol{\beta}_{0_{ij}} + \boldsymbol{\beta}_1 \times X_{pubstatus_{ij}} + \boldsymbol{\beta}_2 \times x_{year_{ij}} + \epsilon_{ij} \\
\boldsymbol{\beta}_{0_{ij}} &= \boldsymbol{\theta}_{0j} + v_{ij} \\
\boldsymbol{\theta}_{0j} &= \boldsymbol{\gamma}_{00} + \mu_{0j}
\end{aligned}
$$

where $\text{Var}(u_j) = \tau^2$, $\text{Var}(e_{ij}) = \sigma_j^2$, $\text{Var}(v_{ij}) = \omega^2$, and $\text{Cov}(e_{hj}, e_{ij}) = \rho\sigma_j^2$ for the correspondent parameters in CHE, CE, HE, IE, AE model. $\epsilon_{ij} \sim \mathcal{N}(0,\, \sigma_{ij}^2)$, $v_{ij} \sim \mathcal{N}(0,\, \omega^2)$, and $\mu_{0j} \sim \mathcal{N}(0,\, \tau^2)$ for the correspondent parameters in the MLMA model.