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SOCIAL CAPITAL STRUCTURAL MODELLING IN MATHEMATICAL LITERACY

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ABSTRACT

This study proposed a model that integrates social capital in predicting mathematical literacy (ML). A five-factor (parents, family, teacher, friend and the Internet) 16-item social capital model measured in Likert scales ranging from 1 (strongly disagree) to 10 (strongly agreed) was developed and validated. A Mathematics Literacy Test consisted of questions selected from PISA 2006 released mathematics items was administered.

A sample of 1021 respondents from 11 secondary schools was selected. Structural Equation Modeling (SEM using AMOS 22) was employed to test the measurement model and the structural model. Results showed that the factor loadings of all five-factor were above 0.6. The goodness-of-fit test indicated the fit indices GFI = 0.934, AGFI = 0.904, CFI = 0.934, NFI = 0.903 and RMSEA= 0.070 met the criteria set for model fit.

The hypothesis testing supported the effect of the Internet and home economic capital, and the teacher factor on the ML. Parent, the Internet, and family as mediators had a negative effect on the relationship between parents' educational attainment level and ML.

It is relevant that we included the Internet as an additional social capital factor when striving to compete for global educational excellence in this information age.