

A Randomized Evaluation of an On-Site Training for Kindergarten Teachers in Rural Thailand

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Research Question

- Research Question: Whether a hand-on on-site teacher training program developed from the well-proven program, HighScope, can be a teacher's professional development to improve child development effectively and scalably.

Details of the Program

- On-site training at the Center of RIECE, Roi-Et province.
- Training time is equally to 10 school days.
- For the first three day: Observing all class room activities and student behaviors in the center(?).
- The rest is to practice implementing all key activities
 - Plan-do-review process (PDR).
 - Discussion about how trainees performed for each activity.
- 37 teachers were trained in three separate rounds due to intensity of the training program.

Experimental Design

Unit of randomization: School level

Two experimental groups: Control and Treatment

- Control (36 schools with ... students): Teachers received two day in-class training.
- Treatment (28 schools with ... students): Teachers received two day in-class training + ten day on-site training.

Measurement Outcomes

- Cognitive skill:
 - Total cognitive skill: Mathematics (21) and Literacy (14)
 - Mathematics skill (21)
 - Literacy skill (14)
 - All measured as daily learning gain due to significant different school days among schools and between control and treatment schools.
- Fine motor?
- Working memory?

Results

- Significant impacts of the program on improving students' skills.
- Expected two main channels: Learning quality in the classroom and home environment.
- Only some learning quality in the classroom: Plan-do-review quality index (PDR) and overall-classroom quality index are the significant potential channels that would be the main causes to improve students' skills.
- School quality and management have no impact on students' skills.
- Home environment has no impact on students' skills.

Comments and Suggestions

- Is it possible to expand this program to cover many more schools?
Relatively low cost per student suggests that but if the program expanded, the cost per student is still the same?
- Did teachers in both control and treatment groups received other trainings from other sources during the experiment?

Comments and Suggestions

- School days for students was homogenous within school. Can researchers check the individual absent of each student? Teachers should have this information. This would improve precision of program evaluation and reduce (downward) bias of measurement.
- Does the number of sample have enough power? Researchers should report (if available) the power calculation.
 - Some variables that measured potential processes of the program to improve students' learning show positive impacts but not statistically significant even though they seem to be the possible channels to improve students skills. This may be the result of low power (too small sample size).

Comments and Suggestions

- Factors influenced students' learning:

Classroom level (Statistically significant)

- Pland-do-review quality index (PDR)
- Overall classroom quality index (Overall)

Teacher level (Statistically insignificant)

- Teacher-child interaction quality index (Interaction)
- Teacher-support quality index (Supporting)
- Teacher-preparation quality index (Preparation)

Some factors may overlap and provide similar impacts. For example, PDR and Preparation may be difficult to be isolated from each other.

Interaction and Supporting may be part of Overall unless it measured psychological quality of classrooms. Besides power issue (may or may not exist), the measurements of teacher level may not be well defined to capture these teacher level impacts even they were extensively focused during training and maybe extensively employed in the classes. (Variance of explanation in each factor)

Comments and Suggestions

- The program should be tested for at least one academic year.
- Does the program demands more significantly effort of teachers to employ this program to their classes? Even yes or no we need more study and time to track what would happen for teachers efforts especially if there is no incentive system to help encourage them.

Comments and Suggestions

- Is it possible to estimate impacts of the program on subgroups, i.e. students with higher initial skills vs students with lower initial skills?
- In case, there are more than one classes per school and not every teachers in the school received training. Are there any spillover effects within schools? If yes can reserachers idenitify or plan to identify the process?
- How many exactly number of school in the treatment group used as sample? My understanding is 28 and then reduced to 26 schools but some part in the paper showed 21 schools.
- For estimation in school level (observation unit is school), how standard errors were clustered?

Q & A