LEVERAGING THE ROLE OF MATHEMATICS TEACHING COORDINATORS TO LEAD EFFECTIVE PD FOR TEACHERS

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Effective, scalable, and sustainable professional development (PD) programs for teachers aim to improve teaching quality. Implementing PD in scale requires designated instructional materials, professional learning communities (PLCs) and systemic support, as well as the preparation of qualified PD leaders. The study relays on the effective PD model regarding the design features (Darling-Hammond et al., 2017), and the professional identity (PI) model regarding the teaching expertise (Beijaard et al., 2000), while elaborating it to suit PD leadership expertise.

The study explores a PD program that prepares mathematics teaching coordinators to apply effective PD at PLCs within their school teams. COVID-19 emerged during the PD program application, changing the program and teams' PD sessions from face-to-face (F2F) to online. We explored the PD program and school team's PD design before and during COVID-19 emergence, detecting effective PD features and orientation to support and demonstration of PD leadership expertise.

Participants were 29 coordinators and 86 teachers. Research tools include qualitative inquiry of the PD design and PD leadership expertise, through observations and reflective questionnaires in both samples, and a quantitative (pre-and-post) questionnaires to measure the coordinators' perceived PD leadership expertise.

Findings revealed that the program preserved diverse effective PD design targeted to support PD leadership expertise before and during the COVID-19 period. Coordinators applied mainly content focused PD in both periods, more intensely in the online period demonstrating didactical (32% vs. 17%) and subject matter (16% vs. 7%) expertise. In the F2F period they applied more expert support (23% vs. 11%), and collaboration (17% vs. 11%) as pedagogical expertise. Despite the program support and continuous team PD even during a crisis, the coordinators rated their subject matter (T(28) =2.30, p< .05) and didactical expertise (T(28) =5.37, p< .001) as lower compared to the program support. The study connects effective PD and teachers' PI theoretical models and suggests an effective and sustainable PD for teachers which is applicable in scale.

References

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Darling-Hammond, L., Hyler, M. E., & Gardner, M. (2017). *Effective teacher professional development*. Palo Alto, CA.