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NEWSLETTER

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## **The Relationship between the Teacher Education Level and Student Academic Achievement: An Empirical Study Based on Data from the China Education Panel Survey**

By Gu, J. & Xu, X.

Correspondence to: Xinyue Xu, Changchun University of Technology, China. E-mail: [95577638@qq.com](mailto:95577638@qq.com)

Optimizing teachers' qualifications has been viewed as a consequential strategy for the comprehensive enhancement of the quality of basic education in China. Drawing on baseline and follow-up data from the China Education Panel Survey (CEPS), this study investigates the effects of teacher education levels on student academic performance using the hierarchical linear model (HLM). The effects are measured by the students' academic gains in secondary Chinese language, mathematics, and English.

### Research Findings:

- The effects of teacher education levels on student academic performance in Chinese language and English is not affected by the choice of analysis model and other factors. The effects of teacher education levels on student academic performance in mathematics can be affected or moderated by other explanatory variables.
- Higher teacher education levels (full-time university degrees or above) have more significant positive effects on student academic progress in Chinese language and English, compared with lower teacher education levels (junior college degrees), whereas the gap between higher and medium teacher education levels (adult undergraduate course degrees) is not significant. Higher teacher education levels have more noticeable effects on students' academic gains in mathematics than lower ones.

The study uses ANOVA and T-test to analyze the questionnaires from the CEPS, aiming to pinpoint the factors influencing the effects in question. Teaching behaviors, such as providing personalized tutoring, posing questions, and giving praises, are salient factors contributing to student academic progress. Moreover, teachers with higher education levels are more skillful in choosing suitable teaching methods and leveraging digital media to meet the needs of students.

Policy implications of the study include: (i) Raising teacher entry qualifications is helpful in narrowing the achievement gaps generated by stu-

dents' personal factors. (ii) In the meantime, it is important to expand opportunities for in-service teachers to further elevate their education levels.

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