Wyoming's Instructional Facilitator Program: Teachers' Beliefs about the Impact of Coaching on Practice

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In 2006, the Wyoming state government allocated monies for the Department of Education to fund the work of Instructional Facilitators, or coaches, in schools across the state (Wyoming Department of Education, 2008). In Spring 2009, after the program had been in place for two years, an ex-post facto study was designed to examine the impact of the program on teacher practice. An online survey was used to collect data from classroom teachers throughout Wyoming's public schools. Teachers answered questions about the extent of their work with Instructional Facilitators, the activities that they worked on with Instructional Facilitators, and the impact of their work with Instructional Facilitators on their practice. Results indicate that while a large number of teachers reported spending a small amount of time working with Instructional Facilitators, a small number of teachers reported spending a great deal of time working with Instructional Facilitators. Although differences by teaching level were apparent, the majority of respondents indicated they wished to continue working with an Instructional Facilitator and that Wyoming is spending its money wisely on the program. Discussion of these findings includes implications for Instructional Facilitator workloads and the need to focus their work on specific outcomes.

Key words: Instructional facilitators; coaching; professional development; in-service teachers.

In 2006, the Wyoming state government allocated monies for the Department of Education to fund the work of Instructional Facilitators, or coaches, in schools across the state (Wyoming Department of Education, 2008). In Spring 2009, after the program had been in place for two years, an ex-post facto study was designed to examine the impact of the program on teacher practice.

Wyoming is a state with a large number of Frontier Counties, that is, "counties with a population density of less than 7 persons per square mile" (Rural Assistance Center, Frontier Counties Map, 2000). According to all three of the rural definitions based on Census Places (United States Department of Agriculture/Economic Research Service, 2007), Wyoming is an overwhelmingly rural state. Professional development in a rural state such as Wyoming requires that educational development take on unique and creative characteristics; the use of Instructional Facilitators for professional development is one rural state's attempt to provide effective professional development for teachers.

Literature Review

The purpose of staff development has always been to bring about change in classroom practice, in teachers' beliefs and attitudes, and in student learning outcomes (Guskey, 1986). Generally, professional development for teachers is seen as essential, but research and popular notions indicate that it is frequently perceived of as ineffective (Guskey, 2002). In spite of clear goals for professional development, it has been difficult for researchers to show that it has resulted in changes in individual teachers' practices, beliefs and attitudes (Richardson, 1990). Darling-Hammond and McLaughlin (1995) suggest that essential characteristics of teacher professional development include the following:

- It must engage teachers in concrete tasks of teaching, assessment, observation, and reflection that illuminate the processes of learning and development.
- It must be grounded in inquiry, reflection, and experimentation that are participant-driven.
- It must be collaborative, involving a sharing of knowledge among educators and a focus on teachers' communities of practice rather than on individual teachers.
- It must be connected to and derived from teachers' work with their students.
- It must be sustained, ongoing, intensive, and supported by modeling, coaching, and the collective solving of specific problems of practice.
- It must be connected to other aspects of school change. (Darling-Hammond & McLaughlin, 1995, p. 597)

Similarly, Guskey's (2002) model of teacher change begins with professional development, which may lead to changes in teachers' classroom practices. Changes in teachers' classroom practices may subsequently lead to changes in student learning outcomes. According to Guskey's model, it is seeing changes in student learning outcomes that leads to changes in teachers' beliefs and

attitudes. The idea is that teachers value student learning, and that their beliefs and attitudes change based on what they see as success, that is, changes in student learning outcomes. According to Guskey's model, professional development providers must (a) recognize that change is a gradual and difficult process; (b) ensure that teachers receive regular feedback on student learning progress; and (c) provide continued follow-up, support, and pressure.

Rural settings, however, require special treatment, including access to distance technology, support from administrators and colleagues, and an understanding of the unique and complex factors at work in those rural settings. Some recent research on in-service teacher development in African contexts has addressed issues of technology use and contextual support. For example, Aluku (2009) examined the use of distance education as a delivery mode for in-service teacher development in technology use, finding positive perceptions from teachers and principals on the program. Similarly, Potgeiter (2004) described technology education workshops for teachers in southern Africa, finding that teachers were positive overall about their experiences, but that they experienced problems with lack of support from colleagues and principals in implementing what they had learned. Sampong (2009) examined the use of distance education as a delivery mode for pre-service and in-service teacher education in rural Ghana, finding that program is improving K-8 teacher performance, although there were discrepancies between program standards and performance. Thakrar, Zinn, and Wolfenden (2009) presented the work of the Teacher Education in Sub-Saharan African (TESSA) project, which works to improve both quality of and access to primary school teacher education in nine African nations. Factors they found that contributed to the success of these programs include support for teachers and adequate resources.

An intensive collaborative professional development model was developed by university researchers in Florida, in collaboration with rural elementary school teachers, which focused on helping teachers move away from scripted programs and into informed, flexible, and creative uses of instructional resources (Fang, Fu, & Lamme, 2004). Findings from this study indicated that these professional development efforts must address complex barriers related to teaching practices, and to the contexts in which teachers work. These studies suggest that the work of teacher development in rural areas can benefit from the use of distance technologies, although issues of ongoing support, access, and fit with local practices may prove to be hurdles that need to be overcome in changing teachers' beliefs and practices.

Instructional coaching has recently been proposed as a means to assist teachers in changing their practices and beliefs. Neufeld and Roper (2003) present an overview of models through which coaching in schools has been developed, focusing particularly on what they call *change coaches* and *content coaches*. Change coaches work to address whole-school issues, organizational and systemic challenges. They typically work more directly with principals than with teachers. Content coaches typically work to improve instruction in specified ways and are more likely to work directly with teachers than with principals. Research on peer coaching and on instructional coaching as a form of professional development is an emerging entity, with coaching being described as an opportunity for teachers to "learn about new strategies and techniques, to observe demonstration of strategies, and to practice and receive feedback on the strategies in their own classroom setting" (Peterson, Taylor, Burnham, & Schock, 2009, p. 500). Coaching can provide opportunities for a systematic mode of reflection on teaching methods (Joyce & Showers, 2002; Uzat, 1998). However, what coaching looks like can vary. Coaching can occupy a space on a continuum from extremely intense (personal, daily access to classrooms) to much looser structured relationship building activities (Bean, 2004; Walpole & Blamey, 2008).

Peer coaching has been examined as a tool for professional development in higher education settings (Huston & Weaver, 2008) and as part of a comprehensive professional development program for the San Diego City Schools (Quick, Holtzman, & Chaney, 2009). Peer coaching was also the focus of a study examining the work of experienced teachers who took part in a one-year reciprocal coaching process (Zwart, Wubbels, Bergen, & Bolhuis, 2007). In all three of these studies, results were mixed. According to Zwart et al. (2007), "Patterns of change within a context of reciprocal peer coaching did not necessarily have to include reciprocal peer coaching activities" (p. 184). Quick, Holtzman, and Chaney (2009) found that coaching was one of several factors that had a positive impact on teacher change, although coaching was not perceived by teachers as being significantly impactful.

The present study was designed to determine the impact of instructional coaching in Wyoming, examining teachers' beliefs about the effectiveness of a state-wide program.

Methodology

A survey was used to collect data from classroom teachers throughout Wyoming's public schools. Data were collected in Spring 2009, examining the effects of Wyoming's Instructional Facilitator (or instructional coaching) program on teacher practice. The program had been in place for two years prior to the data collection.

Sample

The entire population of Wyoming's classroom teachers (n=6,978) was indirectly accessible to the researchers for the study (Wyoming Department of

Education, 2009). The teachers surveyed included 3,606 elementary teachers, 1,364 junior high/middle school teachers, and 2,008 high school teachers in 48 school districts. The sample included those teachers who chose to complete the online survey. Overall, 1,672 respondents completed the survey: 580 elementary teachers, 686 secondary teachers, 149 K-12/other teachers, and 229 teachers who did not identify their teaching level. In addition, 28 reported they were administrators or instructional facilitators; these responses were deleted so that the final dataset included only teachers. The number of teachers completing the survey was 1,644.

Instrumentation

The survey was developed based on input from several sources: Existing research on the work of instructional coaches or facilitators (Knight, 2004, 2006; Neufeld & Roper, 2003); a prior survey on the work of Instructional Facilitators in Natrona County, Wyoming (Rush & Young, 2007); and consultation with the Wyoming Department of Education's Instructional Facilitator Task Force. The survey included categorical and numeric scale questions about the extent of teachers' work with Instructional Facilitators; their beliefs about effectiveness of the program, value of time spent, and impact on student learning; and their attitudes toward the program. In addition, teachers responded to demographic questions and one open-ended question asking for additional comments. The survey was piloted with a small group of educators and revised to clarify any confusing items. The survey was placed online, using a web-based design, and according to the pilot, the 56-item survey took respondents 10 to 15 minutes to complete.

Procedures

Prior to conducting the study, superintendents in each of the 48 school districts were contacted by letter. The letter explained the purpose of the study and asked permission for the researchers to collect data in their districts. None of the superintendents declined to allow participation. Following the superintendents' permission, an email containing a link to the online survey was sent to all Wyoming principals (n=348) and district-level curriculum coordinators (n=49). They were encouraged to forward the link to classroom teachers. Two reminder emails were sent to the principals and curriculum coordinators over a three-week period of data collection. At the close of the data collection period, data were downloaded from the survey website into SPSS version 13 for data analysis.

Results

The demographics for the 1,644 teachers who completed the survey are displayed in Table 1. Comparing the percentage of elementary and secondary teachers who responded and identified their teaching level to the percent of elementary and secondary teachers in the state shows some similarities and differences: At the time of the study 52 percent of Wyoming's teachers were teaching at the elementary level whereas 35 percent of the teachers in our study reported that they were teaching at this level. Forty-eight percent of Wyoming's teachers were teaching at the secondary level (junior high/middle school combined with high school) and 42 percent of the teachers in the study reported teaching at this level.

Table 1
Frequency and percent for Classroom Teacher, Teaching Level, and Gender

	Frequency	Percent
Classroom Teacher		
Yes	1263	77%
No	163	10%
No response	218	13%
Teaching Level		
Elementary	580	35%
Secondary	686	42%
K-12	127	8%
Other	22	1%
No response	229	14%
Gender		
Male	364	22%
Female	1024	62%
No response	256	16%

The Wyoming Department of Education did not provide statistics on the number of teachers who teach K-12 (such as physical education, music, or art teachers); however, 8 percent of the teachers in the study reported teaching at the K-12 level. In addition, a majority of respondents reported their gender as female (62%) compared to male (22%). Statistics from the Wyoming Department of Education for gender were not available. Teachers also reported their years of experience. The average years of teaching experience was 16.5 (SD=10.6), compared to the Wyoming Department of Education's report of 14.8 years. In addition, they reported a mean of 12.2 years (SD=9.8) of experience in their current district and 9.5 years (SD=8. 5) in their current school.

Extent of Work with Instructional Facilitators

Of the 1,644 teachers who responded to the survey, 88 percent (n=1,439) reported that they had been offered the opportunity to work with an Instructional Facilitator and 83 percent of the teachers surveyed (n=1,338) reported that they had worked with an Instructional Facilitator at least once. Most of the remaining survey

questions were available only to those who indicated that they had worked with an Instructional Facilitator.

To find out more about teachers' work with Instructional Facilitators, teachers were asked to respond to questions about how much time they typically spent working with Instructional Facilitators, in both one-on-one and group situations.

Table 2 shows teachers' responses to these questions, grouped by teaching level. These questions were available only to the 1,338 teachers who reported that they had worked with an Instructional Facilitator.

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Table 2
Frequency and Percent of Time Spent in a Typical Week Working with an Instructional Facilitator

	One-on-One		Group	
	Frequency	*Percent	Frequency	*Percent
Elementary				
less than 1 hour	409	71%	387	67%
1 to 2 hours	79	14%	94	16%
More than 2 hours	21	4%	26	5%
No response	71	12%	73	13%
Secondary				
less than 1 hour	475	69%	481	70%
1 to 2 hours	53	8%	42	6%
More than 2 hours	11	2%	14	2%
No response	147	21%	149	22%
K-12 and Other				
less than 1 hour	112	75%	108	73%
1 to 2 hours	10	7%	15	10%
More than 2 hours	4	3%	3	2%
No response	23	15%	23	15%

* Note: Percentages in each category may not add to 100%, due to rounding.

In teachers' responses to the question about typical time spent working with an Instructional Facilitator, in both one-on-one and group settings, all three groups report highest percentages of working with an Instructional Facilitator for less than an hour per week. However, a greater percentage of elementary teachers reported spending an hour or more per week compared to secondary and K-12/other teachers.

Teachers also reported the activities that they worked on with Instructional Facilitators. They chose from 12 activities that are typical of Instructional Facilitators' work with teachers. Although the percentages differed across the three teaching levels, the activities receiving the highest percentage of responses from all three groups of teachers include "provide support in choosing instructional strategies" (73% elementary, 62% secondary, and 66% K-12/other) and "participate in collaborative meetings" (75% elementary, 58% secondary, and 61% K-12/other). The lowest group of reported activities with an Instructional Facilitator includes "review with me the effectiveness of modeling or coaching" (29% elementary, 17% secondary, and 22% K-12/other) and "facilitate a cohort study group" (33% elementary, 17% secondary, and 23% K-12/other).

Activities with Instructional Facilitators: Effectiveness, Value, and Impact on Student Learning

This section provides results from survey questions on elementary, secondary, and K-12/other teachers' perceptions of activities they worked on with Instructional Facilitators. Teachers rated these activities according to their effectiveness in changing teacher practice, the value of time spent, and on impact on student learning. Table 3 shows means and standard deviations for teachers' perceptions of Instructional Facilitators' effectiveness in changing teacher practice for 12 typical activities.

Table 3
Means and Standard Deviations for Instructional Facilitators' Effectiveness in Changing Teacher Practice grouped by Elementary, Secondary, and K-12/ Other Teachers

Activity	Elementary N=507		Secondary N=537		K-12/Other N=125	
	Mean	SD	Mean	SD	Mean	SD
Provide support in choosing appropriate instructional strategies	4.14	.93	3.87	1.05	3.89	1.17
Provide support in developing and/or using appropriate formative assessments	4.01	1.01	3.70	1.18	3.62	1.19
Assist in maintaining a supportive classroom environment	3.96	1.04	3.67	1.17	3.67	1.24
Coach me in my classroom	3.95	1.06	3.45	1.24	3.53	1.23
Model effective instructional strategies	4.15	.98	3.70	1.23	3.85	1.24
Provide oral or written feedback	4.04	1.02	3.82	1.17	3.83	1.23
Review with me the effectiveness of modeling or coaching	3.81	1.10	3.46	1.26	3.64	1.19
Participate in collaborative meetings	4.15	.95	3.92	1.10	3.95	1.08
Help me to use student achievement data	4.13	.98	3.74	1.21	3.84	1.15
Help me identify student needs for instructional focus	4.13	.95	3.71	1.20	3.81	1.19
Support me in embedding technology in instruction	3.88	1.10	3.92	1.11	3.72	1.20
Facilitate a cohort study group	3.83	1.03	3.58	1.21	3.37	1.25
Overall	4.01	.87	3.80	1.02	3.74	1.13

Note: response values range from 1 (very ineffective) to 5 (very effective)

An examination of teachers' responses to the 12 activities in terms of their effectiveness in changing teacher practice shows relatively high responses on all items, indicating that teachers at all levels find their activities with Instructional Facilitators have some effectiveness in changing teacher practice. Across all three teaching levels, two activities rank highest in their perceived effectiveness: "Provide support in choosing appropriate instructional strategies" and "Participate in collaborative meetings." "Facilitate a cohort study group" was ranked among the lowest activities across all three teaching levels in terms of effectiveness on changing teacher practice.

However, there are some differences here that should also be noted. Elementary teachers rank all activities higher than do secondary or K-12/other teachers, except for the "Support me in embedding technology in instruction" activity, which is ranked among the bottom three activities for elementary teachers and the top three activities for secondary teachers. Also, "Model effective instructional strategies" was ranked among the top three activities for elementary and K-12/other teachers, but was not as highly ranked for secondary teachers. Similarly, "Coach me in my classroom" was ranked among the bottom three activities for secondary and K-12/other teachers, whereas it was more highly ranked for elementary teachers. Table 4 displays means and standard deviations for the three groups of teachers' ratings of the value of time spent on the 12 activities with Instructional Facilities.

An examination of teachers' responses to the 12 activities in terms of how teachers value the time spent on these activities again shows relatively high responses on all items, indicating that teachers at all levels see some value in the time spent working on these activities with Instructional Facilitators. No common activities were ranked in the top three across all teaching levels. However, three activities were ranked in the bottom three across all teaching levels, in terms of the value of time spent on those activities: "Facilitate a cohort study group," "Coach me in my classroom," and "Review with me the effectiveness of modeling or coaching."

Table 4
Means and Standard Deviations for Value of Time Spent Working with Instructional Facilitators grouped by Elementary, Secondary, and K-12/ Other Teachers

Activity	Elementary N=507		Secondary N=537		K-12/Other N=125	
	Mean	SD	Mean	SD	Mean	SD
Provide support in choosing appropriate instructional strategies	4.20	.87	3.95	1.04	4.05	1.01
Provide support in developing and/or using appropriate formative assessments	4.06	.98	3.85	1.11	3.93	1.02
Assist in maintaining a supportive classroom environment	4.09	1.01	3.81	1.14	3.85	1.14
Coach me in my classroom	4.05	1.05	3.64	1.23	3.70	1.22
Model effective instructional strategies	4.23	.92	3.78	1.19	3.91	1.09
Provide oral or written feedback	4.11	.99	3.90	1.14	3.93	1.13
Review with me the effectiveness of modeling or coaching	3.95	1.03	3.66	1.25	3.68	1.18
Participate in collaborative meetings	4.12	.96	3.86	1.13	3.93	1.11
Help me to use student achievement data	4.23	.90	3.82	1.13	3.89	1.01
Help me identify student needs for instructional focus	4.26	.89	3.80	1.18	4.09	1.00
Support me in embedding technology in instruction	4.06	1.00	4.05	1.08	3.97	1.01
Facilitate a cohort study group	3.89	1.02	3.67	1.20	3.65	1.22
Overall	4.07	.85	3.85	1.00	3.81	1.08

Note: response values range from 1 (complete waste of time) to 5 (excellent use of time)

There are some differences in terms of how teachers value the time spent on these activities that should also be noted. Elementary teachers rank all activities higher than secondary or K-12/other teachers do, in value of time spent. Also, among secondary teachers, "Support me in embedding technology in instruction" is the only activity ranked above 4.0 (good use of time); this activity was highly ranked by both secondary and K-12/other teachers, whereas it was not as highly ranked by elementary teachers. "Model effective instructional strategies" was ranked among the top three activities for elementary teachers, but was not as highly ranked for secondary or for K-12/other teachers. Similarly, secondary teachers ranked "Provide oral or written feedback" among their top three activities, in terms of the value of the time spent; this activity was ranked lower by elementary and K-12/other teachers.

Table 5 provides means and standard deviations for teachers' perceptions of the impact on student learning made by the 12 activities with Instructional Facilitators. In terms of their impact on student learning responses to the 12 activities indicate that teachers at all levels find their activities with Instructional Facilitators have some impact on student learning. Across all teaching levels, while no common activities were ranked in the top three, two activities were ranked in the bottom three by all groups: "Facilitate a cohort study group," and "Review with me the effectiveness of modeling or coaching."

There are some differences in terms of teachers' perceptions of the impact of these activities on student learning. Elementary teachers ranked all activities higher than secondary or K-12/other teachers, except for the "Support me in embedding technology in instruction" activity, which was ranked among the bottom three activities for elementary teachers and among the top three activities for secondary teachers. Also "Model effective instructional strategies" and "Help me identify student needs for instructional focus" were ranked among the top three activities for elementary and K-12/other teachers, but were not as highly ranked for secondary teachers. "Provide support in choosing appropriate instructional strategies" was ranked among the top three activities for impact on student learning by both elementary and secondary teachers, but was ranked lower by K-12/other teachers. Some similarities and some differences are apparent across all three scales and all three teaching levels. All teaching levels report means above 3.0 (where 3.0 is neutral) for all activities. Elementary and K-12/other teachers value modeling of instructional strategies; secondary teachers value support in embedding technology and choosing instructional strategies. All three groups ranked facilitation of cohort study groups, classroom coaching, and reviewing effectiveness of modeling and coaching lower than other activities across all three scales (effectiveness in changing teacher practice, value of time, and impact on student learning).

Table 5
Means and Standard Deviations for Perceptions of Elementary, Secondary, and K-12/ Other Teachers about the Impact on Student Learning

Activity	Elementary N=507		Secondary N=537		K-12/Other N=125	
	Mean	SD	Mean	SD	Mean	SD
Provide support in choosing appropriate instructional strategies	4.25	.79	3.98	.90	3.97	1.02
Provide support in developing and/or using appropriate formative assessments	4.13	.85	3.88	.96	3.91	1.04
Assist in maintaining a supportive classroom environment	4.15	.92	3.89	.98	3.83	1.20
Coach me in my classroom	4.13	.91	3.74	1.03	3.79	1.14
Model effective instructional strategies	4.23	.86	3.94	1.00	3.97	1.02
Provide oral or written feedback	4.13	.87	3.96	.94	3.87	1.06
Review with me the effectiveness of modeling or coaching	4.03	.97	3.78	1.05	3.76	1.15
Participate in collaborative meetings	4.12	.86	3.90	.98	3.99	1.03
Help me to use student achievement data	4.22	.87	3.88	1.01	3.90	.99
Help me identify student needs for instructional focus	4.23	.88	3.90	1.04	4.06	1.03
Support me in embedding technology in instruction	4.10	.95	4.11	.95	3.85	1.10
Facilitate a cohort study group	3.91	.93	3.72	1.04	3.80	1.16
Overall	4.09	.75	3.90	.86	3.85	.96

Note: response values range from 1 (very negative) to 5 (very positive)

Attitudes about Work with Instructional Facilitators

In this section, results of survey questions on elementary, secondary, and K-12/other teachers' work with Instructional Facilitators are reported, particularly focusing on changes in teacher practice, reflection on teaching, student performance, and overall value of the Instructional Facilitator program.

Teachers reflected on their work with Instructional Facilitators and expressed their degree of agreement, using a Likert response scale, with statements regarding the impact of their work with Instructional Facilitators on their teaching practice, on reflective practice, and on student performance. In addition, respondents evaluated how available Instructional Facilitators were in their buildings and how working with Instructional Facilitators had impacted collegial relationships among teachers. They also rated the overall value of the Instructional Facilitator program. Table 6 presents results for all of these questions, grouped by teaching level. In general, all three groups of teachers reported positive attitudes regarding the impact of their work with Instructional Facilitators on teaching practice, reflection, the impact on student performance, and their beliefs about the overall value of continuing the program. Teachers also perceive that Instructional Facilitators are available to help them and have the knowledge they need to do their jobs, with secondary teachers being most positive. Weaker attitudes were found regarding the impact of Instructional Facilitators on development of collegial relationships among teachers. For seven out of these eight statements, elementary teachers were most positive compared to the other two groups of teachers.

Table 6
Means and Standard Deviations for Elementary, Secondary, and K-12/Other Teachers' Perceptions of the Impact of Their Work with Instructional Facilitators

	Elementary N=507		Secondary N=537		K-12/Other N=125	
	Mean	SD	Mean	SD	Mean	SD
The Instructional Facilitators with whom I work have the knowledge they need to do their jobs effectively.	4.17	1.02	3.94	1.10	3.94	1.17
Instructional Facilitators in my building are easily available to me.	3.75	1.21	3.94	1.12	3.81	1.15
My teaching practice has improved because of my work with an Instructional Facilitator.	3.71	1.13	3.40	1.18	3.40	1.26
My work with an Instructional Facilitator has helped me reflect on my teaching.	3.80	1.10	3.59	1.13	3.55	1.21
My students' performance has improved because of my work with an Instructional Facilitator.	3.67	1.09	3.30	1.12	3.37	1.25
Working with an Instructional Facilitator has helped me to develop a better relationship with my colleagues.	3.26	1.13	3.14	1.13	3.06	1.27
I want to continue working with an Instructional Facilitator.	3.98	1.15	3.67	1.21	3.60	1.32
Instructional Facilitators are an excellent use of Wyoming's money.	3.74	1.41	3.39	1.39	3.37	1.50
Overall	3.76	.99	3.55	1.00	3.51	1.02

*Note: response values range from 1 (strongly disagree) to 5 (strongly agree)

Discussion

Although the response rate for this survey was moderate (24%), the fact that respondents represented 46 of the 48 districts in the state and that certain demographics of the respondents were similar to the population demographics of Wyoming's teachers, indicate that the sample may be representative of teachers in the state of Wyoming. Of the 1,439 teachers who reported that they had been offered an opportunity to work with an Instructional Facilitator, 1,338 reported that they had worked with an Instructional Facilitator at least once.

Instructional Facilitator Workload

A large number of teachers reported spending a small amount of time working with Instructional Facilitators; a small number of teachers reported spending a great deal of time working with Instructional Facilitators. This pattern was evident across all teaching levels. Thus, it appears that the Instructional Facilitators have heavy workloads, and most teachers may only be receiving minimum benefit from working with Instructional Facilitators in both one-on-one and group settings. When asked to report what activities they worked on with Instructional Facilitators, teachers across all three levels reported that they participated in collaborative meetings and received support in choosing appropriate instructional strategies more than any other activities. That the work of Instructional Facilitators is spread out so thinly may limit the impact that Instructional Facilitators are able to have on both teacher practice and student performance. These are challenging conditions under which to expect Instructional Facilitators to have a system-wide or school-wide impact.

To minimize the impacts of these heavy workloads, district supervisors and/or officials in the state department of education might consider using distance technologies to allow Instructional Facilitators to meet and work together or even to allow Instructional Facilitators to provide *virtual* coaching for teachers in buildings separated by great distances. However, while distance technologies can be beneficial to the work of educating in-service teachers, additional support and localization are needed for success (Aluku, 2009; Fang, Fu, & Lamme, 2004; Potgeiter, 2004).

Valued Activities

It is apparent, from our findings, that Instructional Facilitators in Wyoming can be classified as *content coaches* (Neufeld & Roper, 2003), because they tend to work with teachers on instructional issues, rather than working with principals on policy and management issues. Disaggregating data across teaching levels, allowed us to see differing patterns in the value placed on activities with Instructional Facilitators by Wyoming's elementary, secondary, and K-12/other teachers. The general patterns emerging across effectiveness in changing teacher practice, the value of time spent, and the impact on student learning at all three teaching levels were as follows:

- Means across teaching levels were all above 3.0 (where 3.0 was neutral). Thus, all activities were seen as having some impact on teacher practice, some value in terms of time spent, and some impact on student learning.
- Differences by teaching level were apparent. Elementary teachers appear to value modeling of instructional strategies more than other activities in all three areas (teacher practice, value of time, student learning); secondary teachers value support in embedding technology and in choosing instructional strategies more than others; K-12/other teachers indicate that modeling effective instructional strategies and participating in collaborative meetings are most important in impacting both teacher practice and student learning.
- Remarkably, all three groups (elementary, secondary, and K-12/other) showed congruity in the activities that they ranked lowest for impact on teaching practice, value of time, and impact on student learning. Namely, there was little interest in facilitation of cohort study groups, classroom coaching, or reviewing the effectiveness of modeling or coaching.

Future of the Instructional Facilitator Program in Wyoming

The majority of respondents indicated they wished to continue working with an Instructional Facilitator, and that Wyoming is spending its money wisely on the program. Elementary teachers were more positive than secondary and K-12/other teachers in both their desire to continue working with an Instructional Facilitator, and their belief that Wyoming's money is being well spent. There were, of course, teachers who disagreed, but they were decidedly in the minority. While teachers' perceptions were very positive about Instructional Facilitators having the knowledge they need to do their jobs effectively, it may be that Instructional Facilitators are being stretched too thinly to be truly available to teachers and that the program could benefit from a clearer sense of the roles and responsibilities of Instructional Facilitators.

Implications for Education

Coaching programs that are supported by funding at the state level, such as Wyoming's Instructional Facilitator program, show great promise for impacting teachers' perceptions about their practice. The results of this study show a need to differentiate the work of Instructional Facilitators across teaching levels and possibly to focus the work in specific areas rather than asking Instructional Facilitators to support a wide range of instructional activities for all teachers. If teachers truly begin to value professional development when they can see its impact on student learning (Guskey, 2002), districts and the state department of education may be well advised to develop further opportunities for teachers to access achievement data on their students; part of this work would be to make clear how those achievement data might have been impacted by the work of Instructional Facilitators.

Elementary, secondary, and K-12/other teachers appear to value different types of activities as they work with Instructional Facilitators. Roles and responsibilities of Instructional Facilitators should thus be differentiated across levels of teachers with whom they work. Similarly, training and other developmental activities for Instructional Facilitators should be focused on the kinds of activities they work on with teachers. For example, elementary teachers expressed an interest in working with Instructional Facilitators on developing and using formative assessments, whereas secondary and K-12/other teachers were more interested in working with Instructional Facilitators to embed technology in their instruction. In Wyoming, Instructional Facilitators who are expected to work across all levels (K-12), in all content areas, and to support teachers in many different ways are faced with an impossible challenge. Our suggestions for utilizing distance communication methods might be of value for assisting Instructional Facilitators with both issues of isolation and with the challenging nature of their positions. School districts should determine the best use of Instructional Facilitators and define their jobs clearly and in a way that will not dilute the impact of coaching on teaching practice. This is

particularly of important for small schools, such as those in a rural state like Wyoming, where Instructional Facilitators are shared among schools and across school levels. In order for Instructional Facilitators to be successful, particularly in these kinds of settings, schools and districts must prioritize the goals toward which they expect Instructional Facilitators to work.

References

Aluko, R. (2009). The impact of an Advanced Certificate in Education (ACE) program on the professional practice of graduates. *International Review of Research in Open and Distance Learning*, *10*(4).

Bean, R.M. (2004). Promoting effective literacy instruction: The challenge for literacy coaches. *The California Reader, 37*(3), 58-63.

Darling-Hammond, L., & McLaughlin, M.W. (1995). Policies that support professional development in an era of reform. *Phi Delta Kappan, 76*(8), 597-604.

Fang, Z., Fu, D., & Lamme, L. (2004). From scripted instruction to teacher empowerment: Supporting literacy teachers to make pedagogical transitions. *Literacy*, *38*(1), 58-64.

Guskey, T. (2002). Professional development and teacher change. *Teachers and Teaching: Theory and Practice, 8*(3/4), 381-391.

Guskey, T. (1986). Staff development and the process of teacher change. *Educational Researcher, 15*(5), 5-12.

Huston, T., & Weaver, C. (2008). Peer coaching: Professional development for experienced faculty. *Innovations in Higher Education, 33*, 5-20.

Joyce, B., & Showers, B. (2002). Student achievement through staff development (3rd ed.). Alexandria, VA: Association for Supervision and Curriculum Development.

Knight, J. (2006). Instructional coaching. *The School Administrator, 63*(4), (36-40).

Knight, J. (2004). Instructional coaches make progress through partnership: Intensive support can improve teaching. *Journal of Staff Development, 25*(2), 32-37.

Neufeld, B., & Roper, D. (2003). Coaching: A strategy for development of instructional capacity. Providence, RI: Annenberg Institute for School Reform.

Peterson, D., Taylor, B., Burnham, B., & Schock, R. (2009). Reflective coaching conversations: A missing piece. *The Reading Teacher, 62*(6), 500-509.

Potgieter, C. (2004). The impact of the implementation of technology education on in-service teacher education in South Africa. *International Journal of Technology and Design Education*, *14*(3), 205-218.

Quick, H., Holtzman, D., & Chaney, K. (2009). Professional development and instructional practice: Conceptions and evidence of effectiveness. *Journal of Education for Students Placed at Risk, 14*, 45-71.

Richardson, V. (1990). Significant and worthwhile change in teaching practice. *Educational Researcher, 19*(7), 10-18.

Rural Assistance Center (Center for Applied Research and Environmental Systems). (2000). Frontier counties, U.S. Census. Retrieved from http://www.raconline.org/maps/#frontier

Rush, L., & Young, S. (2007). *Baseline evaluation report: Impact of instructional facilitators on teachers and students in Natrona County School District #1*. Unpublished manuscript.

Sampong, K. (2009). An evaluative study of a distance teacher education program in a university in Ghana. *International Review of Research in Open and Distance Learning*, *10*(4).

Thakrar, J., Zinn, D., & Wolfenden, F. (2009). Harnessing open educational resources to the challenges of teacher education in sub-Saharan Africa. *International Review of Research in Open and Distance Learning*, *10*(4).

United States Department of Agriculture/Economic Research Service. (2007). *Rural definitions*. Retrieved from http://tinyurl.com/ruraldef

Uzat, S.L. (1998). *Cognitive coaching and self-reflection: Looking in the mirror while looking through the window.* Paper presented at the annual meeting of the Mid-South Educational Research Association, New Orleans, LA. (ERIC Document Reproduction Service No. ED427064).

Walpole, S., & Blamey, K. (2008). Elementary literacy coaches: The reality of dual roles. *The Reading Teacher, 62*(3), 222-231.

Wyoming Department of Education (2008). *Wyoming block grant – School district resource summary.* Retrieved May 1, 2009 from http://www.k12.wy.us/.

Wyoming Department of Education (2009). Retrieved May 1, 2009 from http://www.k12.wy.us/

Zwart, R.C., Wubbels, T., Bergen, T.C.M., & Bolhuis, S. (2007). Experienced teacher learning within the context of reciprocal peer coaching. *Teachers and Teaching: Theory and Practice, 13*(2), 165-187.

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