

Design-Centered Research-Practice Partnerships as a Means to Promote Multidimensional Transfer among In-Service Teachers

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Abstract: One of the important outcomes of Research-Practice-Partnerships (RPPs) is the development of an infrastructure that enables professional learning communities to sustain their designed innovations over time. Using a design-centric model of RPPs, this research uses ethnographic methods to characterize such partnerships, and assesses the level of transfer on various dimensions in pedagogical field application, as well as changes in participants' perceptions and sociocultural changes to indicate how they apply their new knowledge in different domains.

Research rational

This research examines a special model of Research-Practice-Partnerships (RPPs) between schools and academia, with the goal of promoting pedagogical change and sustaining these innovations over time. Although there is emerging scientific knowledge about the use of RPPs in education, there is scarce knowledge about the impact and outcomes of these collaborations (Fishman et al., 2013; Kali et al., 2018). One of the important outcomes of RPPs is the development of an infrastructure that enables the school to sustain the designed innovation over time. To understand the impact of these RPPs, this research is organized into two stages. The first stage focuses on deepening the understanding of the nature of the RPPs, by characterizing them by means of interactions within each partnership, participants' considerations, dynamics, and their ongoing and changing perceptions of the partnership. This stage is based on Kali et al.'s (2018) model of a design-centric RPP (DC-RPP) approach, which identifies two lenses: one lens which focuses on RPPs in the context of full-school pedagogical change; and the second lens which focuses on a specific discipline, evolving and progressing into innovative course designs. The second stage of this research examines the way educators develop knowledge during RPPs and apply it in different contexts. This stage is based on Dori and Sasson's (2013) transfer model, which evaluates whether and how innovative knowledge is assimilated by educators so it can sustain over time. Therefore, assessment at this stage involves levels of transfer on various dimensions, in pedagogical field application, as well as changes in participants' perceptions and possible sociocultural changes to indicate how they apply their new knowledge in different domains. Understanding similarities and differences of DC-RPPs between the two lenses and then assessing for sustainability of the innovative knowledge acquired during the DC-RPP is vital to better understand the mechanisms underlying effective RPPs, which is the aim of this research.

Background

Professional learning communities and RPP models

Pedagogical changes within schools can be incredibly complex, and there is a need to adjust to the specific needs found within the local context of the school itself (Fishman et al., 2013). One common model for leading school pedagogical change is by building professional learning communities (PLCs). Teachers in PLCs seek continuous improvement as they tentatively explore new ideas and concepts to build shared knowledge (Hod, Bielaczyc, & Ben-Zvi, 2018). In recent years, RPPs have emerged alongside PLCs to promote pedagogical changes in schools and advance research (Coburn & Penuel, 2016). Since partnerships between educational researchers and educators involves participants from varied professional backgrounds with different vocabularies, work practices, and communication structures, developing productive partnerships requires special attention (McKenney & Brand-Gruwel, 2018). Structuring the partnership with clear roles and norms is important to forge trusting relationships, a process which involves effective communication and shared meaning making between the participants (Kali et al., 2018). Scholars have identified different research traditions relevant to RPPs, one of which is the design-based implementation research approach, which examines how interventions are effectively implemented in a broader environment by doing research *with* the teachers rather than *for* the teachers (Fishman et al., 2013). Drawing on this idea, Kali et al.'s (2018) notion of DC-RPPs focuses on the development of the RPP design, with an emphasis on a recognized theory or approach and by paying attention to the dynamics of the partnership, along with the intention that the school staff to sustain the innovation over time (Kali et al., 2018). This model relies on a theory-

practice matrix which produces design principles to guide a productive and innovative process, by overlapping theory lenses with practical constructs. This model can be assimilated in either of the RPP lenses, whether it involves an entire school vying to make a wide-ranging pedagogical transformation, or in the case of designing specific courses in a particular discipline. A powerful tool for assessing continuous improvement and successful assimilation of pedagogical changes within school is to measure transfer skills multidimensionality among practitioners (Dori & Sasson, 2013), as well as to accompany the course of the pedagogical change by ongoing assessment and evaluation processes (Sasson & Dori, 2012).

Measuring sustainability of DC-RPPs through transfer skills

The acquisition of knowledge in one context, internalized through practice and finally applied to a new context, is defined as the transfer of learning (Dori & Sasson, 2013). According to Dori and Sasson (2013), transfer has various dimensions within the categories such as task distance, interdisciplinarity, and skill set. It is therefore of great importance to measure the level of transfer multidimensionally to evaluate educational success. Hence, an assessment process based on transfer that follows the formation and activity of PLCs during pedagogical changes within schools can be of great value to determine the outcomes of DC-RPPs (Akkerman & Bruining, 2016).

Research questions and method

The questions motivating this research include: (a) What are the characteristics of the ways that DC-RPP-based PLCs develop? (b) To what degree and in what ways do the DC-RPPs enhance and contribute to transfer skills among participating teachers so they will be sustainable over time? To answer these questions, I am examining similarities and differences in a multi-dimensional comparison between two settings of RPPs: i) a structured whole-school pedagogical change; and ii) a specific innovative design within a school framework. Each RPP setting is composed of 3-5 schools, of whom the participants are educators and researchers from academic institutions. This research uses an evidence-based, mixed-methods research and analysis approach, integrating both qualitative and quantitative data from interviews, questionnaires, and observations.

Expected contribution

Most research on RPPs emphasizes the interventions developed during the partnerships rather than investigating the impact of the partnership outcomes over time (Coburn & Penuel, 2016). The overall goal at the end of the partnership process is to reach the continuation of the school's generative process independently and in accordance with its vision. Since intra-school and regulatory characteristics create a dynamic school agenda, examining pedagogical changes over time and measuring their sustainability is possible by assessing transfer skills among teachers. Therefore, this research could shed light on this vital facet of RPPs, adding new knowledge to the ways they play out as well as how to measure the effectiveness of different approaches.

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