DOCUMENT RESUME

ED 449 192 TM 032 300

AUTHOR Cowley, Kimberly S.
TITLE Evaluating the Effectiveness of a Technical Assistance System To Build the Organizational Capacity of a High-Need School District: One Piece of the Puzzle.
INSTITUTION AEL, Inc., Charleston, WV.
SPONS AGENCY Office of Educational Research and Improvement (ED), Washington, DC.
PUB DATE 2000-11-00
NOTE 17p.; Paper presented at the Annual Conference of the American Evaluation Association (Honolulu, HI, November 1-5, 2000).
CONTRACT RJ96006001
PUB TYPE Reports - Research (143) -- Speeches/Meeting Papers (150)
EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Decision Making; Delivery Systems; Elementary Secondary Education; Organizational Climate; *Organizational Effectiveness; Pretests Posttests; Program Evaluation; Rural Schools; *School Districts; Teacher Empowerment; Teacher Surveys; *Teachers; *Technical Assistance

ABSTRACT

As part of a project to learn more about the technical assistance process of helping high needs schools to develop the organizational capacity to support effective school performance, this study examined changes after two years of technical assistance delivery in a high needs school district. The district was in a rural area with one elementary school, one middle school, and one high school. Three instruments were selected to measure the construct of organizational capacity, and these surveys were administered to district faculty members in the 1996-1997 school year (pretest). The instruments included a measure of school participant empowerment, school professional community, and perceived organizational effectiveness. This paper summarizes findings from the posttest in 1999 in which the same 3 instruments were administered to 80 teachers to measure changes. The high school teachers' improved scores in decision making, self-efficacy, status, and impact suggest that improved conditions and practices at the high school resulted in a heightened sense of empowerment. Other differences among teachers at the three levels are discussed. As a whole, the district appears to have expanded its organizational capacity in teacher empowerment but made minimal progress in creating sustainable professional learning and increasing organizational effectiveness. Recommendations are made to improve these two areas of practice. (Contains 3 figures and 12 references.) (SLD)

Evaluating the Effectiveness of a Technical Assistance System to Build the Organizational Capacity of a High-Need School District: One Piece of the Puzzle

Kimberly S. Cowley
AEL, Inc.

Paper presented at the Annual Conference of the American Evaluation Association, November 2000, Honolulu, HI

AEL's mission is to link the knowledge from research with the wisdom from practice to improve teaching and learning. AEL serves as the Regional Educational Laboratory for Kentucky, Tennessee, Virginia, and West Virginia. For these same four states, it operates both a Regional Technology in Education Consortium and the Eisenhower Regional Consortium for Mathematics and Science Education. In addition, it serves as the Region IV Comprehensive Center and operates the ERIC Clearinghouse on Rural Education and Small Schools.

Information about AEL projects, programs, and services is available by writing or calling AEL.

Post Office Box 1348
Charleston, West Virginia 25325-1348
304-347-0400
800-624-9120
304-347-0487 (fax)
aelinfo@ael.org
http://www.ael.org

This publication is based on work sponsored wholly or in part by the Office of Educational Research and Improvement, U.S. Department of Education, under contract number RJ96006001. Its contents do not necessarily reflect the views of OERI, the Department, or any other agency of the U.S. government.

INTRODUCTION

During the past decade, the Commonwealth of Virginia has taken significant steps to measure and increase student achievement by implementing the Standards of Learning (SOLs). However, several school districts across the state did not have the capacity to meet new content and performance standards. AEL, Inc., is assisting Virginia by conducting research to better understand the process of providing technical assistance to high-need schools.

In 1996, AEL project staff collaborated with the Virginia Department of Education to identify and select a high-need school district willing to serve as a development site where elements of a technical assistance system to improve students' academic performance could be devised and tested (Nilsen, 1999). The overarching purpose of this project is to learn more about the technical assistance process of assisting high-need schools to develop the organizational capacity to support effective school performance and to enhance the intellectual quality of student learning (AEL, 1998).

High-need schools were defined as those in which the initial pass rate on Virginia's Literacy Passport Test (LPT) fell below 50%, and which met certain other socio-demographic criteria. Schools unlikely to pass the LPT were located in rural regions with high poverty levels (22% of children), low educational attainment of adults (48% lacking high school equivalency), and almost twice as many children (7% versus 4%) identified as "at risk" (defined by the National Center for Education Statistics as living in a single-parent household in which the adult lacks a high school diploma and has an income below the poverty line) (as cited in AEL, 1995).

The "Rural County Public Schools*" (RCPS), located in south central Virginia, met the selection criteria of a high-need school district and was willing to work with AEL on this project. The three public schools in the county include an elementary school, a middle school, and a high school, with a total student enrollment of approximately 1,300 and approximately 100 certified staff.

AEL staff are collaborating with RCPS in developing and testing a technical assistance model that builds local capacity to support continuous improvement in student performance. Most of the work to date has addressed curriculum alignment with classroom instruction and the Standards of Learning. David Squires, a consultant from Yale University, worked with RCPS during 1997-98 on aligning the English curriculum and during 1998-99 on aligning the mathematics curriculum.

Since the 1996-97 survey administration, RCPS schools have experienced changes that may have impacted school improvement. In particular, there has been a 35% faculty turnover in the past two years, and a change in leadership at the high school. As well, project activities have been designed and implemented in the interim. Project staff have provided 16 days of staff development, sponsored RCPS staff attendance at a conference on professional communities, and delivered other technical assistance support as requested. School staff have aligned and balanced both the language

---

*In order to maintain confidentiality, a pseudonym is used for the high-need school district.

arts and mathematics curricula. Project staff have participated in meetings, interviews, conference calls, and classroom observations in their attempts to help RCPS staff improve their organizational capacity. Electronic curriculum databases have been developed and are now in use.

In collaboration with the Virginia Department of Education staff, AEL project and evaluation staff selected three instruments to measure the construct of "organizational capacity." These surveys were administered to RCPS faculty members during the 1996-97 school year. The pretest results provided a baseline description of the three schools before intensive site work began (Nilsen, 1999).

The 12 dimensions measured by the instruments focus on the capacity of the organization to engage in improvement initiatives and attributes that schools must possess to improve student achieve-ment and sustain continuous improvement. Project staff hypothesized that the schools' culture would need to change dramatically in order to gain the organizational capacity to initiate and sustain continuous improvement at the conclusion of the project. Teachers would need to be empowered to make decisions about teaching and learning, and schools would need structures to support professional learning communities in order for teachers to develop perceptions of their schools as effective.

As a posttest, the three instruments were administered again in 1999 to measure changes after two years of technical assistance delivery. This paper summarizes findings from that posttest. For a copy of the full report, see *Evaluation of a High Need School District's Organizational Capacity for Change* by Kimberly S. Cowley, Kristine L. Nilsen, and Patricia E. Ceperley, January 2000.

METHODOLOGY

Description of the Population

The three RCPS schools included an elementary school (preK through grade 5), a middle school (grades 6 through 8), and a high school (grades 9 through 12). Not all staff members were housed in a single building; a number of specialty teachers and other certified staff worked across schools. All 89 of the staff members eligible to participate in this round of data collection (attendance one of the two staff meetings where surveys were administered) completed surveys. Of these 89, 7 were dropped from the final data set because the respondents worked in more than one school building, and 2 were dropped because respondents did not provide school-level information. The final number included in this analysis consists of 80 respondents (90% usable return rate): 70 classroom teachers, 3 Title I teachers, 2 guidance counselors, 1 department head/chair, 1 special education teacher, 1 resource teacher, and 2 respondents who did not provide their job titles.

Exactly half (40) of the respondents indicated they worked at the elementary school; the remainder were fairly equally distributed between the middle school (21, 26%) and the high school (19, 24%). The 80 respondents show a marked turnover rate for RCPS—almost half (34, 42%) indicated they were not working at their respective schools in April 1997 when the pretest was given. All but one (79, 99%) indicated they worked full time. Of the 67 respondents who provided the subject(s) they taught, almost a third (21, 31%) were teaching all subjects.

The majority of respondents (65, 81%) were female. Forty-one (51%) of the participants had a bachelors degree, followed by bachelors +15 units (13, 16%), masters (21, 26%), and masters +15 units (5, 6%). The respondents' ages ranged from 23 to 60 (standard deviation of 10 years), with an average age of 37; 50% of the respondents were at or below the age of 35.

Respondents had been teaching an average of 9 years (standard deviation of 8.8 years), with an average of 6 years at their current school (standard deviation of 6.7 years) and an average of 7 years in the RCPS district (standard deviation of 7.3 years). About half had been in the teaching profession for 5 years or less, and fewer than 20% had been teaching for 20 or more years.

Data Collection Instruments

In the 1997 pretest, three separate instruments were administered to the RCPS professional staff to collect valid and reliable information on teachers' impressions of the environment and effectiveness of the schools in which they worked. As a whole, the instruments provided a comprehensive baseline picture of the organizational capacity of the schools to engage in ongoing school improvement efforts to raise student achievement on the Virginia Standards of Learning. The three instruments included the "School Participant Empowerment Scale," the "School-Wide Professional Community Survey," and the "Index of Perceived Organizational Effectiveness."

One caution should be noted about the use of these instruments. While content validity has clearly been established through previous research, the surveys are not without inherent problems. Namely, meta-analysis of the pretest report found that "two serious deficiencies or errors often found in survey research were prevalent with the instruments" (Western Michigan University, 2000, p. 59). These errors included several multiple-concept items and several items with inappropriate response options. But, report author William Wiersma concluded that "because the basic content of the items had content validity, it can be inferred that validity of the data was adequate" (p. 62).

In an effort to streamline the data collection for the posttest administration, the three surveys were combined into "The Teacher, School, and School Organization Questionnaire." This combined survey was six pages in length, and eliminated superfluous paperwork and repetitive demographic questions. Otherwise, the survey contained the same information as the original three surveys. Demographic questions retained included role, subjects taught, school level taught, full or part time, years taught at current school, years taught in district, total years teaching experience, educational attainment, gender, and age. Specific information on each of the three surveys is presented next.

School Participant Empowerment Scale (SPES). The 38-item SPES survey was developed by Short and Rinehart in 1992 with a small sample of teachers at one grade level. In 1995, Klecker and Loadman (1996) used the instrument with a large sample of teachers (4,091) from 183 Ohio schools. They re-factored the original instrument into six differently-named factors, which were used in this report: (1) Decision Making, (2) Status with Colleagues, (3) Professional Growth, (4) Self-Efficacy, (5) Autonomy in Scheduling, and (6) Impact. The response options on the SPES were presented as a 5-point Likert-type scale of 1 (Strongly Disagree) to 5 (Strongly Agree). In prior AEL research, the Professional Growth subscale had unsatisfactory reliability scores; therefore, the lowest item was deleted and two new items were added (Meehan & Cowley, 1998). As a result, both the pretest and posttest versions of the SPES used in this project consisted of 39 items.

School-Wide Professional Community Survey (SWPC). This instrument was developed based on work and items published by Louis, Marks, and Kruse in 1996 on professional learning communities. Based on their paper, AEL staff developed a 22-item instrument with a 5-point Likert-type response scale of 1 (Strongly Disagree) to 5 (Strongly Agree) for each item. This survey included five subscales: (1) Shared Sense of Purpose, (2) Collaborative Activity, (3) Collective Focus on Student Learning, (4) Deprivatized Practice, and (5) Reflective Dialogue. Low subscale Alpha reliability estimates were found in prior research (Meehan & Cowley, 1998), so six new items were added in the pretest administration, making a total of 28. For the posttest, two additional items were added to the Deprivatized Practice subscale to differentiate between peer observations from within and outside the school, both as an observer and as an observee. Therefore, this posttest administration of the SWPC contained 30 items.

Index of Perceived Organizational Effectiveness (IPOE). This instrument, developed by Paul Mott (1972), measures school efficiency and effectiveness and the ability to innovate, adapt, and respond. This 8-item survey assesses five dimensions of organizational effectiveness: (1) quantity of product or service (i.e., lesson plans, curriculum, instruction, etc.); (2) quality of

product or service; (3) efficiency; (4) adaptability; and (5) flexibility. This instrument utilizes a 5-point Likert-type response option of 1 to 5 (a higher score indicates a higher perception of that item), yielding a total score ranging from 8 to 40 points. In previous research (Meehan & Cowley, 1998), high internal reliability estimates (.85 and above) were found.

Cronbach Alpha reliability estimates. Table 1 provides overall Cronbach Alpha reliability estimates (the degree to which items measure the same construct) for the obtained scores for each of the six SPES subscales. Two of the subscales had reliabilities in the .80s, one was in the .70s, and three were in the .60s (Decision Making and Impact at .67 and Professional Growth at .66). Overall, these reliabilities were very similar to those found in the pretest, with two subscales increasing slightly by .02 and four subscales decreasing by no more than .06. Table 1 also provides reliability estimates for the scores obtained by each school level. In general, the estimates for the secondary school scores were the highest, while those for the elementary school scores were the lowest. Of particular note are the differences between the reliabilities for the Decision Making and Impact subscale scores for the elementary and secondary schools.

Four of the five SWPC subscales had reliabilities at or above .80 (see Table 1); Collaborative Activity was the lowest at .71. Overall, these reliabilities were very similar to those found in the pretest, with two subscales increasing by .03 and .07 and three subscales decreasing by no more than .06. In general, the estimates for the middle school scores were the highest, while those for the elementary and secondary school scores were about equal. Of particular note is the difference between the reliabilities for the Collaborative Activity subscale scores for the elementary and middle schools.

The posttest administration of the IPOE total score had an overall reliability estimate of .87 (see Table 1), slightly higher than the pretest (.84). The reliability estimate was highest for the middle school score and lowest for the secondary school score.

Data Collection Procedures

"The Teacher, School, and School Organization Questionnaire" (three surveys combined) was administered to professional staff members in April 1999. The survey was distributed at two staff meetings—one for elementary faculty and one for the middle and high school faculty. No follow-ups were conducted.

All 89 staff members who attended one of the two staff meetings where the surveys were administered completed the survey. Of these 89 surveys, 80 were usable and comprise the final data set (usable return rate of 90%). Teachers were assured that their responses would remain anonymous and that results would be reported at the school level.

Table 1: Cronbach Alpha Reliability Estimates by Instrument

Instrument Name	Subscale Name	*n*	No. Items	Overall Alpha	Elem. Alpha	Mid. Alpha	Sec. Alpha
School Participant Empowerment Scale (SPES)	Decision Making	78	8	.67	.50	.66	.82
	Status with Colleagues	80	6	.76	.74	.69	.76
	Professional Growth	80	5	.66	.52	.76	.70
	Self-Efficacy	76	12	.89	.84	.89	.93
	Autonomy in Scheduling	80	3	.81	.76	.76	.83
	Impact	79	5	.67	.48	.71	.86
School-Wide Professional Community (SWPC)	Shared Sense of Purpose	79	5	.82	.77	.91	.77
	Collaborative Activity	76	6	.71	.54	.84	.82
	Collective Focus on Student Learning	80	6	.87	.73	.95	.69
	Deprivatized Practice	79	7	.80	.79	.82	.76
	Reflective Dialogue	77	6	.80	.78	.89	.74
Index of Perceived Organizational Effectiveness (IPOE)	Total Scale	77	8	.87	.85	.90	.66

Data Analyses

A database was created using SPSS Windows. Individual surveys were entered and the data file cleaned. Descriptive statistics are reported by individual schools at the subscale level only.

While this study involved a district population and not a random sample, the entire population was not included in the analyses and has changed considerably since the pretest. Therefore, inferential statistics were used to compare between and within group differences. One-way analyses of variance (ANOVA) were computed to compare subscale means among the three school levels at RCPS (elementary, middle, and high), using the Tukey post-hoc test for comparisons. Pearson correlations were produced to examine the relationships among the SPES and SWPC subscales and the IPOE total scale. Both Pearson and Spearman correlations were produced to examine possible relationships among the demographic variables and the three instruments. Independent samples *t* tests were computed to compare pre- and posttest findings. Matched pairs were not conducted since almost half of the respondents had started working at their respective school after the pretest administration. And, the focus of the comparison was on overall school readiness for improvement, not individual gains or losses. Only significant differences (Alpha level of .05 or less) are reported for these statistical procedures. Effect sizes, defined as "the *degree* to which the phenomenon is present in the population" (Cohen, 1977, p. 9) or an "indication for practical meaningfulness" (Fan, 1999) were also calculated for significant *t* tests and ANOVAs.

FINDINGS

Demographic Variables and Organizational Capacity

The first analysis looked at possible relationships among the demographic variables and the three major concepts that comprised organizational capacity: teacher empowerment, professional community, and school effectiveness. Very few demographic variables were associated with organizational capacity to a significant degree. Professional community scores showed a low positive correlation to the gender of the respondents ($r_s = .32, p < .01$), indicating a slight trend of higher scores for male respondents when compared with those for females. School effectiveness scores showed a low positive correlation to both the respondents' age and their years of total teaching experience ($r = .37, p < .01$; $r = .23, p < .05$). Older or more experienced teachers perceived their schools as being more effective than did younger or less experienced teachers. As well, the level of grades taught correlated positively with school effectiveness scores ($r_s = .33, p < .01$), with middle and high school teachers rating their schools as more effective than did their elementary counterparts.

Overall District Findings

This section presents summaries of significant findings and effect sizes by survey and correlations among the instruments and their subscales. See Table 2 for statistical detail by subscale, Table 3 for significant *t* tests by grade level and year, and Table 4 for significant ANOVAs by grade level. See Figures 1-3 for a visual depiction of all subscale means by a combination of year and grade level.

SPES. The SPES instrument showed four statistically significant subscale gains for the high school teachers from the 1997 pretest to the 1999 posttest: Decision Making, Status with Colleagues, Self-Efficacy, and Impact. These gains ranged from 0.32 for Self-Efficacy to 0.53 for Decision Making. Cohen's guidelines for interpreting effect sizes (1977) were used for defining the resulting effect sizes: small = 0.2, medium = 0.5, and large = 0.8. The Decision Making subscale gain (0.53) had an effect size of 1.29, well above Cohen's "large" descriptor; both the Self-Efficacy and Impact subscale gains (0.32 and 0.37, respectively) had large effect sizes, as well (0.86 and 0.82). The Status with Colleagues subscale gain (0.36) was of medium size (0.61). These effect sizes, combined with statistical significance, indicate that the subscale gains were not due to chance and that the magnitude of the gains was substantial.

The SPES instrument also showed three statistically significant differences among the 1999 schools. The high school teachers had a significantly higher score (3.61) than the elementary teachers (3.23) on the Decision Making subscale, with a small effect size of 0.31. Both the middle (4.17) and high school (4.16) teachers had significantly higher scores than the elementary teachers (3.83) for the Status with Colleagues subscale, with a small effect size of 0.39. And, the elementary

teachers had a significantly higher score (3.66) than both the middle (2.78) and high school (2.98) teachers for the Autonomy in Scheduling subscale, with a small effect size of 0.45. These effect sizes indicate that statistical significance was not accompanied by much practical meaningfulness or educational importance.

SWPC. The SWPC instrument did not show any statistically significant subscale gains for the elementary, middle, or high school teachers from the 1997 pretest to the 1999 posttest. Further, the instrument did not show any statistically significant differences among the 1999 schools.

IPOE. The IPOE instrument showed a statistically significant decrease (-3.63) for the middle school teachers' score from the 1997 pretest to the 1999 posttest, with a large effect size of 0.81, indicating that the decrease was not due to chance and the magnitude of the loss was substantial. (This decrease was the only significant decline for any of the groups across the three surveys.)

The IPOE instrument also showed a statistically significant difference among the 1999 schools. The high school teachers had a significantly higher score (27.67) than both the elementary (23.42) and middle school (23.81) teachers, with a small effect size of 0.39, again indicating that statistical significance was not accompanied by much practical meaningfulness or educational importance.

Correlations. When looking at the overall relationships among the three instruments for the posttest, the results show moderate positive correlations among the three measures ($p < .001$), all stronger than the pretest correlations. Although causal relationships cannot be ascertained, the data show a connection among empowerment, professional community, and perceived school effectiveness. These relationships support the concept of organizational capacity as an amalgamation of the three constructs.

When looking at the relationship among the SPES and SWPC subscales and the IPOE total scale, one salient finding is the number of process-oriented SPES and SWPC subscale variables positively correlated with the behavioral capacity IPOE variable of perceived school effectiveness. All but one of the subscales (Autonomy in Scheduling) had moderate to low positive significant relationships with the concept, indicating that perceived organizational effectiveness increased as other subscale values rose.

Table 2: 1999 Subscale Descriptive Statistics by Grade Level

Subscale	Level	*n*	Mean	Std. Dev.	Median	Skew
SPES Decision Making*	Elementary	40	3.23	0.41	3.25	-0.34
	Middle	21	3.38	0.52	3.38	0.66
	High	19	3.61	0.58	3.67	-0.73
SPES Status with Colleagues*	Elementary	40	3.83	0.42	4.00	-1.11
	Middle	21	4.17	0.42	4.00	0.42
	High	19	4.16	0.51	4.00	-0.09
SPES Professional Growth*	Elementary	40	4.30	0.35	4.20	0.02
	Middle	21	4.10	0.52	4.00	0.32
	High	19	4.27	0.46	4.40	-0.53
SPES Self-Efficacy*	Elementary	40	4.37	0.34	4.33	0.16
	Middle	21	4.13	0.45	4.00	-0.09
	High	19	4.27	0.42	4.25	0.04
SPES Autonomy in Scheduling*	Elementary	40	3.66	0.83	4.00	-0.41
	Middle	21	2.78	0.80	2.67	0.31
	High	19	2.98	1.05	3.00	-0.41
SPES Impact*	Elementary	40	3.62	0.46	3.60	-0.40
	Middle	21	3.77	0.53	3.80	0.03
	High	19	3.94	0.53	4.00	0.30
SWPC Shared Sense of Purpose*	Elementary	40	3.49	0.60	3.60	-0.18
	Middle	21	3.45	0.74	3.60	-1.15
	High	19	3.68	0.53	3.80	-1.11
SWPC Collaborative Activity*	Elementary	40	3.35	0.48	3.50	-0.59
	Middle	21	3.37	0.66	3.33	0.48
	High	19	3.32	0.55	3.33	0.39
SWPC Collective Focus on Student Learning*	Elementary	40	3.74	0.47	3.83	-0.80
	Middle	21	3.39	1.00	3.50	-0.82
	High	19	3.61	0.44	3.67	-0.52
SWPC Deprivatized Practice*	Elementary	40	2.53	0.77	2.33	-0.08
	Middle	21	2.68	0.74	3.00	-0.13
	High	19	2.77	0.74	3.00	-0.38
SWPC Reflective Dialogue*	Elementary	40	3.44	0.64	3.67	-0.31
	Middle	21	3.45	0.75	3.33	-0.30
	High	19	3.48	0.47	3.50	0.09
IPOE Total Score**	Elementary	38	23.42	4.54	24.00	-0.53
	Middle	21	23.81	5.24	26.00	-0.39
	High	18	27.67	2.57	27.50	0.65

*Range of 1 (Strongly Disagree) to 5 (Strongly Agree).

**Range of 8 to 40.

Table 3: Significant Independent Samples *t* Test Results by Grade Level and Year

Subscale	Level	Year	*n*	Mean	Std. Dev.	St.Er. Mean	*t* Value	*df*	Sig.	Score Diff.	Effect Size
SPES Dc.Mkg.	High	1999 1997	19 18	3.61 3.08	0.58 0.41	0.13 0.10	3.16	35	.003**	0.53	1.29
SPES Status	High	1999 1997	19 18	4.16 3.80	0.51 0.59	0.12 0.14	2.00	35	.053*	0.36	0.61
SPES Self-Eff.	High	1999 1997	19 18	4.27 3.95	0.42 0.37	0.10 0.09	2.46	35	.019*	0.32	0.86
SPES Impact	High	1999 1997	19 18	3.94 3.57	0.53 0.45	0.12 0.11	2.28	35	.029*	0.37	0.82
IPOE Total	Middle	1999 1997	21 18	23.81 27.44	5.24 4.50	1.14 1.06	-2.30	37	.027*	-3.63	0.81

*$p \leq .05$
**$p < .01$

Table 4: Significant ANOVA Results by Grade Level

Subscale	*df*	*F* Ratio	Sig.	Sig. Diff. by School Levels	Effect Size
SPES Decision Making	2, 77	3.97	.023*	High > Elementary	0.31
SPES Status with Colleagues	2, 77	5.66	.005**	Middle and High > Elementary	0.39
SPES Autonomy in Scheduling	2, 77	8.20	.001**	Elementary > Middle and High	0.45
IPOE Total Scale	2, 74	6.10	.004**	High > Elementary and Middle	0.39

*$p < .05$
**$p < .01$

Figure 1: SPES Subscale Means by Year and Grade Level

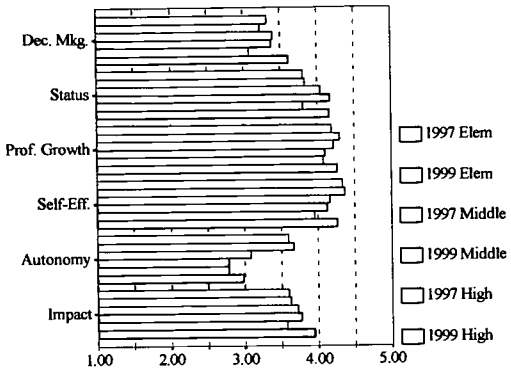


Figure 2: SWPC Subscale Means by Year and Grade Level

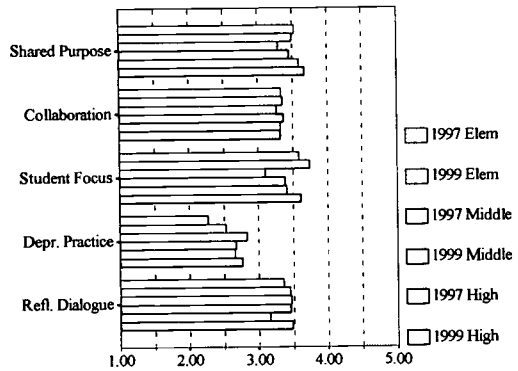
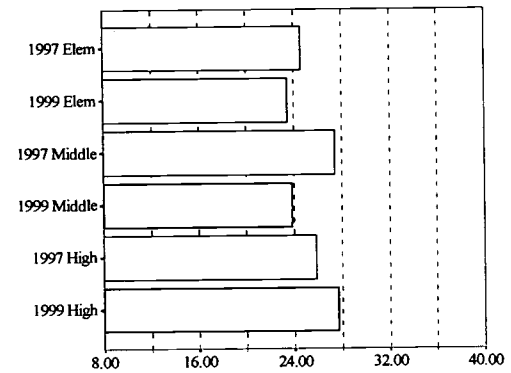


Figure 3: IPOE Total Scale Means by Year and Grade Level



CONCLUSIONS

Given the Cronbach alpha reliability estimates obtained for the overall posttest scores, we conclude there was satisfactory reliability in this administration of the three instruments.

Based on the high school teachers' increased scores in decision making, self-efficacy, status, and impact, we conclude that improved conditions and practices at the high school have led to a heightened sense of empowerment, recognizing that a change in leadership may also have influenced perceptions of empowerment.

Based on the slight fluctuations in teachers' mean scores from 1997 to 1999, it can be concluded that there was little measurable change in the area of professional learning community. Further, based on the consistent 1999 ratings by the elementary, middle, and high school teachers, we believe that a district-wide consensus of mediocrity exists in this area, which may be difficult to ameliorate given the high faculty turnover rate.

Based on the decline in middle school teachers' scores since 1997, we conclude that their views regarding their school's organizational effectiveness have become more discerning over the past two years. Possibly, as they became more aware of the elements that comprise organizational effectiveness, they developed a more realistic view of existing school conditions, resulting in a decreased score. Given the minimal changes in the elementary and high school teachers' scores from 1997 to 1999, we believe that their viewpoints remained constant over time.

Based on 1999 scores, we conclude that high school teachers perceived themselves to have greater decision-making authority than did the elementary teachers, both the middle and high school teachers had higher perceptions of status than did the elementary teachers, and the elementary teachers experienced more autonomy in scheduling than did either the middle or high school teachers. Furthermore, the high school teachers had higher (but still moderate) perceptions of their school's organizational effectiveness than did either the elementary or middle school teachers.

The lowest-scoring subscale in 1999 (and in 1997) was deprivatized practice; therefore, we conclude that this area merits further investigation of existing district conditions. The middle school teachers' declining score in this area further substantiates the need to identify barriers to teachers' use of shared-practice techniques such as peer coaching, team teaching, or classroom observations.

Given the instrumentation used in this study, we conclude that overall, since 1997, the RCPS district has expanded its organizational capacity by making concrete progress in the area of teacher empowerment and minimal progress in the areas of creating sustainable professional learning communities and increasing organizational effectiveness.

RECOMMENDATIONS

Staff need to examine district and school conditions that impede efforts to increase organizational effectiveness and decrease deprivatization of practice and then try to remove those hurdles in order to facilitate improvement and create a nonthreatening environment for teachers to engage in shared-practice techniques.

District and school conditions should be examined to identify barriers that seem to preclude creating a sustainable professional learning community.

Teachers should be involved in discussions about ways to retain staff and decrease the high turnover rate.

Administrators need to provide time and establish expectations for teachers to work together to make decisions about the K-12 curriculum and instruction.

Teachers need to ensure that they are teaching higher-level skills by incorporating these skills into the curriculum. Otherwise, it is unlikely that students will pass the Standards of Learning assessments and thus will not be prepared to enter the workforce of the 21st century.

Administrators should focus on developing opportunities for collaboration between themselves and teachers and on supporting teachers to collaborate with their peers within and among schools.

As the district responds to the state guidelines in order to maintain accreditation, teachers and administrators must develop the skill of collaborating with staff in other schools in order to offer students the types of activities and curriculum elements that will lead to successful performance on the Standards of Learning assessments.

School structures and processes that encourage teachers to share ideas and learn from one another are essential for building collaboration and need to be put in place.

Administrators should continue providing common planning periods for teachers and ensuring use of that time for collaboration on grade-level instructional themes, activities, and lesson plans.

Administrators and others need to lead teachers toward a collective focus on student learning.

Teachers need more time to spend together discussing the improvement of teaching and learning in their respective schools.

Staff need to be involved in articulating the shared beliefs, goals, and values of the district as a whole and of the individual schools.

REFERENCES

AEL. (1995). *Technical proposal for operation of the Regional Educational Laboratory in the Appalachian region for 1996-2000.* Charleston, WV: Author.

AEL. (1998). *1999 updated annual plan and budget.* Submitted to the Office of Educational Research and Improvement, U.S. Department of Education. Charleston, WV: Author.

Cohen, J. (1977). *Statistical power analysis for the behavioral sciences.* New York: Academic Press.

Cowley, K. S., Nilsen, K. L., & Ceperley, P. E. (2000). *Evaluation of a high-need school district's organizational capacity for change.* Charleston, WV: AEL.

Fan, X. (1999). *Statistical significance and effect size: Two sides of a coin.* Paper presented at the annual meeting of the American Educational Research Association, Orlando, FL.

Klecker, B., & Loadman, W. E. (1996, April). *An analysis of the school participant empowerment scale (Short & Rinehart, 1992) based on data from 4,091 teachers in 183 restructuring schools.* Paper presented at the annual meeting of the American Educational Research Association, New York.

Louis, K. S., Marks, H. M., & Kruse, S. (1996). Teachers' professional community in restructuring schools. *American Educational Research Journal, 33,* 757-798.

Meehan, M. L., & Cowley, K. S. (1998). *Comprehensive evaluation of the 1996 interdisciplinary teamed instruction summer institute.* Charleston, WV: AEL.

Mott, P. E. (1972). *The characteristics of effective organizations.* New York: Harper & Row.

Nilsen, K. L. (1999). *Assessing organizational capacity for change in a high-need Virginia school district.* Charleston, WV: AEL.

Short, P. M., & Rinehart, J. S. (1992). School participant empowerment scale: Assessment of level of empowerment within the school environment. *Educational and Psychological Measurement, 52,* 951-961.

Western Michigan University. (2000). *Draft FY 99 report: External evaluation of AEL, Inc.* Kalamazoo, MI: The Evaluation Center.

TM032300

U.S. Department of Education
Office of Educational Research and Improvement (OERI)
National Library of Education (NLE)
Educational Resources Information Center (ERIC)

NOTICE

Reproduction Basis

☒ This document is covered by a signed "Reproduction Release (Blanket)" form (on file within the ERIC system), encompassing all or classes of documents from its source organization and, therefore, does not require a "Specific Document" Release form.

☐ This document is Federally-funded, or carries its own permission to reproduce, or is otherwise in the public domain and, therefore, may be reproduced by ERIC without a signed Reproduction Release form (either "Specific Document" or "Blanket").