

EXECUTIVE SUMMARY

By Dr. David Hough, Project Investigator

OVERVIEW

This is the third and final year of a three-year longitudinal study of the Regional Professional Development Centers in Missouri. The 1999-2000 study utilized descriptive data to examine the extent to which the RPDCs were being accessed by schools throughout the State. The 2000-2001 study examined the relationship between schools identified as “high” and “low” professional development sites and student achievement. This year’s study combines the two previous years’ approaches and examines characteristics associated with “high” and “low” professional development sites and their relationship to student achievement as measured by the Missouri Assessment Program (MAP).

Factor analytic techniques applied to all three years’ data produced highly reliable scales for identifying and labeling “high” or “low” professional development schools. Discriminant analysis techniques enabled the researchers to both describe and classify schools. Analysis of Variance techniques were used to examine the relationship between these sites and student achievement as well as their association to the RPDCs, i.e., the relationship between the RPDCs and schools labeled as “high” and “low” professional development sites.

Caution should always be observed when making generalizations about the relationship of student achievement and a school’s level of involvement in professional development. Not all schools designated at “high” PD sites outscored their “low” PD site counterparts on the MAP. In addition, variables such as per pupil expenditures, socio-economic status, attendance rates, geographic location, and school / district size (as well as other variables not identified here) must be considered when making generalizations about the impact of professional development on student achievement.

METHODOLOGY

All three years’ data collection techniques utilized focus group interviews, survey questionnaires, and unobtrusive examination of documents. This year, however, a state-wide random sample of 500 schools was selected, stratifying on geographic location (the nine RPDC regional boundaries) and school grade levels.

Survey questionnaires were mailed to principals at each of these schools. After receiving 255 questionnaires from these principals, schools were classified as elementary and secondary and rank ordered from highest to lowest based on the overall mean scores of questions concerning each school’s level of involvement in professional development. One hundred schools with the highest grand means and 100 schools with the lowest grand means were labeled “high” and “low” professional development sites, respectively, and used for further analyses. Questionnaires were then mailed to teachers included in this sample. The final, usable sample (n = 128) included only those schools from which a 40% or higher return rate from teachers was achieved. This produced 65 “high” (33 elementary and 32 secondary) and 63 “low” (30 elementary and 33 secondary) sites. Telephone calls were then made to the principals at each of these schools to validate each school’s classification.

The following CORE data were downloaded from the DESE web site: MAP, school demographics, and MSIP Additive Scales. All data were entered into SPSS PC+ for analyses. As in the two previous years, one focus group interview with teachers and administrators was conducted in each of the nine RPDC regions. Two additional focus group interviews were conducted at two of the three national professional development award winning schools. A focus group had been conducted at the third school in the previous year's study.

MAJOR FINDINGS

- **Finding #1: PD and Student Achievement**

On average, schools identified as “high” professional development sites had higher percentages of students scoring at the proficient and advanced levels on both the Communication Arts and Mathematics sections of the MAP, regardless of grade level, elementary or secondary. Tables 30a, 30b and 31 along with Figures 30a-30d and 31a-b display these data graphically (see pages 99-103).

- **Finding #2: School Involvement with RPDCs**

On average, schools identified as “high” professional development sites also had a higher percentage of principals defining their school's involvement with the RPDC as “active.” Table 32a and 32b with Figures 32a and 32b show these data (see pages 105-106).

- **Finding #3: RPDCs and Student Achievement**

No direct relationship between schools' levels of involvement with the RPDCs and student achievement was determined.

- **Finding #4: PD and School Environment**

On average, parents and faculty from schools labeled “high” professional development sites on the MSIP Additive Scales regarding the learning environment rated their schools higher than did parents and faculty from “low” professional development sites. Table 17 and Figures 17a, 17b, 17c display these data (see pages 62-63).

- **Finding #5: PD and School Demographics**

No statistically significant differences existed between “high” and “low” sites in terms of student ethnicity, percent of students receiving free and reduced lunches, and average daily attendance. Table 16 and Figures 16a, 16b, 16c show these data graphically (see pages 59-60).

- **Finding #6: Validating Level of PD Engagement**

Principals and teachers generally agree on their school's level of professional development involvement; however, principals generally rate their school's involvement higher than do teachers.