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Testing a Model of Effective Teacher Learning

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Background

In order to understand teachers' learning and the effectiveness of teacher learning activities, we developed a model of teacher learning that includes the features of professional learning activities as experienced by teachers and then considered how this learning opportunity was mediated by participants' own learning values, their current teaching practices, and the context and conditions of their school that afforded or impeded their learning. The model is the focus of paper 3 of this symposium.

Research Questions

The purpose of this paper is to present the results of an analysis that tests the integrated model of effective teacher learning elaborated in paper 3 of this symposium.

Methods

The paper relies on the national survey data collected from teachers and school leaders in England as part of the State of the Nation CPD research undertaken during 2007-2008. To test the model we used Structural Equation Modeling (SEM). SEM is an analysis technique for testing and estimating causal relationships using a combination of statistical data and qualitative causal assumptions.

Frame

SEM is particularly suited to theory testing. Among SEMs strengths is the ability to model constructs as latent variables (variables which are not measured directly, but are estimated in the model from measured variables which are assumed to 'tap into' the latent variables). This was particularly important in testing an integrated model of teacher professional learning. For example, while our survey instruments measured the forms of teacher learning as recommended by Desimone (2009), individually each of the elements of form do not contribute significantly to effectiveness of teacher learning. It is only collectively, when treated as a latent variable (or factor), that they become significantly associated with effectiveness outcomes such as changes in belief, knowledge or teaching practice.

Research findings

Our final analysis, relying on SEM to test our model of teacher learning is not yet complete. However, we have conducted a series of analyses of our data that provide some initial results. Unsurprisingly, teachers in England do not participate in learning activities that have the characteristics typically associated with effectiveness. That is, they tend to participate in activities that are short in duration, passive, lack coherence and rarely involve colleagues. However, one of the things that is clear from our study is that this is not a conscious choice by teachers - teachers participate in what they are offered and what they are offered is of poor quality. A number of individual factors and organizational conditions (factors) have emerged in our analysis to help us understand why this occurs. For example, school organizational conditions such as performance management practices, clarity of school vision, the presence of social capital, and organizational support for collaboration and experimentation are all significantly correlated with both forms of teacher learning and the effectiveness of teacher learning. Likewise, individual characteristics such as the value placed on experimentation, a teacher's research orientation and their willingness to participate in collaborative, classroom-based learning are also significantly associated with both forms and effectiveness of

teacher learning. In an initial regression analysis of the roles of forms of learning, the organizational factors, and the individual factors, in the effectiveness of teacher learning (as defined by teacher reports of change in knowledge, belief, or practice), organizational and individual factors contributed significantly more to effectiveness than did the forms of learning (although the 'effective' forms were still significant). Thus, we have some early indication that the conditions and contexts of learning may be more important than 'what' or 'how' teachers learn and may in fact be a strong determinate of 'how' teachers learn. Our SEM analysis will hopefully clarify these findings.