

Strategies for Promoting Teacher Collaboration in an Information and Communication Technology (ICT) Network

Jittima Harmrattanakorn^a, Kriengsak Chareonwongsak^b

Senior Researcher of the Institute of Future Studies for Development (IFD)^a

Senior fellow, Harvard University, Chairman of Nation-Building Institute International (NBII)

ABSTRACT

During the COVID-19 pandemic, Thailand had to transition to fully online education, which led to challenges like teacher and student readiness and limited ICT infrastructure. This study aims to explore how ICT networks can improve teacher collaboration and teaching practices, addressing these challenges through shared knowledge and professional development. The effectiveness of various policy interventions aimed at enhancing teacher collaboration within an ICT network was evaluated using the theory of network effects. The interventions analyzed included reducing network access costs, incentivizing teacher participation, and increasing the perceived value of network access. The evaluation framework was based on a mathematical model. Simulation results demonstrate that while the establishment of the network generates significant net benefits, an initial small subsidy may be required to trigger network effects in the early stages. To reach a critical mass of collaborating teachers, the following policy recommendations are proposed: (1) temporarily reducing network access costs through subsidies targeted at a specified number of teachers; (2) encouraging the sharing of a larger volume of information among participants; (3) providing a substantial amount of shared information to incentivize teacher participation; and (4) reducing overall network access costs in the long term.

Keywords: Information and Communication Technology (ICT), network effect, collaboration, mathematically model