

Evaluating the impact of teacher PD through teacher self-reports and student perceptions

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Prior studies suggest that substantial investments in professional development (PD) are well motivated (Allen et al., 2011; Chetty et al., 2014; Hanushek, 2011). According to reviews and meta-reviews, there is a consensus that effective PD should be fueled by external expertise, practice-based, self-selected, sustained, collaborative, and subject specific (Cordingley et al., 2015; Dunst et al., 2015). Yet to evaluate the impact of composite initiatives is a complicated matter (Sims & Fletcher-Wood, 2021), especially in a Nordic educational context where established PD infrastructure is rare, and sustained, and completed, PD modules are often small-scaled (Prøitz et al., 2022; Ryve et al., 2016).

This paper reports an attempt to evaluate the impact of a PD program designed according to abovementioned criteria of effectiveness (Tengberg et al., 2022). The purpose, however, is not to report data on effects, but rather to use the collected data to address methodological challenges. In the program, 45 Swedish language arts teachers were gradually introduced to six elements from The Protocol of Language Arts Teaching Observation (PLATO, Grossman, 2015), they were videotaped and observed in their classrooms, received PLATO-based feedback, and reflected on their gradual progress in local groups. Because classroom observations are costly, time-consuming, and would in this case be inappropriate as measure of improvement, impact of the intervention was estimated by teacher self-reports and student perceptions post intervention. While both of these provide a form of first-hand experience of the assumed improved practice, they also have apparent disadvantages. Teacher self-reports might for several reasons, although unintentionally, exaggerate the extent of

change in practice (Goe et al., 2008; Tengberg, 2022). Student perceptions by well-designed survey items have been suggested to provide reliable measure of teaching quality (van der Lans, 2018; van der Scheer et al., 2019), but the extent to which students' perception of practice align with theoretically defined constructs of presumed improvement is unclear (Fauth et al., 2014; Maulana & Helms-Lorenz, 2016).

Findings of the study revealed that a majority of the teachers reported that the intervention had a sustained effect on their practice, and that their teaching had improved as defined by the target PLATO variables. As an example, 82% agree or strongly agree that their students receive more qualified feedback on their work after the program than they did before. Consistent with those reports, student survey responses indicated that these practices were indeed generally frequent in the intervention classrooms. However, students in a control group, who were at the same schools but whose teachers had not participated in the intervention, reported similar, or in some cases higher, levels of the target practices. Reservations should be made for the fact that the control group was small, but the findings still raise the question about what an appropriate measure of PD effect is.

Discussion points of relevance include the reliability of teacher self-reports, the inappropriateness of observation, and scale properties and timing of student surveys. The discussion also provides some non-quantitative but highly significant alternative evidence of impact.