How Does Professional Development Improve Teaching?

Purpose: The research examines experimental studies of professional development carried out in K-12 general education within the United States published since 1975, and through within-study syntheses.

Research Questions: The following research questions guided the research synthesis: (1) how did professional development improve teaching; (2) what studies were the most effective at leading to teacher change; and (3) what can the field learn about professional development from the literature?

Research Methods: The researcher defined criteria to identify studies to include in the synthesis: studies about professional development only, evidence of student achievement included, designed controls for motivation to learn, lasted at least one year, and followed teachers over time, rather than students. Through this process, the researcher yielded 28 studies that fit the criteria. The researcher divided the studies into three different groups: (1) student-level data; (2) classroom-level data; and (3) hierarchical data. Rather than comparing studies to one another by conducting a formal meta-analysis, the researcher conducted within study syntheses for every subgroup of students, and every outcome measure, and averaged them together to produce an average outcome for each study.

Findings: Programs that focused exclusively on content knowledge tended to have less effect on student learning. Program intensity—sometimes referring to the total amount of contact hours with teachers, the total span of time of the professional development, or the volume of information transmitted—appears to be less effective when combined with prescriptive messages but more effective when messages provide strategies or insights. The effective programs reviewed were offered by individuals or groups who were very familiar with teachers and with the problems they face, and based their programs on their own experience and expertise. Many of the less effective programs were large-scale programs that relied on intermediaries—coaches or small group facilitators who were hired specifically for the study, and whose familiarity with teaching, or more importantly, with teacher learning, may have been limited.

Implications: This study suggests that professional development programs must center their work towards the specific problems that teachers themselves are facing in the classroom. Rather than developing professional development around a particular topic or with a specific focus just because it is something new, or innovative, instead, the content of the professional development must be centered in the problems that teachers face and solutions geared towards practicality and usability.