



The Influence of Rural Professional Development Characteristics on Teacher Perceived Knowledge and Practice

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Background and Purpose

High quality professional development is critical in providing teachers with the necessary knowledge and skills to meet students' educational needs. Unfortunately, very little is known about the current state or impact of professional development in rural schools, or differences in professional development experiences between rural and non-rural school teachers. The purpose of this survey study was to examine (a) differences in professional development (PD) for rural and non-rural teachers and (b) the potential influence of PD characteristics (e.g., the format, duration, subject matter focus, opportunities for collaboration) on rural teachers' knowledge, perceptions, and classroom practices.

Research Process/Procedures

Participants/Setting. Survey respondents included 268 rural and 327 non-rural teachers from 43 U.S. states. Teachers' schools were classified as rural or non-rural based on definitions established by the National Center for Education Statistics that take into account a school's location relative to urbanized areas and clusters.

Procedures and measures. Participants received a survey that included a demographic questionnaire followed by questions about their best PD experience in one of four specified content areas (reading, math, science, and data-based decision making). In considering their best PD experience, the teachers were asked to indicate its format (i.e. workshop, college course), leader, delivery approach (live, distance), and opportunities for interaction/collaboration with colleagues. The teachers were also provided with a list of possible topical foci for the PD and were asked to rate the degree to which each topic was included in the PD, the topic's importance, the extent to which the topic was a focus of their practice, and the degree to which their knowledge improved. In addition, teachers were asked to complete an assessment of instructional content knowledge.

Results

There were many similarities between rural and non-rural teachers with respect to the characteristics of their PD. Overall, despite perceptions about rural teachers' limited access to PD, the rural teachers did not seem to be disadvantaged, at least in considering their best PD experiences. Significant differences were found in the PD format, with a larger proportion of rural teachers reporting participation in a single workshop/institute or workshops/institutes with follow up coaching; larger proportions of non-rural teachers reported that (a) their best PD experience was a college course and (b) PD involved a mentor, coach, lead teacher, or observer. A larger percentage of rural teachers reported that peer interaction and collaboration occurred as part of their professional development experience. There were no significant differences between rural and non-rural teachers with respect to content knowledge, perceived utility of topics covered in the professional development, or perceived enhancement of content knowledge as a result of their PD.

A path model was developed which isolated important relationships among professional development characteristics, teachers' knowledge, perceptions, and practice. An emphasis on select topics during PD was related to (a) increased perceptions of the utility of those topics, (b) increased perceptions of knowledge gained pertaining to those topics, and (c) an increased focus on those topics during classroom instruction.

Findings suggest that professional development influences teacher perceptions and practices and that by focusing on specific instructional topics during PD, educators may be able to increase (a) perceptions about topic utility and (b) their classroom practice.

Research Challenges and Opportunities

Our experience with educational research in rural areas suggests some advantages in working with rural populations. First, we have found rural school districts to be cooperative and eager for professional development opportunities, with interest in the research base and process. We have also found it important to establish relationships with local district and regional service unit leadership, who can greatly facilitate the acceptance and successful implementation of PD and accompanying research.

A major challenge for this project was the lack of research regarding rural professional development, providing limited empirical background. The small sample sizes for rural teacher populations also impacted sampling methodologies, participant recruitment, and statistical analysis. The sample sizes required use of appropriate statistical methods, including alternative methods for estimation.

Future Research

Results from this survey and correlational study do not imply cause-and-effect relationships. Future experimental research is required to make causal claims. In addition to exploring teacher perceptions, future research should directly examine the impact of PD characteristics on teacher knowledge, practice, and student outcomes. The impact on students is critically important; there is a paucity of high quality research documenting the effect of PD on student achievement (Yoon, Duncan, Lee, Scarloss, & Shapley, 2007). Also, focusing on select PD topical areas and requesting that teachers provide information about their *best* PD experiences limits the generalizability of study findings. Additional research with a broader focus will help provide additional information about the current state of affairs in rural PD and how it might be improved.

References

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