SCHOOL ORGANIZATION IN PAKISTAN: ADMINISTRATION, MANAGEMENT, OR LEADERSHIP?[1]

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School organization affects how teachers teach and how well students learn. Education systems merge three types of organization: administration, management, and leadership.[2] How they are combined and which one dominates spell the difference between systems that bring out the best in members and those that block their performance.

Administration seeks obedience to authority and conformity to rules. It assumes a school system with a fixed framework of hierarchy and rules. Teachers, school heads, supervisors and students should work within that framework and do what they are told. It is not their place to propose innovations or to challenge their superiors. Words reflecting the culture of administration include inspection, auditing, control, accountability and compliance.

Management searches for practices and procedures suited to the environment in which an organization works. Unlike administration, which depends on permanent hierarchy and rules, management looks for methods of organization that can accommodate new demands from its environment and clientele. But it shares with administration the need for routines to maintain order and consistency. Among these are setting goals, preparing plans and budgets, allocating resources, determining whether plans have been carried out, and developing procedures for hiring and promoting staff. Management differs from administration in being

more responsive to conditions outside the organization and more open to staff participation in developing and changing styles of operation. Phrases evoking management include flexibility, meeting targets, problem solving, responding to client needs, and program evaluation.

Leadership means mobilizing staff to meet organizational challenges not handled by administrative rules or strategies of management.[3] By looking for ways to motivate, develop, inspire, and broaden staff, rather than pushing them to comply with set regulations, it is the antithesis of administration. Where administration subjugates individual preferences to the dictates of higher authorities, leadership fosters individual and group qualities that help an organization reach its goals. Instead of announcing rules to be observed by all, leaders seek ways of identifying and using individual talents for the common good of the organization. Key words in leadership are motivation, staff development, aligning people and tasks, teamwork, and mutual trust. In school systems leaders treat teachers and school heads as resources to be developed rather than as objects to be audited and controlled.[4]

Primary school organization in Pakistan involves three main sets of school officials: external supervisors, Learning Coordinators, and school heads. In their work how close does each group come to administration, management, and leadership?

External Supervisors

In Pakistan the provincial Secretary of Education has formal

responsibility for supervising government schools, but most supervision takes place in the district, the main administrative unit in the provinces. Because schools are segregated by gender, the Secretary of Education appoints a male and a female District Education Officer (DEO) in each of about 100 districts. Under the DEO, in order of authority, are the Sub Division Education Officer (SDEO) or Assistant District Education Officer (ADEO); the Assistant Sub Division Education Officer (ASDEO); the Assistant Education Officer (AEO); and Supervisors. Many districts also have Learning Coordinators, a tier of officials first introduced under the World Bank's Primary Education Project. Their work will be discussed later.

The survey of schools included interviews with 288 supervisors responsible for the schools in the sample. They were asked about their own education and experience, how many schools they supervised, how often they visited each school, what they did during their visits, and whether they had special training in how to supervise. Interviews with school heads and teachers had parallel questions about the visits, activities, and impact of four levels of officials, from the DEO to the Learning Coordinators.

The supervisors were better educated than the teachers and school heads they supervised. While most teachers and school heads had completed matriculation (grade 10), around 90 percent of the supervisors had schooling above that level and about half held a master's degree. There were comparable differences in

teacher certification. Where the Primary Teaching Certificate, typically granted to candidates who had completed matriculation, was the most common professional qualification among teachers, about 60 percent of the supervisors had completed a Bachelor's of Education and 20 percent a Master's of Education. Female supervisors had more formal education and higher levels of certification than male supervisors.

A typical supervisor was responsible for 64 schools. The nearest school was an average of 10 kilometers from their home and the farthest 46 kilometers. Supervisors needed about two hours to reach the farthest school. Their most common method of transportation was motorbikes, followed by jeeps and busses.

The supervisors reported an average of 8 visits per year to each school, with men reporting 8 and a half visits and women 6 and a half. What they did once they reached the school differed by gender. Male supervisors observed classes and advised about teaching. They also checked records and registers, teachers' attendance, school cleanliness, student uniforms, and discipline. Women likewise observed classes and advised about teaching. Next came checking records and registers; evaluating the academic progress of students, such as by inspecting their homework or giving a test; and checking student attendance, school cleanliness, uniforms, and discipline. The greatest difference by gender was in evaluating student progress. That was reported by 45 percent of female and only 5 percent of male supervisors.

School heads reported fewer visits per year by the

supervisors than the supervisors reported for themselves. According to school heads, no supervisors appeared during the year before the survey in 10 percent of the schools. In schools where supervisors did appear the heads listed 1 visit by the District Education Officer, 2 by his or her deputies and assistants, and 7 by Learning Coordinators or supervisors. While at the school the district officials and Learning Coordinators observed classes and told teachers how they might improve their teaching. About 70 percent of the school heads felt that these visits were helpful and the rest that they were not.

With one exception, visits by DEOs and their deputies or assistants were not related to the school's average achievement scores in mathematics and science.[5] The exception was visits by the Sub-Divisional Educational Officer or the Deputy DEO, which were positively related to scores on the test for mathematics in grade 4. Given that these officials call at each school less than twice a year and stay for about an hour, it is hard to imagine much direct impact on achievement.

External supervisors act as administrators rather than managers or leaders. In their offices and during their visits to schools they focus on classic questions of administration: does the school have its own building? is it open and in good condition? does the staff keep accurate records? are forms sent in on time? are there enough teachers? do the teachers and pupils attend school when they should? does the school have adequate facilities and does its equipment have all of its parts? During

their rare appearances at schools they may observe classes and talk with teachers, but they do not have the time or the inclination to be managers or leaders.

Learning Coordinators

Adding Learning Coordinators (LCs) was among the most significant innovations ever made in Pakistan's primary schools. Begun in 1979 through the World Bank's Primary Education Project (PEP), they were to work with teachers in from 10 to 20 schools. PEP saw them as an antidote to the perfunctory inspections made by supervisors and an opportunity to improve schooling effectiveness through close contact with teachers. After training in how to do their work, they were to visit each school at least once a month, observe teachers in the classroom, comment on their lesson plans, and make suggestions about how to raise the quality of instruction.[6]

Candidates for LCs needed 3 qualifications: matriculation; a Primary Teaching Certificate, the credential required for trained teachers; and 10 years of teaching experience. Under the original design all LCs reported to the Project Implementation Unit of PEP rather than to the District Education Officer (DEO) and other provincial officials. This arrangement allowed PEP staff to have immediate control over the training and deployment of LCs but caused problems that will be reviewed later. The project provided systematic training for all LCs in the districts covered but did not extend that training to the district staff with whom LCs would be working. As a result many provincial administrators

nominally responsible for the LCs did not understand or appreciate their mission.

What PEP wanted from LCs fell somewhere between leadership and administration. Instead of serving as inspectors and enforcement officers, they would work with teachers and school heads to develop better classroom practices. LCs were asked to observe teachers working with students and show them how to use more effective methods in their lessons. During a BRIDGES interview a Learning Coordinator in Sindh cited his own experience:

> If the teacher is not doing well, I tell the teacher how to do it better. I also help in preparing audio-visual aids. I sit in the classroom, and when the teacher is not doing well I give a demonstration. I teach one hour in each class in the school....

Though some of what they did was leadership, LCs were not trained to be leaders. Their mandate was to be friendly but authoritative advisors with some administrative duties. As the LC quoted above put it, if the teacher was not doing well he would tell him how to do it better. When their visits were over LCs recorded their impressions of the teacher and the school in a log book and, if they found problems such as closed schools or teachers absent, they made recommendations about how they could be solved.

Interviews with education officials and the results of the BRIDGES survey show that the original group of Learning Coordinators brought several benefits to primary schools. Among these were fewer absences by teachers, a benefit also seen more

recently when LCs were introduced in the province of Punjab; many suggestions on how to improve the quality of teaching; and a chance for teachers to discuss their problems in the classroom with sympathetic outsiders.

But from its beginning this innovation faced serious difficulties. DEOs and their staff complained that the LCs answered to PEP and not to them. Because district officials are responsible for the government schools, they believed that LCs should do their bidding. LCs, for their part, felt that they were accountable mainly to the PEP and saw no need for frequent contact with district officials.

Other supervisors were jealous about the special benefits given to LCs, such as motorbikes and extra allowances. "The supervisor has so many demands on his time," said an official in Sindh, " so many meetings and gets only 100 rupees per day as a travel allowance, while the Learning Coordinator gets a full allowance." A few supervisors tried to restore the balance by asking the LCs to give them part of their travel allowances.

Some school heads did not accept the authority of the LCs or saw them as substitutes for missing teachers. Problems of acceptance were greatest when the LC was younger than the school head and had little talent for leadership. As a senior provincial education official put it,

> Most primary school teachers are not looking for leadership; they are looking for substitutes. If the Learning Coordinator is accepted as a leader that would help, but this acceptance is going to take a long time.

LCs themselves caused resentment when they were quick to

criticize teachers or take over their classes. Teachers felt humiliated when LCs interrupted them before they could finish their lessons. These actions showed the competing pulls of being a friendly counselor and an authority figure. The innovation showed LCs how to move in the first direction while the provincial system of supervision and the rest of the LC's experience stressed the second.

Much has changed since 1985, when PEP training for LCs ended and the provinces took more control of this innovation. The most visible shift, and the one drawing the most criticism from advocates of the original innovation, is appointment of very different kinds of officials carrying the name of Learning Coordinator and of staff with other names expected to do the same work. In 1992 Sindh had three groups of officials with equivalent responsibilities. LCs, appointed at grade 11, carried out the activities originally set down for that position. Resource Persons, also appointed at grade 11, performed comparable activities for the province's mosque schools.[7] Supervisors, given the higher grade of 15, had similar duties. North West Frontier Province (NWFP) had three kinds of LCs: those appointed and trained under PEP; those appointed later and given different training; and others with no training who served as attendance checkers.

The training of LCs has also changed greatly since 1985. Some new coordinators are given no training, others a type of training very different from that provided by PEP. In 1992 NWFP

was teaching 500 newly appointed LCs the effective teaching practices suggested by Rugh's (1991) observations of classrooms in Pakistan. Those practices were not part of the original PEP training for LCs. At about the same time Punjab sponsored a series of in-service workshops for LCs and Assistant Education Officers. The province hoped that such workshops would make LCs and AEOs better prepared for advising teachers.

The relationships between LCs and district officials are in transition. Balochistan and Sindh continue to have LCs reporting to PEP rather than to the district. NWFP also continues with the same system, but may close down the PEP office and ask LCs to report to the DEOs and their staff. Punjab, with over half of the country's primary schools, has decided that LCs should be directly responsible to the district. Its officials believe that this arrangement will avoid the tensions and confusion about lines of authority reported earlier.

The most significant change since 1985 is that LCs are spending less time helping teachers to improve their classroom practices and more on routine administration. The World Bank expressed concern that the innovative features of this position, the reason for its creation, were disappearing: "The sparse documentation available suggests that LCs are being used more to monitor teacher attendance and for record keeping than to assess pupil achievement or to introduce qualitative reforms...."[8] Instead each year more of them seem to be acting as inspectors and checkers rather than the helpful counselors they were meant

to be.

One reason may be that district education offices want to convert LCs from innovators to administrators. Working in a system that prizes administration and faced with an innovation that they do not understand district officials can chip away at innovation until the coordinators resemble the supervisors they already know. Given the pressures on them to carry out complex innovations, the coordinators, too, may find it more comfortable to be conventional supervisors than catalysts of change. The system within which they work pushes them away from the role of helper to teachers and towards actions manifesting authority and control. The LCs may also feel pride in acting like the Assistant Education Officers or Sub Division Education Officers, who hold higher grades and whose presence commands immediate respect. In 1992 several senior provincial officials reported that LCs were acting more like inspectors than change agents. One noted that district officials were asking LCs to take messages to schools, a task not in their original job definition.

Other difficulties have plagued this innovation. Provincial officials complained that they have not been able to provide adequate transportation for female LCs and AEOs. In Punjab male LCs were given bicycles and male AEOs motorcycles, both of which helped them to reach their schools. For cultural reasons neither method of transportation was suitable for women. As a result female LCs and AEOs could not visit their schools as often as male supervisors. Findings to be reported later suggest that the

smaller number of visits to schools by rural female LCs reduced their chances to change the behavior of teachers.

Another problem concerns the evaluation of the work done by LCs. In Sindh the official responsible for evaluation, the Sub Division Education Officer, supervises 10 to 17 LCs. Because of their own heavy work load, SDEOs find it hard to visit the schools for which their LCs are responsible and ask teachers about their performance.

Nevertheless LCs do visit schools and make suggestions to teachers about how to improve their pedagogy. If they do what is expected of them in the schools, the number of visits they make should be related to student achievement.[9] The school survey shows that scores on achievement tests for mathematics 4 and science 4, but not mathematics and science 5, rose with the number of those visits. This finding does suggest that Learning Coordinators can make a difference for what students learn.

With information from the BRIDGES survey and PEP, Nawaz carried out a more precise comparison of schools that did and did not have LCs.[10] In the following summary of his results, schools with Learning Coordinators will be called LC Schools and those without them Non-LC schools.

LC schools had significantly more visits by Learning Coordinators and supervisors than Non-LC schools. A comparison of all LC and Non-LC schools showed no significant differences in achievement on the four tests. However, when the schools were divided by urban and rural location, rural LC schools had higher

scores on mathematics 4 and science 4. On mathematics 5 and science 5 in rural areas and on all four tests in urban areas there were no differences.

When schools were grouped by their gender male LC schools had significantly higher scores than male Non-LC schools on mathematics 4 and about the same scores on both tests for grade 5. Female LC schools were no different from female Non-LC schools on any of the four tests. The most likely reason is that, because they lacked means of transportation, female coordinators made fewer visits to schools than male coordinators. Thus visits by Learning Coordinators showed the strongest relationship with mathematics and science achievement in grade 4 of rural male schools. With all students in grade 5, in all urban schools, and with grade 4 in rural female schools the number of visits was unrelated to achievement.

The theory behind this innovation suggests one explanation for the findings on grade 4: LCs helped teachers learn new or improved classroom practices. If this theory is correct, teachers in LC schools should be more likely than those in Non-LC schools to report learning new teaching methods after visits by LCs.

Over 80 percent of the teachers in LC schools did report learning new methods after those visits in comparison with only 50 percent in Non-LC schools. This difference is statistically significant. The gap between LC and Non-LC schools was even greater in rural male schools.

What teaching methods did the teachers learn? When Nawaz

compared the classroom practices of LC and non-LC teachers he found differences on just two: the exercise number the class had reached in mathematics and the number of mathematics problems assigned as homework. Teachers in LC schools had covered significantly more exercises in mathematics than those in Non-LC schools. Teachers in Non-LC schools had assigned more mathematics problems per day as homework than those in LC schools. For the total sample of teachers the number of exercises covered in mathematics was positively related only to the achievement test scores on mathematics 5. The number of problems assigned in mathematics was not related to any of the achievement tests. LC and Non-LC schools showed no differences in science achievement on questions about curriculum coverage and numbers of problems per day in science.

If the pattern of earlier results holds true, differences between LC and non-LC teachers should be greatest in rural male schools. The total sample of teachers showed no differences between the two groups in whether they used blackboards; had a teaching kit in their schools; had been trained in how to use that kit; and ever used it in class.[11] Nor were there differences in the number of lessons in which teachers used the kit. In rural male schools LC teachers were more likely than Non-LC teachers to have received training in how to apply the teaching kit and to have used it in class. Moreover, LC teachers used it in twice as many lessons a year as Non-LC teachers: 11 compared to 5 and a half.[12]

Was training in how to apply the teaching kit and its use in class related to student achievement? The total sample of teachers indicated no differences between those who used the kit and those who did not on any of the achievement tests. In rural male schools, however, students of teachers who had ever used the teaching kit had significantly higher scores on three of the four tests: mathematics 4, science 4, and science 5. Teachers who were trained to use the teaching kit, more commonly found in LC than Non-LC schools, also had students with significantly higher scores on science 4 and mathematics 5.

Having Learning Coordinators assigned to schools also affected another teaching practice: using student monitors in classes not being taught by the teacher. This practice occurs most often when a teacher is responsible for several grades and wants to teach only some of the pupils. Student monitors maintain discipline and help with simple assignments, such as recitations from textbooks. The greater the number of hours students spend with monitors the less they spend with teachers. The students' opportunities to learn may decrease accordingly.

In the total sample of teachers those in LC schools were significantly more likely to use monitors than those in Non-LC schools. The two types of schools showed no difference in the number of hours per week that teachers used monitors. Neither the use of monitors nor the number of hours they were used per week were related to any of the achievement tests.

In rural male schools LC and Non-LC teachers did not differ

in whether they used monitors, but the Non-LC teachers used them more hours a week.[13] For those schools achievement test scores on all 4 tests declined as the number of hours rose. This negative relationship was significant for mathematics 4 and 5 and science 4.[14] Thus in rural male schools the presence of LCs has no relationship with assigning student monitors, but it is related to the number of hours monitors are used. The smaller the number of hours, the higher the student achievement scores on three of the four tests.

Learning Coordinators thus seem to have had a positive but not a powerful impact on the quality of teaching in their districts. They do come to schools and many do try to show teachers how to improve their classroom practices. The survey findings for all schools show a positive relationship between the number of their visits and two achievement tests: mathematics 4 and science 4. Close analysis of districts that had and did not have coordinators indicates that the relationship between their visits and achievement was significant only in rural male schools. In all urban and in rural female schools whether or not the school had an LC was not related with either teaching practices or student achievement.

In short, LCs have not lived up to their promise as leaders. Many make so few visits to schools that they are not in a position to have any long-term influence on teachers. Even if they come one day a month, which most do not, their suggestions to teachers may be forgotten between visits. Teachers are most

likely to change their classroom practices when they are not only given a suggestion about what to do, but a chance to carry it out over several days or weeks. Observation by LCs or other outsiders during this time will help to to ensure that the teacher carries out the practice and does not relapse into earlier behavior.

School Heads

School heads have the most ambiguous position of any officials in Pakistan's schools. Though their titles suggest authority--headmasters, headmistresses, head teachers--they usually have none. They become school heads because they are the senior teacher in the school. If they move to a school where they are less experienced than another teacher, they will no longer be heads. Most are full-time teachers who handle some administrative tasks, such as sending in attendance records to the district education office. They rarely supervise other teachers, help them develop greater self-confidence and better teaching skills, or work with them in other ways.[15] As a provincial official stated, "they have the name but not the game."

School heads in Pakistan resemble those in Thailand in 1980. At that time Thai school heads, known as principals, spent much of their time on routine paperwork and checking to see that government regulations were being followed.[16] Partly because principals were promoted into that position with no training, they provided little leadership when Thailand put in a new primary school curriculum. Frustrated with their lack of leadership, in 1985-86 the government required all principals to

take an inservice training program and set conditions, such as examinations, that made them more accountable for student performance. It also established minimal qualifications for new principals and required that they, too, finish a training program in educational administration. At the same time the school system put much more emphasis on testing and judged the principals by how well their schools scored on the tests. These changes made clear what was expected of principals and made them pay closer attention to student achievement.

Only 6 percent of school heads in Pakistan had any training in school administration. In a typical week, according to the BRIDGES survey, they spent over 24 hours on teaching their own classes and substituting for absent teachers; 5 hours on school administration; 4 hours on keeping discipline; 3 hours on supervising teachers; 2 hours on preparing lesson plans; and less than an hour on fund-raising. Most were full-time teachers who did some administration but did not try to change the behavior of their colleagues in the same school. They accepted the school as it was and kept it going under the rules set by the province. They were not trained to be leaders, did not see themselves as leaders, and did not act like leaders.

A few school heads, particularly in large schools, taught less than full-time and supervised the performance of their teachers. In those settings the number of hours that the head supervised teachers was positively related to student achievement tests for mathematics and science in grade 5. While the school

heads averaged only about 3 hours per week on supervising teachers, this positive relationship suggests that when they make a deliberate effort to improve the quality of teaching they may also be helping their students to learn.

In 1992 meetings provincial and federal educational officials in Pakistan maintained that school heads should be able to supervise their schools and check the quality of teaching, but that they had neither the authority nor the training to do so.[17] There was general agreement with this statement by an official in Sindh:

> We want head teachers to become leaders but they are not aware of their duties as leaders. They need continuing training to be leaders.

Fakhar Imam, federal Minister of Education, suggested that, given the high costs of training all school heads in Pakistan, much could be gained by beginning with heads of schools with 3 or more teachers. Others proposed that the provinces set up a separate personnel cadre for school heads and give them the training necessary to make them leaders. All who spoke on the subject admitted the deficiencies of the present system and felt that it should be changed.

Conclusions and Implications

School organization in Pakistan is mostly administration. Management, with its assumption that schools should adapt to changing environments, has little resonance in Pakistan's education bureaucracies. The school systems put first emphasis on compliance with rules and little on changing procedures to fit

shifting conditions. Leadership is also a foreign idea. Except in discussions about Learning Coordinators, whose work has some elements of leadership, BRIDGES researchers rarely heard the word and seldom saw the behaviors it implies.

Several steps can be taken to turn Learning Coordinators into leaders. First, provinces must have a clear definition of a Learning Coordinator and provide the training necessary to meet its requirements. By 1992 what began as a coherent innovation in 1979 had developed so many mutations that the original concept was hardly recognizable. Some LCs had no training at all, others received the original training from PEP, and still others received different kinds of training. Some carried out their work under PEP, some were attendance checkers with the name of Learning Coordinators, and others were given different names but expected to perform as LCs. With such confusion it is hardly surprising that this innovation has still not left a uniform mark on primary education.

Provincial officials, especially District Education Officers and their staff, must also develop a better understanding and appreciation of what Learning Coordinators are and do. The way this innovation was introduced left many feeling that it was a foreign element dropped into Pakistan by the World Bank. Having the coordinators report to the Project Implementation Unit of PED strengthened the feeling that they were not really part of local school districts.

Provinces might promote greater understanding and acceptance

of Learning Coordinators by organizing brief workshops about them for DEOs and other key administrators. They could inform those responsible for school administration about the reasons for Learning Coordinators and about their mission in the schools. The educational impact of the workshops could be increased by bringing provincial and district officials together with a few Learning Coordinators and, if there is one, the head of the Project Implementation Unit for PED. In that setting the problems caused by Learning Coordinators could be aired by their critics and handled by PEP and the coordinators themselves. As a side effect provincial and district officials might learn more about how leadership can come about in their regions.

With no clear definition of who they are and what they are supposed to do, school heads are adrift in the educational system. Most define themselves as teachers, some supervise other teachers, and few act as a managers or leaders.

To have any real impact a training program for school heads must be part of a broader effort to promote management and leadership in the provinces and districts. Instead of issuing orders that school heads be trained, federal and provincial officials must change their own styles of operation. If they want school heads to become leaders, they must abandon organizational systems that reward conformity and punish innovation. Without such changes the heads will dutifully attend training courses, return to their schools, and revert to the same behavior they had before the training.

In Thailand creating instructional leaders in schools required changes not only in school heads but in the entire organization within which they worked. In addition to requiring all principals to take part in an inservice training program, Thai officials specified minimum qualifications for that position and made other changes underscoring the importance of school leadership.[18] Training cannot take place in isolation. School heads will quickly discover whether inservice courses are empty rituals to satisfy administrators and international donors or part of a genuine campaign for schooling effectiveness.

Pakistan's primary schools suffer from a stagnant organization built around routine administration. Training for management and leadership at all levels can break this stagnation. With a program involving all supervisors, from the federal Minister of Education to school heads, education officials can create an organizational climate that emphasizes management and leadership in the service of better teaching and learning. The path will be long, the costs high, and the changes great, but the experience of Thailand and other countries suggests that the benefits to learning will make the sacrifices worthwhile.

NOTES

1. This essay has been prepared as part of Project BRIDGES in Pakistan, a joint effort of the Harvard Institute for International Development and the Academy of Educational Planning and Management (AEPAM) in Islamabad. Project BRIDGES is a cooperative agreement between Harvard University and the Agency for International Development (AID) in Washington. Funding for the research reported here has come from the Pakistan mission of AID. The findings are based on a random sample of about 500 schools, 1000 teachers,

11,000 students, and 288 supervisors carried out in late 1988 and early 1989; interviews with over 100 federal and provincial education officials; systematic observation of teaching practices in 32 schools; and suggestions made by federal and provincial officials during data feedback sessions organized by BRIDGES and AEPAM in January, 1992. The author is grateful to all who made this research possible, especially the field coordinators and interviewers who carried out the survey; the school heads, teachers, students, and supervisors who agreed to provide information for the survey; and to USAID in Pakistan for its encouragement and support throughout this project.

2. For a sample of readings on these themes see Perrow (1986); Bolman and Deal (1984); Warwick (1975); Likert (1961); and Kotter (1990).

3. Katz and Kahn (1978) provide a view of leadership complementary to that stated here.

4. For useful discussions of school leadership in the United States see Edmonds (1979, 1981); Purkey and Smith (1983); Smith and Piele (1989); Tyack and Hansot (1982); and Barth (1990).

5. The number of visits used in this analysis was that reported by school heads. The specific relationships were between the number of visits by a given supervisor and the mean scores obtained in the school on tests in mathematics and science for classes (grades) 4 and 5.

6. For details on the implementation of this innovation, including a discussion of its strengths and problems, see Warwick, Reimers, and McGinn (1991).

7. Mosque schools involved adding the curriculum of the government primary school to about 30,000 mosques. They were to be opened in villages with no primary schools and be assigned one teacher whose salary was paid by the government. Schools would follow the usual curriculum for the province, receive free textbooks, notebooks. and uniforms, and be supervised by the district. They would normally be limited to the first three grades. The mosque leader received a small stipend for teaching the Koran and other lessons. Because the mosque assumed all expenses except those mentioned, including those for constructing and maintaining separate buildings for the schools, this innovation resulted in a significant expansion of enrollment at low cost to the government (Warwick, Reimers, and McGinn, 1991).

8. World Bank (1988), 27.

9. The interview question asked specifically about visits by Learning Coordinators and supervisors. The number of visits was that reported by the school head. The two positive relationships

are statistically significant.

10. Nawaz (1990).

11. The teaching kit is a box of about 100 items such as charts, cutouts, a flannel board, chemicals, test tubes, beakers, a magnet, and pictures of famous personalities. In late 1988 and early 1989 about 60 percent of the schools covered in the BRIDGES sample survey had teaching kits. For additional information about the implementation of this innovation see Warwick, Reimers, and McGinn (1991).

12. The differences in training to use the kit and the number of lessons in which it was used were statistically significant. The differences on whether the teachers had ever used the kit--66 percent for the LC and 47 percent for the Non-LC teachers--were of borderline significance.

13. The specific number of hours was 5.3 for Non-LC teachers and 3.7 for LC teachers. This difference was of borderline statistical significance.

14. The correlation coefficients for the rural male schools were -.40 for mathematics 4, -.31 for mathematics 5, -.37 for science 4, and -.19 (not significant) for science 5.

15. This conclusion is based on interviews with the heads of nearly 500 primary schools and discussions with federal and provincial education officials. As a provincial official in Punjab stated, "In primary schools headmasters have the name, not the game. The Assistant Education Officer assigns him his duties. He has no power to supervise the teachers."

16. For details on Thailand see Wheeler, Raudenbush, Bhumirat, and Tsang (1990), 19-20; and Chantavanich, Chantavanich, and Fry (1990).

17. These meetings were organized with educational officials in all four provinces and in the federal government to discuss the findings of BRIDGES research in Pakistan. One topic covered was school organization, including the role of external supervisors, Learning Coordinators, and school heads. The comments reported below came from those discussions.

18. See Wheeler, Raudenbush, Bhumirat, and Tsang (1990).

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