

Knowledge and Skills for Teachers Supervising the Work of Paraprofessionals

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ABSTRACT: *This study identified competencies needed by teachers to supervise or direct the work of paraprofessionals in educational settings. Participants included 92 administrators, 266 teachers, and 211 paraprofessionals. Respondents completed a survey of prospective competencies for teachers supervising the work of paraprofessionals. In addition, respondents were asked about the extent to which they observed teachers' demonstration of these competencies in their school environments. Results of the study suggest that participants considered the competencies very important, but that the competencies were not observed as frequently as their perceived importance. For teachers who reported they did not demonstrate competencies, it was often due to a lack of preservice preparation or professional staff development opportunities. Implications for practice are discussed.*

Recent changes in the Individuals with Disabilities Education Act (IDEA) have placed a renewed emphasis on preparing paraprofessionals to provide special education services and ensuring they are adequately supervised. While there is a long history of developing training materials and resources for preparing paraprofessionals for their roles, the history of identifying knowledge, skills, and preparation needed by teachers to di-

rect the work of paraprofessionals is not as long (French, 1997; Mueller, 1997; National Joint Committee on Learning Disabilities, 1998; Pickett & Gerlach, 1997; Radaszewski-Byrne, 1997). This study identified knowledge and skills important for teachers and other professionals who direct the work of paraprofessionals and examined the extent to which these competencies are demonstrated in educational environments. Changes in educational practices, a focus on establishing educational standards and ac-

countability systems, and an emphasis on including and helping youth with disabilities to succeed in general education settings have led to changes in the roles of teachers and paraprofessionals. The importance of developing systems for preparing and supporting teachers and paraprofessionals in these emerging roles is evident in IDEA and other legislation. For example, Goals 2000, the Educate America Act (1994), provides a framework for developing standards and systems for improving the quality of education for all children and youth. To achieve national education goals, the act stressed the need to provide educational professionals, including paraprofessionals, with opportunities to acquire knowledge and skills needed to instruct and prepare America's students for living and working in this new century. These goals were also emphasized and supported by provisions in the 1994 reauthorization of the Elementary and Secondary Education Act (ESEA) that expanded Title I services, the Bilingual Education Act, among other federal legislation. The need for states and local districts to provide paraprofessional training and professional staff development is specified in these acts.

Current efforts to reform educational practices have added new dimensions to traditionally recognized teacher responsibilities. Commonly, teachers serve as learner needs diagnosticians, lessons and learning strategies planners, learning facilitators, and learner performance assessors. Increasingly, teachers participate in school-based governance and decision making (Bauch & Goldring, 1998; Wall & Rinehart, 1998). They also help determine how to allocate human and fiscal resources to meet student needs and assist in the development of curriculum content and activities (Fitzharris, 1999; Trzcinka, 1998). In addition, teachers collaborate with other school professionals, students, and parents to establish and implement learner goals and objectives, and serve as liaisons

Policymakers have turned to paraprofessionals to support and expand the program management and administrative functions of teachers.

between home and school (Darling-Hammond, 1994; DeBoer, 1995; French, 1997; Friend & Cook, 1996; Putnam, 1993).

To help teachers effectively carry out these new responsibilities, policymakers have turned to paraprofessionals to support and expand the program management and administrative functions of teachers (Genzuck, Lavadenz, & Krashen, 1994; Lyons, 1995; Miramontes, 1990; Mueller, 1997; Passaro, Pickett, Latham, & HongBo, 1994; Pickett, 1996; Wallace, 1997). As a result, teachers have become managers of paraprofessionals (French, 1997; French & Pickett, 1997; Pickett, Vasa, & Steckelberg, 1993; Putnum, 1993). Increasingly, teachers are expected to determine how to best work with paraprofessionals within this changing context.

The roles of paraprofessionals have also changed dramatically since they started working in classrooms almost 50 years ago. While they still perform routine clerical and housekeeping tasks, monitor students in nonacademic settings (e.g., lunchrooms, study halls, and playgrounds), and prepare materials, paraprofessionals are also active participants in all components of the instructional process (Lyons, 1995; Moshoyannis, Pickett, & Granick, 1999; Mueller, 1997; Passaro et al., 1994; Rubin & Long, 1994; Stahl & Lorenz, 1995). Under the direction of teachers, paraprofessionals perform functional assessment activities, observe and document data on learner performance and behavior, implement behavior-management programs, instruct individuals and small groups, and assist teachers with modifying programs to meet the needs of individual students (Giangreco, Edelman, Luiselli, & MacFarland, 1997; Lyons, 1995; Miramontes, 1990; Mueller; Passaro et al; Safarik, 1997; Shelton, 1996; Snodgrass, 1991; Stahl & Lorenz, 1995). Studies have reported that some paraprofessionals believe they are wholly responsible for meeting the instructional needs of students receiving special education services, including the responsibilities of planning lessons, supervising students, and evaluating student performance (Stahl & Lorenz).

As paraprofessionals have assumed greater responsibility for meeting students' educational needs, several studies have indicated that paraprofessionals may not have the planning time

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with teachers, preparation and training, and guidance and supervision they need to effectively and confidently perform their jobs (Giangreco et al., 1997; Stahl & Lorenz, 1995). A review of teachers' self-reported, day-to-day supervision of paraprofessionals identified insufficient planning time and communication with paraprofessionals as issues. For example, 57% of the teachers reported a lack of planning time and communication with paraprofessionals (French, 1999). Stahl and Lorenz (1995) also reported that 67% of paraprofessionals responding to a state needs assessment had no regular planning or meeting time with teachers.

Changing roles and responsibilities of paraprofessionals in educational settings make teachers' direction and supervision of paraprofessionals increasingly important. Teachers, however, are rarely prepared through preservice or inservice training to effectively work with paraprofessionals in a way that will improve student performance (French & Pickett, 1997; Pickett et al., 1993). In fact, competency requirements regarding the supervision of paraprofessionals have not been included in most special education and general education certification or endorsement programs (Morgan, 1997; Salzberg & Morgan, 1995). Although some functions associated with the supervision of paraprofessionals have been suggested (e.g., planning, managing schedules, delegating, orienting the new paraprofessional, providing on-the-job training, evaluating paraprofessionals' job performance, and managing the work environment), few empirical studies have been conducted to investigate competencies required of teachers to effectively supervise paraprofessionals (French, 1998; Giangreco et al., 1997; Pickett & Gerlach, 1997).

This study identifies and assesses the importance of knowledge and skill competencies

for teachers supervising the work of paraprofessionals in educational settings and examines the extent to which these competencies are demonstrated in educational settings. We posed the following research questions:

- What competencies are necessary for teachers who direct the work of paraprofessionals?
- To what extent do paraprofessionals, teachers, and administrators consider the competencies important?
- To what extent do paraprofessionals, teachers, and administrators rate the frequency of teachers' demonstration of the competencies in educational settings?
- Do paraprofessionals, teachers, and administrators differ in their perceptions of the importance and frequency of demonstration of the competencies?
- Are there any differences between ratings of importance and frequency of demonstration of the competencies by each respondent group?
- What factors interfere with teachers' use of the competencies in educational settings?

METHOD

PARTICIPANTS AND SETTING

Participants returning a survey of competencies for teachers who direct the work of paraprofessionals included 92 administrators, 266 teachers, and 211 paraprofessionals in the Midwest. Administrators and teachers were randomly selected from mailing lists maintained by the state's Department of Children, Families and Learning (State Education Agency). Since a state-maintained mailing list of paraprofessionals did not exist, paraprofessionals were sampled from a statewide newsletter database. An average response rate to the survey was approximately 30%.

Participants were located in all regions of the state. Specifically, 14% reported being from urban areas, 33% from suburban areas, and 53% from rural areas of the state. The majority of respondents were special education teachers (44%), paraprofessionals (35%), and principals (11%). The remaining were directors of special

education and related service personnel.

Ten percent of the sample had a high school diploma, 20% had some college experience, 25% had a bachelor's degree, 40% had a specialist certificate or master's degree, 3% had a doctoral degree, and 3% indicated they had attained some other educational level. In addition, more than 80% of the respondents reported having a license or certificate to teach. Approximately 90% of respondents reported they had experience in working with individuals with disabilities and supervising paraprofessionals.

PROCEDURES

Survey Development. To develop the survey, we conducted focus groups separately for administrators, paraprofessionals, and teachers using a modified Developing A Curriculum (DACUM) process to gather information about what teachers do or should do to direct the work of paraprofessionals. The DACUM process leads participants through a series of structured activities to define their major work activities and to identify the knowledge and skills most critical to success when, in this case, directing the work of paraprofessionals (American Association of Medical Assistants, 1990).

Individuals invited to participate in focus groups were recommended by members of the State Education Advisory Committee or the Statewide Paraprofessional Consortium. The focus group participants spent approximately 6 hours generating responses to stem questions, eliminating duplicate responses, and grouping items. The responses to questions regarding responsibilities and skills required of teachers to direct the work of paraprofessionals were 30 knowledge and skill competencies. Finally, we developed a survey including the final seven competency areas based on responses of the focus groups. Using the Cronbach's alpha method, the overall reliability of the survey was found to be .93. Prior to distributing the survey, a pilot test was conducted to determine the clarity of instructions and survey items, as well as to ascertain the minimum period of time to complete the survey. Five teachers and four paraprofessionals participated in the pilot test of the survey.

Survey Administration. The participants were asked two types of questions about each competency. First, respondents were asked about the importance of the competency for teachers who direct the work of paraprofessionals. The second question had two different stems, depending on respondents' position. Administrators and paraprofessionals were asked to rate the frequency of teachers' demonstration of competencies using the 4-point Likert scale. Whereas, teachers were asked to report their own demonstration of competencies using the 3-point Likert scale. If teachers indicated they did not use a skill, they were asked to select one of two reasons: the competency was not needed or they did not feel prepared to do it. Figure 1 provides a sample survey item and the response categories for each of the different surveys. Finally, all three groups of participants were asked to add written comments related to directing the work of paraprofessionals.

A return postcard was included with each survey to give a recipient the option of informing us if she or he passed the survey to someone else for whom the survey was more appropriate, discarded the survey, or would like a survey better suited to her or his position. Additional surveys were mailed as they were requested. Two weeks after the initial survey was sent, a follow-up postcard was sent to increase the response rate.

RESULTS

Competencies identified by the focus groups as necessary for teachers who direct the work of paraprofessionals were categorized into seven skill areas (see Table 1). These seven subscales include *Communication with Paraprofessionals*, *Planning and Scheduling*, *Instructional Support*, *Modeling for Paraprofessionals*, *Public Relations*, *Training*, and *Management of Paraprofessionals*. Descriptive statistics of survey ratings of the seven competency subscales by administrators, teachers, and paraprofessionals are displayed in Table 2. Mean responses of these groups across all subscales were between "very important" and "important."

Statistical tests using ANOVA were conducted to examine whether there were group

FIGURE 1
A Sample Survey Item

Stem Question and Response Categories		
One stem question from the training subscale:	The person who directs the work of paraprofessionals...	
	1. Provides opportunities for on-the-job training for paraprofessional skill development.	
Response categories for teachers:	A. This competency is...	B. Do you currently carry out this competency?
	0 Very important	0 Yes, regularly
	0 Important	0 Yes, on occasion
	0 Slightly important	0 No, it is not needed
	0 Not important	0 No, because I feel unprepared
	0 I am undecided	
Response categories for administrators and paraprofessionals:	A. This competency is...	B. Currently, this competency is...
	0 Very important	0 Often demonstrated
	0 Important	0 Occasionally demonstrated
	0 Slightly important	0 Seldom demonstrated
	0 Not important	0 Not demonstrated
	0 I am undecided	0 I am undecided

differences in survey responses between administrators, teachers, and paraprofessionals. Although relationships were assumed to exist between subscales, multivariate ANOVA was not employed because the homogeneity of variances of the dependent variables was not met (Box's $M = 101.56$, $df = 56$, 223870 , $p < .01$). Instead, the Bonferroni method was adopted to control for the increase of type I error due to multiple univariate comparisons. Significant differences were found between the groups only on the subscales of *Public Relations* and *Training* (see Table 2). Post-hoc tests using the Tukey's Honestly Significant Difference (HSD) revealed that paraprofessionals showed higher ratings on the two subscales than did both administrators and teachers.

Teachers were also asked whether or not they demonstrated the competencies, whereas

administrators and paraprofessionals were asked whether they observed teachers' use of the competencies in educational settings. Table 3 shows descriptive statistics on the percentage of positive responses computed by dividing the number of positive responses (i.e., "regular or occasional demonstration of competency" for teachers and "regular or occasion observation of competency demonstration" for administrators and paraprofessionals) by the total number of items in each subscale for teachers, administrators, and paraprofessionals.

Subsequent statistical tests using ANOVA were conducted with the Bonferroni method to examine group differences on the demonstration subscales. Multivariate ANOVA was not employed because the assumption of homogeneity of variances among the subscales was not met (Box's $M = 320.74$, $df = 56$, 264768 , $p < .01$).

TABLE 1
Description of Seven Competency Subscales of the Survey

<i>Competency</i>	<i>Description of Competency</i>
Communication with paraprofessionals	Share student-related information, explain role of the paraprofessional
Planning and scheduling	Coordinate schedules, establish goals, set plans, establish time for planning, and consider strengths and interests of paraprofessionals when aligning tasks
Instructional support	Provide regular feedback regarding each paraprofessional's work performance, support paraprofessionals in providing instruction to students, and provide support and direction to paraprofessionals who work in independent capacities
Modeling for paraprofessionals	Model for paraprofessionals a caring and respectful manner when interacting with students
Public relations	Inform administrators, teachers, and parents of the responsibilities and roles paraprofessionals have in the educational program, advocate for the paraprofessional regarding training and leave time, modifications in responsibility, involvement in decision groups, etc.
Training	Provide on-the-job training for skill development
Management of paraprofessionals	Maintain regular positive and supportive interaction with paraprofessionals, contribute to the evaluation of paraprofessional performance, support skill improvement

The three groups differed significantly on all demonstration subscales (see Table 4). Post-hoc tests using Tukey's HSD revealed that the percentage of positive responses by paraprofessionals were significantly lower on all demonstration subscales than were those by teachers and administrators, and that the percentage of positive responses by teachers were different from those by administrators on *Communication with Paraprofessionals* and *Instructional Support*.

The degree to which teachers, administrators, and paraprofessionals differed in responses on the importance and demonstration subscales within each group was also examined. The percentage of positive responses to the importance subscales were again computed by dividing the number of "very important" and "important" ratings by the total number of items in each subscale (see Table 4). The percentage of positive responses to the importance and demonstration within each group were compared, using the paired *t*-test and controlling type I error by adopting a significance level of .01.

Administrators rated subscales more positively regarding their importance than their demonstration except for *Modeling for Paraprofessionals* (see Table 5). Teachers rated importance subscales more highly than demonstration subscales for only four skill areas including *Planning and Scheduling*, *Instructional Support*, *Training*, and *Management of Paraprofessionals*. In contrast, paraprofessionals showed higher ratings on importance than demonstration across all subscales.

Finally, when teachers reported they did not use the competencies, they were asked to select either of two choices ("The competency is not needed" or "I feel unprepared"). Table 6 shows descriptive information on teachers' responses to the selections on each subscale. Arithmetically, mean responses for "unprepared" were slightly higher than those for "not needed" on all subscales except for *Modeling for Paraprofessionals*. The results of paired *t*-tests indicated that significant response differences were found only in *Training* and *Management of Paraprofessionals*.

TABLE 2*Ratings on Importance Subscales by Administrators, Teachers, and Paraprofessionals*

<i>Subscale</i>	<i>Administrator</i>		<i>Teacher</i>		<i>Paraprofessional</i>		<i>F</i>
	<i>(n = 92)</i>		<i>(n = 266)</i>		<i>(n = 211)</i>		
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
Communication with paraprofessionals	1.41	.40	1.33	.34	1.28	.31	5.07
Planning and scheduling	1.56	.40	1.54	.45	1.49	.42	1.09
Instructional support	1.64	.44	1.63	.43	1.54	.38	6.67*
Modeling for paraprofessionals	1.16	.29	1.20	.37	1.22	.36	.97
Public relations	1.70	.60	1.71	.63	1.43	.51	13.94*
Training	1.53	.54	1.58	.52	1.36	.42	12.71*
Management of paraprofessionals	1.31	.35	1.26	.33	1.28	.32	.69

Note: With regard to rating scales, “very important” was coded as 1, “important” as 2, “slightly important” as 3, and “not important” as 4.

* $p < .01$.

TABLE 3*Percentage of Positive Responses on Demonstration Subscales*

<i>Subscale</i>	<i>Administrator</i>		<i>Teacher</i>		<i>Paraprofessional</i>		<i>F</i>
	<i>(n = 92)</i>		<i>(n = 266)</i>		<i>(n = 211)</i>		
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
Communication with paraprofessionals	.81	.25	.93	.16	.67	.30	69.63*
Planning and scheduling	.81	.28	.87	.22	.63	.34	42.65*
Instructional support	.72	.25	.81	.22	.57	.32	52.70*
Modeling for paraprofessionals	.93	.24	.96	.18	.83	.33	15.55*
Public relations	.74	.37	.82	.31	.55	.43	31.47*
Training	.71	.34	.66	.35	.49	.38	17.90*
Management of paraprofessionals	.81	.21	.86	.21	.64	.30	50.26*

* $p < .01$.

TABLE 4

Mean Percentage of Positive Responses on Importance Subscales

<i>Subscale</i>	<i>Administrator</i> (n = 92)		<i>Teacher</i> (n = 266)		<i>Paraprofessional</i> (n = 211)	
Communication with paraprofessionals	.94	(.16)	.97	(.11)	.95	(.12)
Planning and scheduling	.89	(.24)	.93	(.15)	.91	(.19)
Instructional support	.88	(.19)	.90	(.16)	.86	(.19)
Modeling for paraprofessionals	.96	(.18)	.92	(.25)	.97	(.15)
Public relations	.87	(.27)	.89	(.28)	.84	(.30)
Training	.91	(.21)	.96	(.13)	.89	(.24)
Management of paraprofessionals	.98	(.06)	.97	(.10)	.96	(.12)

Note: Numbers in the parentheses are standard deviations.

DISCUSSION

Teachers are key agents in the improvement of education, which requires ongoing changes in their roles and responsibilities. A teacher's role in providing on-the-job training for and supervising the work of paraprofessionals in educational settings has changed since paraprofessionals were introduced to educational settings. Unfortunately, few training programs for teachers working with paraprofessionals have been developed; further, little empirical research has been conducted to identify the skills and knowledge that teachers or other professionals need for successfully supervising the work of paraprofessionals.

The present study was conducted to empirically identify and validate the skills and knowledge that educational professionals need for directing paraprofessionals by surveying three groups (teachers, administrators, and paraprofessionals). Results show that all groups considered the seven skill areas important. These include *Communication with Paraprofessionals*, *Planning and Scheduling*, *Instructional Support*, *Modeling for Paraprofessionals*, *Public Relations*, *Training*, and *Management of Paraprofessionals*. This suggests that these skill areas could be used as a basis for developing training programs for teachers and other professionals responsible for

directing the work of paraprofessionals in educational settings. In addition, these skill areas could be used as criteria for assessing the work of teachers working with paraprofessionals.

Administrators, teachers, and paraprofessionals similarly reported the skill and knowledge competencies in this study to be important for teachers who direct the work of paraprofessionals. This finding was not surprising given the competency statements originated from focus groups of administrators, teachers, and paraprofessionals. However, there were significant differences found in the level of importance assigned to competencies between the respondent groups.

Paraprofessionals rated two subscales (*Training* and *Public Relations*) more positively than did administrators and teachers. In many studies, paraprofessionals have reported their need for training (French, 1998; Frith & Lindsey, 1982; Jones & Bender, 1993; Pickett, 1997; Stahl & Lorenz, 1995). This might account for the increased importance that paraprofessionals have assigned the *Training* subscale. Additionally, the *Public Relations* subscale includes the role of teachers as advocates for paraprofessional role clarification, training, involvement in decision making, and support for training. Paraprofessionals often report these as areas of concern

TABLE 5

Mean Differences in Percentage of Positive Responses Between Ratings of Importance and Demonstration

Subscale	Administrator (n = 92)	Teacher (n = 266)	Paraprofessional (n = 211)
Communication with paraprofessionals	.12*	.03	.30*
Planning and scheduling	.08*	.04*	.31*
Instructional support	.16*	.05	.34*
Modeling for paraprofessionals	.03	.01	.09*
Public relations	.13*	.02	.34*
Training	.20*	.23*	.47*
Management of paraprofessionals	.17*	.11*	.34*

Note: Mean differences were computed by subtracting demonstration scores from importance scores.

* $p < .01$.

and need (Stahl & Lorenz), which might account for the increased importance assigned by paraprofessionals. Teachers and administrators may not be aware of the perceived need for training and support that paraprofessionals have, which may consequently be reflected in the response differences between these groups. A written comment from a paraprofessional on the survey implemented in this study shows such concerns, saying "In our district the paraprofessionals have been told that anyone off the street can do the job. No one has ever taken the time to actually tell or explain what is expected or do any type of orientation."

In a follow-up discussion with a state-level advisory group consisting of teachers, administrators, paraprofessionals, and representatives from unions, higher education, and state education agency, a common reason given for the group differences in assigned importance was the perception that administrators believe paraprofessionals can be easily replaced. As a result, the resources needed to prepare paraprofessionals for their positions might not be allocated. Similarly, it was the consensus of the state-level advisory group that school board members, administrators, and some teachers are not aware of the changes in the role of paraprofessionals and therefore unaware of the need for training. Ulti-

mately, whether designing personnel systems or implementing student-support strategies, it is important for teachers and administrators to understand paraprofessionals' perceived need for training, role clarification, and involvement in decision making. In contrast to the generally similar group responses regarding the *importance* of the skill areas, group responses to the *demonstration* of the skills and knowledge were less consistent. Whereas teachers and administrators reported positively that many of the competencies are being demonstrated, paraprofessionals were less positive.

While we do not know the underlying premise for these findings, it might be that paraprofessionals perceive the demonstration of competencies differently than do teachers and administrators. Other studies have also reported differences in the perceptions of teachers and paraprofessionals regarding activities related to paraprofessionals' roles and responsibilities (Stahl & Lorenz, 1995; Wallace, 1997). Members of the state-level advisory group reported that, while teachers *believe* they are demonstrating these competencies, they may be doing so inadequately. They suggested that teachers need the tools (knowledge, skills, and strategies) before changes in expectations for their practice are established. A common set of expectations

TABLE 6

Analysis of Reasons Teachers Did Not Use Competencies (n = 266)

<i>Subscale</i>	<i>Not Needed</i>		<i>Unprepared</i>		<i>t</i>	<i>p</i>
Communication with paraprofessionals	.11	(.35)	.15	(.55)	1.21	.23
Planning and scheduling	.21	(.60)	.29	(.74)	1.18	.24
Instructional support	.38	(.80)	.46	(.96)	.94	.35
Modeling for paraprofessionals	.04	(.30)	.01	(.14)	1.46	.14
Public relations	.11	(.38)	.16	(.45)	1.42	.16
Training	.22	(.72)	.92	(1.28)	7.30	.00
Management of paraprofessionals	.12	(.49)	.37	(.76)	4.41	.00

Note: Measures were based on the number of selections on “The competency is not needed.” or “I feel unprepared.” on each subscale. Numbers in the parentheses are standard deviations.

should drive role and responsibilities. Therefore, these reported differences in perceived actions must be clarified through the development of relevant job descriptions, regular planning, and ongoing communication between paraprofessionals and teachers.

In addition to differences in perception, another plausible reason for more positive responses from teachers may be “social desirability” in responses. We question this reason, however, because the survey and the respondents’ answers were anonymous and sent directly to the researcher. Whatever the reasons might be, this difference in perception could lead to incongruent expectations and misunderstandings between teachers and paraprofessionals.

Administrators also reported significantly lower demonstration levels than did teachers on two subscales (i.e., *Communication with Para-*

It is important for teachers and administrators to understand paraprofessionals’ perceived need for training, role clarification, and involvement in decision making.

professionals and *Instructional Support*). Again, we would suggest that a common understanding about what is expected is not held among administrators, teachers, and paraprofessionals. We believe that this can impact perceptions of what is done and how well it is done.

In an effort to better understand differences in the *importance* and *demonstration* findings, we also examined the discrepancy between the responses to importance and demonstration ratings within each respondent group. Interestingly, there was a clear finding in all groups that competency demonstration did not occur to the extent that importance results would suggest. Specifically, statistically significant differences between *importance* and *demonstration* were found on the following number of subscales in each group: paraprofessionals (7 of 7 subscales), administrators (6 of 7 subscales), and teachers (4 of 7 subscales). Paraprofessionals reported that they perceived the demonstration of competencies in all subscales to be less than what would be important for teachers directing their work. Administrators reported similarly for all but one subscale.

When teachers reported they did not demonstrate certain competencies, we asked

teachers whether it was due to either lack of need or lack of preparation. The results of the study showed that lack of preparation was a main concern for teachers in *Training and Management of Paraprofessionals*. In addition, respondents from all three groups (20% of the total number of respondents) added written comments expressing their concerns about the need for training (18% of the total number of respondents) and lack of time to demonstrate the competencies (17% of the total number of respondents). Three examples of these comments follow.

Some teachers maximize us [paraprofessionals] to the fullest degree, where in some classrooms we are on our own and do what we see that needs to be done with no direction. I think in the last few years with the number of paraprofessionals in the school system some teachers do not know what to do with us in the classroom. This should be taught at college level during methods class. For teachers and administrators that do not have this class, then it should be brought into the school system as workshops. We are all here for the kids and we need to learn to work together to be as productive as possible. (Paraprofessional)

This survey addresses many important issues. I feel strongly that more training should be offered not only to paraprofessionals, but also teachers to effectively supervise paraprofessionals. Working out schedules and supervising paraprofessionals is a stressful and difficult part of my job for which I have had little or no training. (Teacher)

I am very concerned about teacher skills and training in supervision, directing work, etc. I think paraprofessionals are poorly supervised in general because there are so many that the principals don't have the same level of involvement as with teachers and teachers don't want to create problems in their programs. There is little time in a day for the level of coordination needed and this is a bad situation, but it is reality. Basically, teachers need training. (Administrator)

The reasons given for the lack of competency demonstration suggest that it may be a systemic issue. Changing expectations for teachers, lack

of preparation for new roles, limited analysis and restructuring of day-to-day teaching responsibilities, and limited preparation of paraprofessionals for their changing roles all contribute to the challenge teachers face to adequately and effectively supervise and direct the work of paraprofessionals with whom they work. Teachers must have adequate preparation, training, support, and time to carry out the critical supervisory functions identified in this study. Therefore, changes in the traditional educational infrastructure should be considered.

To assist policymakers, administrators, and those responsible for personnel development to address systemic issues regarding the changing role of teachers and paraprofessionals, Pickett (2000) has developed guidelines for responsibilities and competencies for teachers and paraprofessionals. However, this is only one part of the process. To ensure that all team members are well prepared to carry out their responsibilities as members of educational teams, it is essential to establish comprehensive systems of professional development that include pre-service and inservice opportunities.

The fact that our sample included respondents from only one state should be considered when interpreting and generalizing the results of the study. This midwestern state is one that is recognized for its attention to the topic of paraprofessional training. The 11-year history of the state's work including research related to paraprofessionals, competency and training development for paraprofessionals, and dissemination of information through a regular newsletter, conference presentations, and a Web site may have caused increased awareness of the role of teachers and paraprofessionals. While the study occurred in one state, the findings of this study have broad implications for policy, practice, and research.

IMPLICATIONS FOR PRACTICE

Teachers need to be prepared to meet educational needs and changes required by recent educational reform efforts. In fact, such educational reform efforts cannot succeed unless teachers are prepared for the challenges that confront them in schools and other learning environments

(Darling-Hammond & McLaughlin, 1995; National Commission on Teaching and America's Future, 1996). Through competency-based preservice and inservice training, teachers can be better prepared to direct the work of paraprofessionals to assist them in meeting the needs of children in our educational system. The responses from administrators, teachers, and paraprofessionals showed that the competencies identified in this study are important and necessary for teachers who direct the work of paraprofessionals.

State licensing units might consider the findings of the study when reviewing current standards for teachers. Currently, only two states have incorporated policies in their credentialing systems that require teachers to be prepared to supervise paraprofessionals. As state education agencies and local districts continue their efforts to establish practices that support initiatives for improving the quality of education and related services for all students, they need to identify policies, procedures, and practices that will strengthen the capacity of teachers to supervise paraprofessionals (Pickett, 2000). The findings from this study might give policymakers, state leaders, and administrators a place to begin.

Similarly, institutions of higher education might add these competencies to their teacher training programs for both special and general educators. Teachers must be prepared before they enter educational settings to understand how to work with paraprofessionals as well as students, parents, and others. Sometimes, teachers reflect on why they wanted to become teachers in the first place, and they report that it was not to supervise adults, but that is the reality in education today. Faculty in higher education institutions can play an important role in preparing new teachers for the competencies necessary for working with paraprofessionals collaboratively early on in their careers. In addition, related service personnel who work with paraprofessionals might also benefit from such preparation.

While policies evolve and training programs are developed to support teachers in their role of directing the work of paraprofessionals, we believe communication between teachers and paraprofessionals should be encouraged. In-

creased communication can result in benefits for teachers, paraprofessionals, and the students with whom they work. Roles and expectations, responsibilities, skills, interests, and areas for development can be discussed and clarified. Teachers can assist with this clarity by sharing information regarding paraprofessional roles with other teachers, administrators, and parents.

Teachers can assist paraprofessionals identify and advocate for the training needed to fulfill their roles. Very often staff development opportunities offered to paraprofessionals are not targeted to their specific needs. Teachers might encourage the school or district to offer training that responds to the needs of the paraprofessionals. A needs assessment might be used to identify such training needs, and specific on-the-job training could be the most valuable, immediate way to ensure that paraprofessionals know what they need to in order to best serve students. And while all of this could be done between one paraprofessional and one teacher, it might also be done on a school or district level in a broader, more systemic way.

Far too often we move forward in new initiatives seeking educational improvements for children without reflecting on the impact that such changes will have on the people and systems that must implement and support the changes. We must identify the skills needed by the individuals who will implement the new initiatives, how and where they might get the knowledge, skills, and strategies they need, and how the system will support them. This study attempted to begin that reflection in this important area.

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