Examining school variables affecting PISA 2012 math achievement in Turkey and Shanghai-China

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Abstract

Keywords:

1. Introduction

1.1. Purpose of the study

2. Method

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2.1. One way ANOVA model with random effects

Level 1: $Y_{ij} = \beta_{0j} + r_{ij}$ A

Level 2: $\beta_{0j} = \gamma_{00} + u_{0j}$

2.2. Means as outcome model

Level 1: $Y_{ij} = \beta_{0j} + r_{ij}$

Level 2: $\beta_{0j} = \gamma_{00} + \gamma_{01} * (MACTIV_j) + \gamma_{02} * (SCHSIZE_j) + \gamma_{03} * (SCMATEDU_j) + \gamma_{04} * (TCMORALE_j) + u_{0j}$ A

3. Results

3.1. Are there differences among schools which participated in PISA 2012 study in Turkey and Shanghai-China in terms of math achievement?

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Table 1. Analysis results of one-way ANOVA model with random effects						
Fixed effect	Coefficient	Standard error	t-ratio	Approx. df	p-value	

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3.2. What are school level variables that clarify differences among schools which participated in PISA 2012 study in Turkey and Shanghai-China in terms of math achievement?

Table 2. Analysis results of means as outcome model						
Fixed effect	Coefficient	SH	Approx. df	p-value	Effect value	

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4. Discussion