
Newsletter

How to Enhance the Application Effectiveness of the “Smart Primary and Secondary Education of China” Platform? An Analysis Based on a Nationwide Survey.

By Wang, D., Jiang, S., Guo, J., Pan, C., & Zhu, J.

Correspondence to: Shuangshuang Jiang, Northwest China Normal University, China. E-mail: jiangss.ss@foxmail.com

THE introduction of “Smart Primary and Secondary Education of China” platform has been a national strategy for the country to promote the digital transformation of education and improve the quality of its basic education. Based on the nationwide survey of 10,359 primary and secondary teachers from 25 provincial administrative regions, this study investigates the factors influencing the use of the national platform among Chinese basic education teachers. The study is grounded on the unified theory of acceptance and use of technology and the information systems success model. Analytical methods include structural equation modelling (SEM) and fuzzy-set qualitative comparative analysis (fsQCA).

The SEM-based analysis examined the effects of five factors, namely, platform services, performance expectations, effort expectations, social impact, and facilitating conditions, on the teacher’s platform application intention and behavior. The analysis results reveal that platform services, performance expectations, and social impact had significant and positive effects on the teacher’ application intention, whereas effort expectations had no such effects, and that facilitating conditions and the teacher’s application intention significantly and positively affected their platform application behavior. Furthermore, the teacher’s application behavior was also related to their demographic characteristics. Male teachers used the national platform more frequently than female teachers; novice teachers with less than 5 years of service and proficient teachers with 6–10 years of service used it more frequently than senior teachers with over 10 years of teaching experience; primary teachers use it more frequently than their junior and senior secondary counterparts; teachers in eastern China used it more frequently than those in central and western regions; and teachers at city-based schools used it more frequently than their counterparts working in county, township, and village schools.

In the fsQCA-based analysis, platform services, performance expectations, effort expectations, social impact, and facilitating conditions

were treated as antecedent variables for a configuration analysis, with application intention (high application intention or non-high application intention) as the outcome variable. Four configurational paths for high application intention were identified; based on the core and peripheral conditions of each configuration, four pathways to enhancing teachers' intention to apply the national platform were synthesized. In addition, by incorporating application intention as an antecedent variable, the configuration analysis was repeated with six antecedent variables—platform services, performance expectations, effort expectations, social impact, facilitating conditions, and adoption intention—and application behavior (high application behavior or non-high application behavior) as the outcome variable. Three configurational paths for high application behavior were identified, which were categorized according to shared core conditions, leading to the synthesis of three pathways to enhancing teachers' behavior regarding the application of the national platform.

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