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CCAMTAC- Regional Research/Analytical Economic Policy Seminar

“Can Teachers Learn Online?”

Thursday, September 1, 2022

Introduction:

Norbert Funke, Director, CCAMTAC

Moderator:

Martin Fukac, Resident Advisor, CCAMTAC

Presenter:

Naneh Hovanessian, Senior Economist, Economic Research Department, Central Bank of Armenia

Discussant:

Antonio Bassanetti, Economist, Institute for Capacity Development, IMF

The COVID-19 pandemic has forced a shift from traditional face-to-face instruction to online learning. After two years of distance/virtual learning, the question of the effectiveness of such delivery modality became relevant, as in-person delivery is being resumed in many countries, but the option of online learning remains present. From a policy standpoint, gauging the effectiveness of remote learning is crucial for designing and implementing tailored policies in areas of academic and professional education.

Ms. Naneh Hovanessian presented the main findings of research by the Central Bank of Armenia on the effectiveness of online learning in the example of Armenian teachers participating in the Financial Education Program. The Program was designed to equip teachers with financial knowledge and skills so that they could then raise financial literacy among their students. The dataset for the research included both information covering the period of online learning during the COVID-19 pandemic and post-pandemic in-person training of teachers. The data included information on the assessment of financial literacy, implementation skills, and demographics (age, gender, household size, marital status, monthly household income, etc.).

According to the research, virtual training was less effective than conventional in-person training, however, the effect varied substantially for tasks of different complexity. Online instruction is essentially as good as in-person learning with respect to financial literacy knowledge, while it is much less effective when it comes to conveying teaching & implementation skills.



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Considering individual characteristics of teachers, the evidence that the results of the remote training are also significantly affected by the age, gender, size of the household, teachers' specialization (math vs. social sciences), and marital status, which implies that online training may work better for a particular group of individuals. Connection failures, household distractions, lack of social contact, and the presence of work duties were considered to be negatively affecting the overall remote learning experience. Analyzing the gains from training, the evidence suggested that teachers with poor baseline performance have benefited more from the training than those with higher baseline scores, catching up and compensating for initial differences in their abilities. As a result, the policy aiming at improving education should account for heterogeneity among the learners when considering online learning/training.

In his comments, IMF economist Mr. Antonio Bassanetti drew attention to the difference between prerecorded online courses and live remote learning and gave ideas of how the research could further investigate the heterogeneity of teachers in terms of their education, years of experience on the job, and individual incentives. Mr. Bassanetti also warned about possible confounding factors that might impact the outcome of the analysis and suggested considering issues such as the need of learning over time how to be effective in the new virtual environment (both for instructors and for learners), as well as the importance of introducing pedagogical adjustments to virtual courses (content, materials, class size, pace) in order to increase their effectiveness. In conclusion, it was pointed out that the research presented during the seminar was extremely relevant and timely, and provided several useful takeaways.

During the general discussion the questions to the presenter covered: (i) the possibility of COVID-19-related cognitive issues and anxiety affecting the results of online learning, (ii) the adjustment of learning materials to the delivery modality (iii) the impact of the gender gap on the online learning, and (iv) the differentiation between rural and urban teachers.

Aliya Kistaubayeva,
Economic Analyst, CCAMTAC