**PSQF 6271 Longitudinal MLM Formative Assessment #3: Lesa’s Answer Key**

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| **Model  Parameters:** | **Otherwise known as  (list synonyms):** |  | **GLM:** |  | **For Multilevel Models: Time = 0,1,2,3** | | |
|  | Regression  Empty Model |  | Empty Means, Random Intercept Model | Fixed Linear Time,  Random Intercept Model | Random Linear Time Model |
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| Terms that are Fixed Effects (and their interpretations  in that model) | Model for the Means; Structural Model; constant part everybody gets to build their predicted outcome |  | =  fixed intercept = grand mean |  | =  fixed intercept = grand mean  of person means | = fixed intercept  = predicted mean  *at time 0*  = fixed time slope  = average change in  per unit time | = fixed intercept =  predicted mean at time 0  = fixed time slope  = average change in  per unit time; *now average  slope of person slopes* |
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| Terms that  will have  Level-2  variances  (and their interpretations  in that model) | Between-Person; inter-individual, time-invariant, random effects,  G matrix |  | = person-specific residual;  total deviation from sample mean for person *i* |  | =  random intercept  = deviation of  person mean from grand mean of person means | = random intercept  = deviation of  person mean from  grand mean of  person means | = random intercept  = deviation of person mean  from grand mean of person means *at time 0*  = random time slope = deviation of person slope from grand mean of person slopes |
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| Terms that  will have  Level-1  variances  (and their interpretations  in that model) | Within-Person, intra-individual, time-varying, residual,  R matrix |  | ( could also go here, in the sense that it is a single-level model, although does not go with WP  in this model) |  | = residual = time-specific deviation from person mean  for person *i* | = residual = time-specific deviation from level-2  predicted outcome  for person *i* | = residual = time-specific deviation from level-2  predicted outcome  for person *i* |
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