Figure 1: Simplified Plate Notation without Non-Decision-Time

$$\Phi(x_{ts}, \alpha_s, \beta_s) = 0.5 + 0.5 \cdot erf\left(\frac{x_{ts} - \alpha_s}{\beta_s \cdot \sqrt{2}}\right)$$

$$P(x_{ts}, \lambda_s, \alpha_s, \beta_s) = \lambda_s + (1 - 2\lambda_s) \cdot \Phi(x_{ts}, \alpha_s, \beta_s)$$

$$\mu_{rt,ts} = \beta_{rt_0,s} + \beta_{rt,s} * P(x_{ts}, \lambda_s, \alpha_s, \beta_s) * (1 - P(x_{ts}, \lambda_s, \alpha_s, \beta_s))$$

$$RT_{ts} \sim LogNormal(\mu_{rt,ts}, \sigma_{rt_s})$$

$$r_{ts} \sim Bern(P(x_{ts}, \lambda_s, \alpha_s, \beta_s))$$