National Study of Delinquency Prevention in Schools

Chapter 6
School-level Correlates of Implementation Quality

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School-Level Correlates of Implementation Quality

This chapter focuses on the school as a social organization. The school is the unit within which instruction and all programs take place. The school typically occupies a single location in the community and typically has a single leader who supervises all personnel and students in the school. Accordingly, we now examine the school as the unit of analysis in the examination of prevention program quality.

Recall that this inquiry is structured by hypotheses that the following variables predict the strength of program or activity implementation:

1. Organizational capacity (morale, staff stability, history of failed or successful programs in the past).
2. Leader and staff traits and past accomplishments.
3. Budget and resources.
4. Organizational support (training, supervision, principal support).
5. Program structure – manuals, implementation standards, quality control mechanisms.
6. Integration into normal school operations, local initiation, and local planning.
7. Program feasibility (match between program design features and regular activities of schools, few obstacles).
8. Level of disorder.

Fuller accounts of these hypotheses may be found in Chapter 1 (pp. 1.11 - 1.15) and Chapter 5 (pp. 5.1 - 5.3).

Measurement of School-Level Variables

Three of these sets of variables can only be measured at the school level. The school-level measurement of all of these sets of variables is described in the following paragraphs. Fuller accounts of the measures devised specially for the present study are found in Appendix E.

Organizational capacity refers to the degree to which a school has the social organizational infrastructure to carry out complex activities well. We identified several more specific indicators of organizational capacity to operationalize the organizational capacity construct.

(a) Morale characterizes the school in terms of the degree of *esprit de corps,* the sense of commonality of purpose, and the sense that the members of the organization can depend upon each other to willingly perform as required to achieve common goals. The schools' teachers completed the Morale scale of the Effective School Battery (G. Gottfredson, 1999).

(b) The Organizational Focus scale (G. Gottfredson & Holland, 1997) is also used as a measure of organizational capacity. The Organizational Focus scale was constructed to provide a measure of the degree to which an environment has a focused set of consistent and explicit goals (versus conflicting and poorly defined goals). It was completed by teachers.

(c) To measure the school's history of successful versus failed programs, we constructed several scales. One pair, labeled School Amenity to Program Implementation, was completed by the principal and by the schools' teachers in phase two surveys. It includes items such as "Faculty are open to identifying and trying to solve problems," and "Teams of faculty members work together to accomplish something of importance." A scale titled Teacher-Administration Obstacles to Program Development contains items such as "Getting cooperation from teachers is like pulling teeth,"(+) and "Every teacher can be counted on to help" (-). It was completed by principals in the phase 1 survey. The phase 1 principal survey was also the source of a scale called School Capacity for Program Development. This scale contains items such as "The school obtains many resources from the community," and items about how easy it is to recruit first-rate staff and the degree of parent involvement. A brief scale called Open Problem Identification, completed by the principal in the phase 1 survey, concerns the extent to which the school has clearly identified and agreed upon problems to address. A two-item Teacher-Principal Communication scale, completed by the principal in phase one, assesses the degree to which faculty communicate directly with the principal. Teacher turnover, calculated from principal reports in the phase one questionnaire, was used as an inverse measure of staffing stability.[1] This was augmented by the average amount of turnover among implementing personnel reported in the phase two activity coordinator survey. Finally, school enrollment was examined as many things seem more difficult to accomplish in large organizations. All of the foregoing measures are expected to be positively correlated with quality of implementation, except turnover, school size, and Teacher-Administration Obstacles to Program Development which are expected to be negatively correlated with implementation quality.

Leadership traits and accomplishments is, similarly, usefully considered a school-level variable; schools generally have a single leader. Several more specific indicators were examined.

(a) The Administrator Leadership scale of the Effective School Battery (G. Gottfredson, 1999) was completed by teachers. This scale captures information about the extent to which the principal is seen as a good leader by the school's faculty.

(b) Four brief scales constructed for the present research intended to assess facets of principal leadership behavior based on the self-reports of principals in the phase two questionnaire. The Supervision and Feedback subscale reflects a principal's emphasis on discussing quality of work performance with staff members, formally reviewing teacher

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[1]Principals reported the number of full time teachers in the current (f_1) and previous (f_0) year. Separately they reported the number of teachers new to the school this year (n_1). Turnover was calculated as follows:

for $f_1 - f_0 > 0$, $t = 100[n_1 - (f_1 - f_0)]/f_0$; (1)

for $f_1 - f_0 \# 0$, $t = 100n_1/(f_0 + (f_1 - f_0)$. (2)

Small negative values were trimmed to 0 for a few cases. t was made missing for the nine schools with $t = 100$, assuming errors in reporting. This made no substantive difference in the correlations reported here.

performance, and communicating performance expectations. It resembles the "initiating structure" dimension in Fleishman's (1953) two-factor taxonomy of leadership behavior. The Consideration subscale reflects a principal's emphasis on checking with teachers before making changes that affect them and being patient and helpful to faculty. It resembles the "consideration" dimension in Fleishman's two-factor taxonomy. The Presence and Visibility subscale reflects a principal's emphasis on observing teachers' instruction and classroom management, planning staff meetings, and using reason or passion to generate staff commitment to tasks. It was constructed to assess the first factor in a job analysis of principals' work reported by G. Gottfredson and Hybl (1987). The Planning subscale reflects a principal's emphasis on formally assessing the needs and problems of the school, evaluating the effectiveness of existing practices, discussing alternative plans, and setting school improvement goals. It is also based on a factor from the Gottfredson and Hybl job analysis. These apriori subscales were empirically found to have strong intercorrelations in the present principal self-reports. Accordingly, a summary scale was composed for use in some analyses, the Total Leadership Behavior scale.

(c) Measures of non-delegation and of span of control were constructed from information provided by principals in the phase one Activity Detail Booklet. We observed that some principals listed themselves as the knowledgeable person about many or all of the activities they listed. In telephone followups we observed that it was difficult to convince some principals that other individuals might be able to provide information about a program; many indicated that only they knew enough about the activity to describe it. The Non-Delegation measure is the percentage of activities mentioned for which only the principal was identified as an informant. The Broad Span of Control measure is the percentage of prevention activities for which the principal was identified as an informant. These *ad hoc* measures are not rooted in prior research, but we speculated that programs would not be implemented well in schools where principals tended not to delegate or had very large spans of control.

(d) The Accomplishment Record scale summarizes information about a range of past accomplishments, such as having conducted training for other principals, serving as an officer in an educational organization or consultant on educational problems, or having presented or published papers in educational journals or magazines. It is based on a scale developed earlier by G. Gottfredson (1994).

(e) The Conscientiousness scale (Goldberg, 1992) is based on principal self-descriptions. High scorers are efficient, organized, and dependable; low scorers are careless, disorganized, and inconsistent.

Budget and support. The measures used in examining correlates of the quality of school-wide disciplinary practices differed somewhat from those used to examine the correlates of the average quality of implementation of discretionary prevention programs. For discipline practices, the reports of principals about sources of support for disciplinary practices were obtained from the phase two principal questionnaire. They parallel the reports for specific discretionary activities examined in Chapter 5. For average implementation of discretionary

programs, aggregated (averaged) reports about funding and budget control in the activity coordinator survey were used.

Organizational support. A number of indicators were used to measure organizational support. These include the aggregated reports of teachers and activity coordinators, and they include reports by principals.

(a) Training in Classroom Management or Instruction and Training in Behavior Management are based on the aggregated reports of teachers about the extent of training in these matters.

(b) Amount of Training for Activities and Quality of Training for Activities are based on the aggregated reports of activity coordinators.

(c) The Quantity and Quality of Training in School Discipline scale is based on the reports of the principal in the phase two questionnaire.

(d) Level of Supervision and Principal Support for Program are based on the aggregated reports of activity coordinators. Accordingly, they reflect the average level of supervision and the average level of support perceived by coordinators of various programs or activities in the school.

(e) Monitoring of Implementation of Discipline Policies is based on the principal's phase two report of the degree of monitoring of practices for conformance with policies.

(f) Finally, whether the principal's own performance appraisal depends on the management of discipline in the school according to principals' reports in the phase two questionnaire was used as an indicator of organizational support from a level higher than the school.

Program structure was measured at the school level by averaging the Scriptedness score from all of the activity coordinators' reports for the school.

Integration with school operations was assessed in a variety of ways, including the reports of teachers, the principal, and activity coordinators.

(a) The Planning scale from the Effective School Battery (G. Gottfredson, 1999) was used to summarize teachers' reports about the extent to which the school makes plans and takes action to solve problems.

(b) The measures of integration of each prevention activity with school operations described in Chapter 5 were aggregated to the school level to provide school-level measures of all of these indicators. The resulting aggregated activity coordinator reports were used in analyses of quality of discretionary activities.

(c) Degree of local initiative in the use of Safe and Drug Free Schools funds is based on the principals' reports of whether the school informed the SDFS coordinator how the school would use funds, whether the school chose from a menu, or whether the coordinator told the school which practices to use.

(d) The Local Development of Discipline Practices scale is based on principals' reports in the phase two questionnaire. It parallels the measure examined in Chapter 5 based on activity coordinators' reports.

Feasibility of activity. Measures of the feasibility of each prevention activity described in Chapter 5 were aggregated to the school level to provide school-level measures of all of these indicators. The resulting aggregated activity coordinator reports were used in analyses of quality of discretionary activities.

Level of disorder or problems in the school. A variety of measures of school disorder and levels of problem behavior were examined. These are based on student, teacher, and principal reports.

(a) Student and teacher School Safety scales from the Effective School Battery (G. Gottfredson, 1999) were used to assess perceptions of the safety of the school. In low scoring schools, many places in the school are perceived as unsafe and students fear that they will be hurt or bothered at school.

(b) The Classroom Orderliness scale (D. Gottfredson, Gottfredson, & Hybl, 1993) from the Classroom Environment Assessment was completed by teachers to provide a measure of classroom orderliness. In low scoring schools much classroom time is directed to coping with misbehaving students and students who are disruptive; in high scoring schools students pay attention in class.

(c) Students completed the Victimization scale from What About You (Form DC, G. Gottfredson & Gottfredson, 1999), and teachers completed the Victimization scale from the School Action Effectiveness Study questionnaire (G. Gottfredson, 1982). Both scales reflect the variety of victimization experiences of respondents – ranging from minor theft, through threats, to attacks.

(d) Two scales pertaining to practices that may alter the composition of a school's studentry were developed for the present research. A Selectivity scale, based on principal reports in the phase one survey, reflect steps taken by a school to improve the input characteristics of its students by such means as specializing in attractive programs, selective admissions practices, religious or political preferences, scholarships, or recruitment programs. A Problem Student Magnet scale, based on principal reports in the same survey, reflects the assignment of students with educational, behavioral, adjustment or learning problems – or youths under court or juvenile services supervision – to the school.

(e) A School Crime scale is based on principals' reports in the phase two survey of the number of attacks or fights involving a weapon, attacks or fights without a weapon, robberies, thefts or larcenies, and vandalism that were reported to the authorities. The score is the sum of the log-transformed number of incidents of each type.

(f) A Gang Problems scale is based on principals' phase two survey reports of gang problems in the school and in the community.

(g) The Last-Year Variety of Drug Use scale from What About You (G. Gottfredson & Gottfredson, 1999) is based on student reports of drug use in the past year and uses "variety" scoring (Hindelang, Hirschi & Weis, 1981).

(h) A Self-Reported Delinquent Behavior scale from the School Action Effectiveness Study (G. Gottfredson, 1982) is based on student reports of their delinquent behavior in the last year, including behaviors ranging from minor theft to robbery.

(i) Three measures based on 1990 census information for the zip code area in which each school was located were developed. Simonsen (1998) matched school zip codes with census data.[2] Three orthogonal factor scores were developed as follows: (1) Concentrated Poverty and Disorganization marked by receipt of public assistance income, high ratio of households with children female-headed to children households with husband and wife present, a high proportion of households below median income, a high ratio of persons below 1.24 times the poverty income level to persons above that level, high numbers of divorced or separated persons relative to married persons with spouse present, high male and female unemployment, and a low proportion of owner-occupied housing units. (2) Urbanicity marked by a high proportion of the population living in an urbanized area, large population size, and a high proportion of persons aged 25 years and over college educated. (3) Immigration and Crowding marked by a high ratio of households with five or more persons to other households and a low proportion of non-English language households.[3]

Correlations Between School Characteristics and Quality of School-Wide Discipline Practices

In Chapter 3 we reported that school-wide disciplinary practices differ considerably according to school level. Accordingly, information about the correlates of the quality of discipline practices is shown separately for secondary schools in Table 6.1 and for elementary

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[2]She used information about county of location together with the zip code to identify census areas. It was not possible to geocode 35 schools because their zip codes did not occur in the Census Bureau's files due to new or isolated postal codes.

[3]The first and third factors had long tails and marked skew. Their standard scores were trimmed to the range ±3.0.

Table 6.1

Correlations Between Measures of School Characteristics and Practices and Quality of Implementation of School-Wide Discipline Practices, Secondary Schools

Predictor category and hypothesized predictor of implementation quality [a]	Adequacy composite	Proportion of "best practices" used: Communi-cation and documenta-tion	Range of appropriate responses to misconduct	Range of responses to desirable conduct	Disciplinarian consistency	Predictable disciplinary decision making
Organizational capacity						
Morale, teachers	.14**	-.10*	-.05	.12*	.15**	.03
	344	367	362	372	366	367
Organizational focus, teachers	.19**	-.04	-.04	.12*	.08	.07
	344	367	362	372	366	367
School amenability to program implementation, principal (2)	.22**	.15**	.06	.16**	.06	.11*
	424	461	451	464	450	461
School amenability to program implementation, activity coordinators	.04	.01	-.05	.12*	.05	-.03
	336	362	358	366	356	363
Teacher-administration obstacles to program development, principal (1)	-.13*	-.02	.01	-.08	-.13*	-.08
	325	347	347	354	342	352
School capacity for program development, principal (1)	.11*	-.02	-.01	.09	.12*	.04
	338	361	359	367	359	366
Open problem identification, principal (1)	.15**	.26**	.23**	.10	.03	.12*
	345	370	369	376	366	374
Teacher-principal communication, principal (1)	.12*	.04	-.05	.13**	.07	.14**
	354	381	379	387	376	386
Teacher turnover, calculated from principal reports (1)	.03	.04	-.02	.11*	-.04	.01
	340	366	363	371	362	370
School enrollment, principal (1)	.02	.07	.22**	-.12*	-.08	-.01
	359	387	384	393	382	391
Principal leadership, personality style, and record of accomplishment						
Administrator leadership, teachers	.15**	-.03	-.01	.10	.04	.04
	344	367	362	372	366	367
Principal's leadership emphasis, principal (2)						
Supervision and feedback	.21**	.28**	.16**	.18**	.06	.11*
	426	462	453	466	452	465
Consideration	.23**	.08	.08	.25**	.08	.12**
	426	462	453	466	452	465
Presence and visibility	.17**	.22**	.16**	.14**	-.05	.06
	427	462	453	466	454	466
Planning	.21**	.26**	.15**	.20**	.00	.12**
	426	462	453	466	452	465
Total leadership behavior	.25**	.27**	.17**	.24**	.02	.13**
	425	459	450	463	450	463
Non-delegation, calculated from principal data (ADB) [b]	-.09	-.02	-.08	.10	-.03	-.11*
	367	396	392	402	391	400

continued . . .

Table 6.1 *(continued)*

Correlations Between Measures of School Characteristics and Practices and Quality of Implementation of School-Wide Discipline Practices, Secondary Schools

Predictor category and hypothesized predictor of implementation quality [a]	Adequacy composite	Proportion of "best practices" used: Communication and documentation	Range of appropriate responses to misconduct	Range of responses to desirable conduct	Disciplinarian consistency	Predictable disciplinary decision making
Broad span of control, principal (ADB) [c]	.00	.04	.06	.05	.01	-.03
	367	396	392	402	391	400
Accomplishment record, principal (2)	.20**	.13**	.29**	.08	.01	.04
	426	463	454	466	452	464
Conscientiousness, principal (2)	.16**	.20**	.09	.06	.06	.07
	423	459	450	462	449	460
Budget and support						
Source of resources for developing and applying school rules and disciplinary practices, principal (2)						
School district's budget allocation for the school	.15**	.14**	.24**	-.03	.05	.01
	416	451	442	454	440	453
Special funding through the Safe and Drug Free Schools and Communities program	.04	.12*	.18**	.08	-.07	-.02
	407	440	431	443	431	442
Other external funding from government	.06	.07	.13**	.12*	-.01	-.02
	397	428	421	431	419	430
Other external funding from private or charitable contributions such as foundations, local community organizations, or private citizens	.07	.06	.10*	.04	-.01	.03
	395	425	419	428	416	427
Fund raisers (e.g., cake sales)	.06	.01	.08	.14**	-.05	.06
	395	425	419	428	416	427
Safe and Drug-Free School and Community Act funds support any prevention activities in the school, principal (2)	.12**	.14**	.20**	.01	.02	.05
	427	464	454	467	453	465
Organizational support						
Training in classroom management or instruction, teachers	.11*	.07	.12*	.08	-.07	-.01
	358	385	377	387	382	384
Training in behavior management, teachers	.04	.05	.06	.09	-.06	.02
	358	385	377	387	382	384
Quantity and quality of training in school discipline, principal (2)	.28**	.25**	.28**	.12*	.06	.17**
	361	381	373	384	375	385
Supervision or monitoring, activity coordinators	.11*	.12*	.13*	.11*	-.05	.07
	336	364	360	368	356	365
Monitoring of implementation of discipline policies, principal (2) [d]	.26**	.22**	.21**	.11*	.03	.21**
	422	459	448	461	448	460
Principal's performance appraisal depends on discipline management, principal (2) [e]	.11*	.13**	.19**	-.01	-.03	.06
	424	459	451	463	450	461

continued . . .

Table 6.1 *(continued)*

Correlations Between Measures of School Characteristics and Practices and Quality of Implementation of School-Wide Discipline Practices, Secondary Schools

Predictor category and hypothesized predictor of implementation quality [a]	Adequacy composite	Proportion of "best practices" used: Communi-cation and documenta-tion	Range of appropriate responses to misconduct	Range of responses to desirable conduct	Disciplinarian consistency	Predictable disciplinary decision making
Integration with school operations						
Planning, teachers	.19**	.07	.05	.19**	.08	.01
	344	367	362	372	366	367
Degree of local initiative in use of SDFS funds, principal (2) [f]	.02	-.16*	-.13	.02	.17*	-.01
	168	183	181	185	177	184
Local development of discipline practices, principal (2)	.18**	.10*	.23**	.16**	-.06	.13**
	426	462	453	465	452	464
Responsibility for developing discipline practices, principal (2)						
Administrators	-.03	.06	.02	-.02	-.02	-.05
	426	462	453	465	452	464
Teachers	-.13**	-.01	-.10*	-.14**	-.02	-.12**
	426	462	453	465	452	464
Other school staff	-.14**	-.14**	-.16**	-.16**	.04	-.09*
	422	458	449	461	448	460
Students	-.17**	-.08	-.23**	-.08	.07	-.10*
	424	459	450	462	450	461
Parents	-.12*	-.11*	-.23**	-.11*	.06	-.09
	423	459	450	462	449	461
District personnel	-.05	-.15**	-.09*	-.03	.02	.06
	417	450	442	453	439	453
Researchers or experts	-.10*	-.04	-.15**	-.10*	.09	-.06
	415	448	440	451	438	450
Variety of information sources used, principal (2)	.23**	.20**	.28**	.09	.05	.11*
	426	458	449	460	447	463
Level of problems in school						
Safety, students	-.03	-.11	-.14*	-.16**	.16**	.04
	271	288	282	290	286	288
Safety, teachers	.02	-.14**	-.09	.04	.14**	-.02
	342	365	360	370	364	365
Classroom orderliness, teachers	.01	-.18**	-.04	-.06	.13*	.05
	344	367	362	372	366	367
Victimization, teachers	-.01	.13*	.08	.10	-.18**	-.02
	344	367	362	372	366	367
Victimization, students	.09	.08	.15**	.12*	-.03	-.06
	271	288	282	290	286	288
Selectivity, principal (1)	-.06	-.22**	-.09	-.04	-.03	-.02
	352	380	377	386	375	384
Problem student magnet, principal (1)	.12*	.04	.14**	.03	.04	.02
	357	384	381	390	379	389
School crime, principal (2)	.12*	.06	.30**	.03	-.03	-.01
	387	418	412	423	411	419

continued . . .

Table 6.1 *(continued)*

Correlations Between Measures of School Characteristics and Practices and Quality of Implementation of School-Wide Discipline Practices, Secondary Schools

Predictor category and hypothesized predictor of implementation quality [a]	Adequacy composite	Proportion of "best practices" used: Communi-cation and documenta-tion	Range of appropriate responses to misconduct	Range of responses to desirable conduct	Disciplinarian consistency	Predictable disciplinary decision making
Gang problems, principal (2)	.05	.07	.10*	.06	-.09	.01
	424	460	452	464	451	462
Last-year variety of drug use, students	.05	.00	.03	.08	-.03	.06
	271	288	282	290	286	288
Self-reported delinquent behavior, students	.04	.00	.09	.12*	-.06	-.02
	271	288	282	290	286	288
Community characteristics						
Concentrated poverty and disorganization	-.07	-.01	-.06	-.01	-.12**	.02
	412	449	440	453	438	450
Urbanicity	-.01	.05	.05	.04	-.06	-.10*
	412	449	440	453	438	450
Immigration and crowding	.06	.00	.10*	.09	-.07	.02
	412	449	440	453	438	450

Note. Number of schools appears below each pairwise correlation.

[a] Teachers = teacher questionnaire, principal (1) = principal questionnaire for program identification, principal (2) = principal questionnaire (phase 2), students = student questionnaire, activity coordinators = activity questionnaire, ADB = activity detail booklet, SDFS = Safe and Drug Free Schools.

[b] Percentage of prevention activities for which the only knowledgeable person named was the principal.

[c] Percentage of prevention activities for which the principal was named as a knowledgeable informant along with another person.

[d] Principal's report of the degree of monitoring of disciplinary practices for conformity with policy.

[e] Principal's report about whether his or her performance appraisal depends on performance in administering school discipline.

[f] Principal's report of whether the school informed the Safe and Drug Free Schools coordinator how it would use funds, whether the school chose from a menu, or whether the coordinator told the school which programs or practices to use. Schools not receiving SDFSC support for development of discipline practices are excluded.

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

schools in Table 6.2. The following paragraphs review the evidence about the hypothesized predictors of implementation quality.

Organizational capacity. The top panel in Table 6.1 provides considerable support for the hypotheses in the secondary school data. Of the 60 correlations reported there, 45 are in the direction predicted with 23 of these statistically significant.[4] The Morale score had correlations in the expected direction with the Adequacy Composite and with the Range of Responses to Desirable Conduct and Disciplinarian Consistency scales. An unexpected result is the ! .10 correlation between the school's Morale score and the thoroughness with which school rules are communicated and documented. Organizational Focus had correlations in the expected direction with the Adequacy Composite and Range of Responses to Desirable Conduct. The results for the Morale and Organizational Focus scales are particularly impressive because these measures are completely independent of the measures of disciplinary quality.

[4]School-level correlations are not weighted. Significance tests assume simple random sampling.

Table 6.2

Correlations Between Measures of School Characteristics and Practices and Quality of Implementation of School-Wide Discipline Practices, Elementary Schools

Predictor category and hypothesized predictor of implementation quality [a]	Adequacy composite	Proportion of "best practices" used: Communi-cation and documenta-tion	Range of appropriate responses to misconduct	Range of responses to desirable conduct	Disciplinarian consistency	Predictable disciplinary decision making
Organizational capacity						
School amenability to program implementation, principal (2)	.17*	.03	.06	.06	.15	.08
	138	154	148	152	141	152
School amenability to program implementation, activity coordinators	.05	-.07	-.04	.03	.07	.01
	131	145	140	143	134	145
Teacher-administration obstacles to program development, principal (1)	-.02	.03	.03	.05	-.07	.01
	120	132	128	130	122	131
School capacity for program development, principal (1)	.15	-.10	.03	.01	.23**	.12
	125	139	135	137	127	138
Open problem identification, principal (1)	.18*	.20*	.14	.20*	-.01	.14
	128	141	136	139	130	139
Teacher-principal communication, principal (1)	.06	-.10	.20*	.20*	.00	-.05
	133	149	144	147	135	147
Teacher turnover, calculated from principal reports (1)	-.07	-.02	.00	-.10	.00	-.02
	127	142	137	140	129	140
School enrollment, principal (1)	.14	.09	.25**	.23**	.02	.05
	136	152	147	150	138	150
Principal leadership, personality style, and record of accomplishment						
Principal's leadership emphasis, principal (2)						
Supervision and feedback	.15	.08	.05	.18*	.04	.10
	136	149	145	147	138	148
Consideration	.15	.06	.00	.14	.09	.04
	136	150	145	149	139	149
Presence & visibility	.07	.18*	.08	.18*	-.03	.04
	136	152	146	149	138	149
Planning	.17*	.19*	.18*	.19*	-.08	.07
	136	150	145	149	139	149
Total leadership behavior	.15	.14	.08	.20*	.00	.05
	135	149	144	147	137	147
Non-delegation, calculated from principal data (ADB) [b]	-.06	.00	-.15	-.08	.09	.10
	135	150	145	148	138	150
Broad span of control, principal (ADB) [c]	.02	.06	.06	-.09	.06	.04
	135	150	145	148	138	150
Accomplishment record, principal (2)	.11	.15	.06	.11	.03	-.02
	137	152	147	151	140	150
Conscientiousness, principal (2)	.15	.06	-.07	.14	.18*	.08
	138	152	148	151	141	151

continued . . .

Table 6.2 *(continued)*

Correlations Between Measures of School Characteristics and Practices and Quality of Implementation of School-Wide Discipline Practices, Elementary Schools

Predictor category and hypothesized predictor of implementation quality [a]	Adequacy composite	Proportion of "best practices" used: Communication and documentation	Range of appropriate responses to misconduct	Range of responses to desirable conduct	Disciplinarian consistency	Predictable disciplinary decision making
Budget and support						
Source of resources for developing and applying school rules and disciplinary practices, principal (2)						
School district's budget allocation for the school	.02 135	.02 151	.02 146	.02 149	.06 137	-.06 148
Special funding through the Safe and Drug Free Schools and Communities program	.19* 129	.13 143	.15 139	.15 141	-.03 131	.01 141
Other external funding from government	.28** 127	.11 142	.11 137	.18* 139	-.09 129	.02 140
Other external funding from private or charitable contributions such as foundations, local community organizations, or private citizens	.15 127	.11 141	.12 137	-.05 139	-.04 129	.11 139
Fund raisers (e.g., cake sales)	.02 125	-.06 139	.05 135	.12 137	.05 127	-.13 137
Safe and Drug-Free School and Community Act funds support any prevention activities in the school, principal (2)	.11 137	.01 154	.11 148	.15 151	-.03 139	.04 151
Organizational support						
Quantity and quality of training in school discipline, principal (2)	.21* 118	.19* 129	.21* 128	.18* 129	.04 119	.16 128
Level of supervision, activity coordinators	.11 130	.25** 144	.22* 139	.04 142	-.10 133	-.08 144
Monitoring of implementation of discipline policies, principal (2) [d]	.21* 136	.18* 153	.17* 147	.10 151	.09 139	.12 151
Principal's performance appraisal depends on discipline management, principal (2) [e]	.16 135	.14 151	.23** 145	.11 149	.02 138	.21** 150
Integration with school operations						
Degree of local initiative in use of SDFS funds, principal (2) [f]	-.20 47	.03 52	-.18 50	-.12 51	.18 48	-.22 51
Local development of discipline practices, principal (2)	.20* 140	.02 157	.24** 151	.15 155	-.01 143	.05 155
Responsibility for developing discipline practices, principal (2)						
Administrators	-.03 140	.03 156	-.08 150	-.16 154	.08 143	.04 154

continued . . .

Table 6.2 *(continued)*

Correlations Between Measures of School Characteristics and Practices and Quality of Implementation of School-Wide Discipline Practices, Elementary Schools

Predictor category and hypothesized predictor of implementation quality [a]	Adequacy composite	Proportion of "best practices" used: Communication and documentation	Range of appropriate responses to misconduct	Range of responses to desirable conduct	Disciplinarian consistency	Predictable disciplinary decision making
Teachers	-.03	-.05	-.05	-.08	.01	-.04
	140	157	151	155	143	155
Other school staff	-.14	-.09	-.24**	-.02	.05	-.02
	138	154	148	152	141	153
Students	-.20*	.03	-.17*	-.06	-.12	-.13
	136	150	146	149	139	150
Parents	-.33**	-.08	-.23**	-.23**	-.03	-.10
	136	153	147	151	139	151
District personnel	-.30**	-.20*	-.32**	-.19*	-.03	-.11
	134	149	144	146	135	146
Researchers or experts	-.18*	-.06	-.24**	-.16*	-.04	.01
	137	153	147	150	139	150
Variety of information sources used	.14	.11	.43**	.25**	-.13	-.05
	138	152	148	151	141	152
Level of problems in school						
Selectivity, principal (1)	-.13	-.01	-.18*	-.21*	.02	-.03
	134	150	145	148	136	148
Problem student magnet, principal (1)	-.04	-.02	.03	.10	-.07	-.01
	134	150	145	148	136	148
School crime, principal (2)	.15	.16	.29**	.14	-.09	.09
	135	149	146	150	138	148
Gang problems, principal (2)	.21*	.18*	.27**	.11	.03	.05
	138	154	148	152	141	152
Community characteristics						
Concentrated poverty and disorganization	.02	.15	.07	.02	-.04	-.02
	137	154	148	152	140	152
Urbanicity	-.03	.03	.04	-.04	.07	.00
	137	154	148	152	140	152
Immigration and crowding	.12	-.01	.08	.09	.05	.05
	137	154	148	152	140	152

Note. Number of schools appears below each pairwise correlation.

[a] Principal (1) = principal questionnaire for program identification, principal (2) = principal questionnaire (phase 2), activity coordinators = activity questionnaire, ADB = activity detail booklet, SDFS = Safe and Drug Free Schools.

[b] Percentage of prevention activities for which the only knowledgeable person named was the principal.

[c] Percentage of prevention activities for which the principal was named as a knowledgeable informant along with another person.

[d] Principal's report of the degree of monitoring of disciplinary practices for conformity with policy.

[e] Principal's report about whether his or her performance appraisal depends on performance in administering school discipline.

[f] Principal's report of whether the school informed the Safe and Drug Free Schools coordinator how it would use funds, whether the school chose from a menu, or whether the coordinator told the school which programs or practices to use. Schools not receiving SDFSC support for development of discipline practices are excluded.

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

Scores on the principal's School Amenability to Program Implementation scale were correlated positively with the Adequacy Composite and the Communication and Documentation, Range of Responses to Desirable Conduct, and Predictable Disciplinary Decision Making scales. The estimate of school amenability to program development based on the averaged reports of program coordinators did not perform as expected, with only its correlation with the measure of diversity of responses to desired conduct being significant. The Teacher-Administration Obstacles to Program Development scale was correlated in the expected negative direction with the Adequacy Composite and the Disciplinarian Consistency scale. The Open Problem Identification scale had moderately large correlations with the Communication and Documentation and Range of Appropriate Responses to Misconduct scales, and it had weaker significant correlations with the Adequacy Composite and the Predictable Disciplinary Decision Making scales. The Teacher-Principal Communication scale had modest correlations with the Adequacy Composite and with the Range of Responses to Desirable Conduct and Predictable Disciplinary Decision Making scales.

The hypotheses that high rates of staff turnover and large school size would predict poor implementation finds little support in the data. Correlations between teacher turnover and the measures of quality ranged from -.04 to .11, *Mdn* = .02, with the one statistically significant correlation in the direction opposite that hypothesized. Correlations between school enrolment size and quality ranged from -.12 to .22. Larger secondary schools employed a larger range of responses to misconduct and a narrower range of responses to desirable conduct.

The pattern of results for elementary schools (Table 6.2) is similar, although the measures based on teacher surveys are not available for these schools. Scores on the principal's School Amenability to Program Implementation scale were correlated positively with the Adequacy Composite. The estimate of school amenability based on the averaged reports of program coordinators had small, nonsignificant correlations of both signs with the quality criteria. The Teacher-Administration Obstacles to Program Development scale (which was expected to be correlated in the negative direction with the measures of implementation quality) had only small nonsignificant correlations with both positive and negative signs. As for secondary schools, the Open Problem Identification scale had moderate correlations (range = -.01 to .20, *Mdn* = .16) with the measures of quality. The Teacher-Principal Communication scale had modest correlations with the Range of Responses to Desirable Conduct and Range of Appropriate Responses to Misconduct scales.

And as for secondary schools, the hypotheses that high rates of staff turnover and large school size would predict poor implementation are unsupported by the data. Correlations between teacher turnover and the measures of quality ranged from -.10 to .00, *Mdn* = -.02, none statistically significant. Correlations between school enrolment size and quality ranged from .02 to .25. Larger elementary schools employed a larger range of responses to misconduct and to desirable conduct.

Principal leadership, style, and accomplishments. Table 6.1 implies considerable support for the hypothesized relations between principal leadership and the quality of school-wide

discipline practices. Correlations between principals' self-reports of all four facets of leadership (and the Total Leadership Behavior scale) with facets of quality range from -.05 to .28 (*Mdn* = .16), with 22 of the 30 correlations statistically significantly different from zero in the expected direction. In interpreting these results, notice that both the quality of school-wide discipline measures and the leadership measures are based on principals' reports. The independent aggregated teachers' ratings in the Administrator Leadership scale is significantly correlated only with the Adequacy Composite. The teacher-based Administrator Leadership scale is not available for elementary schools, but the correlations in Table 6.2 also support the hypothesized link between leadership behaviors and quality of school-wide discipline arrangements. All but four of the 30 correlations are in the expected direction, with eight of the correlations significant despite the relatively small number of elementary schools. In contrast, the ad hoc measures of span of control and non-delegation had relatively small correlations with inconsistent sign with the various criterion measures. The one significant correlation is, however, in line with expectation: Principals who apparently do not delegate are somewhat less predictable in their disciplinary decision making.

The expectation that principals who have a record of accomplishing more in the past would lead schools with better quality disciplinary practices is supported particularly for secondary schools, where correlations between Accomplishment Record scores and measures of quality range from .01 to .29 (*Mdn* = .10). In elementary schools the correlations range from -.02 to .15 (*Mdn* = .08), none reaching significance. The expectation that principals' conscientiousness would predict better quality discipline practices is also supported particularly for secondary schools, where correlations range from .06 to .20 (*Mdn* = .08). The Conscientiousness scale correlates a significant .16 with the Adequacy Composite and .20 with the Communication and Documentation scale. For elementary schools, the correlations are of about the same size (range = -.07 to .18, *Mdn* = .11), with only the correlation between the Conscientiousness score and the Disciplinary Consistency score reaching significance.

Budget and support. Results in Tables 6.1 (secondary) and 6.2 (elementary) for expected links between funding and quality of disciplinary procedures is mixed. No indicator of funding is correlated beyond the extent that can plausibly be attributed to chance with the Predictable Disciplinary Decision Making scale or the Disciplinarian Consistency scale for secondary or elementary schools. For the other facets of disciplinary quality, however, correlations are generally positive and sometimes substantial. Quality is higher in secondary schools when resources for developing and applying school rules and disciplinary practices comes from the school districts' budget allocations for the schools, suggesting that disciplinary practices in secondary schools are better in districts devoting resources to them. But the data for elementary schools do not support an association between local district budget allocation and quality of disciplinary practices. Funding through the Safe and Drug Free Schools and Communities (SDFSC) program has modest positive correlations with the criteria represented by the first four columns in Tables 6.1 and 6.2 for both elementary and secondary schools (secondary *Mdn* = .10, elementary *Mdn* = .15), as does other external funding from government sources (secondary *Mdn* = .10, elementary *Mdn* = .14). For other sources of funding (contributions and fundraisers) correlations are usually positive with the criteria represented by the first four columns in Tables

6.1 and 6.2, but the correlations are also usually relatively small. The largest is the significant .14 correlation between support for the development of discipline practices from fund raisers (such as cake sales) and the range of responses for desirable conduct in secondary schools.

Principals were asked not only if special funding from the SDFSC program was among the sources of support for the development of disciplinary practices in the school, but they were also asked if the SDFSC provided support for *any* of the prevention activities in their schools. The bottom row in the budget and support panels in Tables 6.1 and 6.2 show that SDFSC support was positively associated with three of the six quality measures for secondary schools and nonsignificantly positively correlated with three of the six measures for elementary schools (correlations of .05 and less being regarded as trivial). For secondary schools these correlations are slightly higher than the correlations of special SDFSC funding for developing disciplinary practices, which may be a chance occurrence as there is no reason to expect these correlations to be higher.

Organizational support. The secondary school results for teachers' reports of the amount of recent training in classroom management or instruction in Table 6.1 provide modest support for the hypothesis that training will be related to quality of disciplinary practices, but correlations range only from -.07 to .12, and the confidence intervals for all but two of these correlations include zero. Stronger support for the training conjecture comes from the correlations between principals' reports in the Quantity and Quality of Training in School Discipline scale and the various facets of discipline quality. For secondary schools correlations range from .06 to .28 (*Mdn* = .21, five of six correlations significantly different from zero), and for elementary schools correlations range from .04 to .21 (*Mdn* = .18, four of six correlations significantly different from zero).

The average level of supervision reported by activity coordinators also tended to have positive correlations with the various indicators of quality of disciplinary practices. Correlations ranged from -.05 to .13 (*Mdn* = .11) for secondary schools and from -.10 to .25 (*Mdn* = .08) for elementary schools, lending mixed but modest support for the supervision hypothesis. Quality of discipline practices is higher in schools where principals report a greater degree of monitoring of implementation of practices for conformity with policy, especially in secondary schools where correlations ranged from .03 to .26 and the confidence interval for only one of the correlations includes zero. In elementary schools, correlations ranged from .09 to .21 with three of the six correlations significantly greater than zero.

When the principal perceives that his or her performance will be evaluated on the basis of how well discipline is managed in the school, both elementary and secondary schools tend to have better discipline practices. The median correlation is only .08 (three of six significant) for secondary schools, but the median is .15 (two of six significant) for elementary schools.

Integration with school operations. The Planning scale – completed by secondary school teachers – is significantly correlated with the Adequacy Composite and with the Range of Responses to Desirable Conduct scale. The median correlation with the six indicators of quality

is only .08, however, lending only modest support to the hypothesized link between school planning and disciplinary quality. Principals were asked to consider all the personnel time, money, and resources used in developing and applying their schools' rules and disciplinary practices, and to indicate whether special funding through the Safe and Drug Free Schools and Communities program paid for these resources. Based on responses, we estimate that 39% of schools use this resource in developing and applying discipline practices. Principals were also asked what input the school had in deciding how to use SDFSC funds. In schools where SDFSC resources are used, the degree of local initiative in their use is inconsistently correlated with the quality criteria for discipline practices, with correlations ranging from -.16 to .17 for secondary schools and from -.22 to .18 for elementary schools (*Mdn* = .00 for secondary and ! .15 for elementary schools). Local initiation in use of SDFSC funds does not show the hypothesized pattern of correlations with quality indicators. In contrast, principals' reports that discipline practices were locally developed provides strong support for the hypothesis that local initiation will predict quality of implementation. For secondary schools, correlations between the degree of local initiation and the measures of quality range from -.06 to .23 (*Mdn* = .14, the confidence interval for only the single negative correlation includes zero). For elementary schools, correlations range from -.01 to .24 (*Mdn* = .10, two of the five correlations significantly different from zero in the expected direction despite the small number of elementary schools with SDFSC support for discipline in the sample).

In both elementary and secondary schools, principals reports that teachers, other school staff, students, parents, district personnel, or researchers had responsibility for developing discipline practices were negatively correlated with measures of quality. Only administrator participation was uncorrelated with quality. It is difficult to know what to make of this unexpected set of results. Data on quality of disciplinary practices based on the reports of other school personnel would have been helpful.

Variety of information sources used in selecting discipline practices was positively related to measures of quality, particularly to the range of appropriate responses to misconduct (r = .45 in elementary schools and r = .28 in secondary schools).

Feasibility. One test of the hypothesis that activities that are suitable for the regularities of the school are more likely to be implemented is to note whether disciplinary procedures that fall outside of the regular school day and outside of the regular operation of instruction in classrooms are utilized. Chapter 3 presented information on the percentage of schools employing various disciplinary responses (Table 3.8). Note that in-school suspension, withdrawal of privileges, suspensions, are all relatively common responses to misconduct (used by 89% or more of schools), whereas after-school detention is used by 72% of schools, peer mediation by 51%, Saturday detention by 25%, and student court by 6% of schools. Despite the undesirable consequence that suspensions either in or out of school reduce exposure to instruction, these responses are better matched to the regularity of the school day than are after-school or Saturday detention. Similarly, peer mediation and student court require special arrangements – i.e., they cannot ordinarily be integrated with instruction in classrooms – and they are seldom adopted.

Level of problems. The hypothesis that we would find poorer implementation of sound disciplinary practices in schools with higher levels of problems was not supported by the data. Instead, indicators of levels of problems were sometimes positively correlated with indicators of disciplinary quality – but not consistently so. At the secondary level where student and teacher surveys were completed in cooperating schools, the student Safety scale was negatively correlated with the Range of Appropriate Responses to Misconduct scale (-.14) and with the Range of Responses to Desirable Conduct scale (-.16), but positively correlated (.16) with disciplinarian consistency. Only the first two of these correlations jibes with expectation; the third is opposite expectation. The teachers' Safety scale was negatively correlated with the Communication and Documentation scale as expected, but unexpectedly positively correlated with the Disciplinarian Consistency scale; and the same mixed pattern is observed for the Classroom Orderliness scale. Better communication and documentation of discipline practices is observed in schools with higher teacher victimization, but discipline is less consistent in schools with more teacher victimization. Student victimization has modest positive (not negative as expected) correlations with two measures of quality of discipline. Students' reports of their own delinquent behavior or drug use are not strongly correlated with measures of quality of discipline; the confidence interval for all correlations but one include zero, and the one significant correlation is in the direction opposite that expected. In short, in secondary schools where measures of problem behavior based on student and teacher reports are available, there is no consistent support for the hypothesis that high levels of problems lead to poorer quality implementation of disciplinary practices.

In both secondary and elementary schools scores on the school Selectivity scale are negatively correlated with measures of quality of disciplinary practices. All but one of twelve correlations are *opposite* the hypothesized direction, and three of these are statistically significant and of modest size (!.18, !.21, and !.22). Schools that take steps to improve the input characteristics of their students appear to be somewhat less punctilious about discipline than other schools – perhaps because they have less need to be. In contrast, secondary schools that score high on the Problem Student Magnet scale have slightly higher scores on two of the six measures of discipline quality – again opposite the hypothesized direction. Schools to which students with behavior or educational problems are assigned or to which the court or juvenile services assigns students tend to have a somewhat better range of responses to misconduct and score higher on the Adequacy Composite – perhaps because they have greater need for a range of disciplinary responses.

Schools – both secondary and elementary – in which principals report more crime to the authorities and say that gangs are a greater problem tend to have higher scores on measures of quality of disciplinary practices. Correlations are particularly high with the Range of Appropriate Responses to Misconduct scale (range of correlations is .10 to .30, *Mdn* = .28). Evidently, schools in which the principal identifies crime problems employ a broader range of disciplinary responses to student misconduct.

Community characteristics. None of the measures of community characteristics examined was strongly correlated with quality of discipline. As hypothesized, the Concentrated Poverty

and Disorganization factor is negatively correlated with the Disciplinarian Consistency scale in secondary schools, but the confidence intervals for all other correlations at both elementary and secondary levels include zero. Urbanicity has a small significant negative correlation with the Predictable Disciplinary Decision Making scale for secondary schools, but the confidence intervals for all other correlations at both elementary and secondary levels include zero. Immigration and Crowding has a small positive correlation with the range of responses to misconduct for secondary schools, but the confidence intervals for all other correlations at both elementary and secondary levels include zero.

Correlations Between School Characteristics and Average Quality of Discretionary Prevention Activities

Now we turn to the correlates of the average quality of discretionary prevention activities. Here the criterion variables are the aggregated or average quality of the various prevention programs or activities sampled in each school.[5] The same categories of hypothesized predictors examined for the quality of school-wide disciplinary practices are examined for the quality of discretionary prevention activities.

Organizational capacity. Correlations between a variety of measures of organizational capacity and indicators of average activity quality are shown in the first panel of Table 6.3. These correlations provide substantial support for the hypothesis that implementation quality will be better in schools with greater organizational capacity for program implementation. The Morale and Organizational Focus scales based on teacher reports show the same pattern of correlations with the quality criteria: statistically significant and moderately large correlations (ranging from .18 to .29, *Mdn* = .24) with frequency of operation, proportion of students exposed or participating, and ratio of providers to students in the school but small and nonsignificant correlations with other indicators. The principals' reports in the School Amenability to Program Implementation scale shows a similar but weaker pattern. These correlations are impressive because the measures of organizational capacity are independent of the measures of implementation quality (i.e., the measures are derived from different respondents). Mean scores on the activity coordinators' School Amenability to Program Implementation scale tend to be moderately correlated (ranging from .00 to .19, *Mdn* = .14) with the quality measures. In other words, the more the person responsible for implementing activities sees the school as allowing implementation the better the quality of what they implement on average.

As expected, the Teacher-Administration Obstacles to Program Development scale, based on principal reports in the phase one survey, tends to have negative correlations with measures of implementation quality, although all but the negative correlations with the two measures of student exposure have confidence intervals including zero. Principals' phase one survey reports in the School Capacity for Program Development scale had small correlations with all criteria,

[5]Sampling weights were not used in performing these aggregations so that no individual program would contribute disproportionate error variance to the means.

Table 6.3

Correlations Between Measures of School Characteristics and Practices and School Average Quality of Implementation of Discretionary Prevention Activities

Predictor category and hypothesized predictor of implementation quality [a]	Quality Indicator: Summary index of activity quality	Technical Quality: Proportion of "best practices" used: Methods	Technical Quality: Proportion of "best practices" used: Content	Technical Quality: Proportion of "best practices" used: Intensity	Extent of Use: Frequency of operation	Extent of Use: Frequency of staff participation	Extent of Use: Level of use by school personnel	Degree of Student Exposure: Proportion students exposed or participating	Degree of Student Exposure: Ratio of providers to students in school
Organizational capacity									
Morale, faculty	.01	-.10	.03	.08	.18**	-.10	.02	.24**	.27**
	316	302	270	310	293	229	314	305	309
Organizational focus, faculty	.06	-.05	.04	.10	.21**	-.03	.05	.23**	.29**
	316	302	270	310	293	229	314	305	309
School amenability to program implementation, principal (1)	.08	.02	-.09	.02	.14**	-.09	.08	.11*	.02
	508	492	442	500	469	361	507	495	499
School amenability to program implementation, activity coordinators	.19**	.09*	.00	.15**	.14**	.02	.14**	.14**	.08
	549	527	475	540	508	390	547	535	539
Teacher-administration obstacles to program development, principal (1)	-.04	-.04	.00	-.00	-.06	.05	-.03	-.10*	-.14**
	463	443	398	454	424	321	461	449	451
School capacity for program development, principal (1)	.05	-.02	-.03	.04	.05	-.06	.09*	-.03	-.05
	489	468	421	480	450	342	487	474	478
Open identification of problems, principal (1)	.13**	.07	.02	.05	.10*	-.01	.12**	.02	-.10*
	495	474	424	486	453	343	493	481	483
Teacher-principal communication, principal (1)	.07	-.01	-.01	.08	.06	-.10	.10*	.17**	.11*
	512	490	439	503	469	356	510	497	500
Teacher turnover, calculated from principal reports (1)	.01	.06	-.03	.05	-.02	.06	.02	.10	.12**
	493	471	423	483	452	349	491	477	481
Turnover in implementing personnel, activity coordinators	.01	.07	.03	.07	.01	.07	.06	.06	.00
	552	530	477	542	507	390	550	536	541
School enrollment, principal (1)	.11*	.10*	-.01	-.12**	.07	-.05	.21**	-.25**	-.32**
	521	499	445	511	477	361	519	505	509
Leadership and implementer personality style and record of accomplishments									
Administrator leadership, faculty	.01	-.07	.02	.05	.18**	-.06	-.01	.16**	.22**
	316	302	270	310	293	229	314	305	309
Principal's leadership emphasis, principal (2)									
Supervision and feedback	.10*	.10*	.04	.05	.07	-.07	.10*	.01	-.04
	506	489	440	498	467	362	505	493	497

continued . . .

Table 6.3 *(continued)*

Correlations Between Measures of School Characteristics and Practices and School Average Quality of Implementation of Discretionary Prevention Activities

Predictor category and hypothesized predictor of implementation quality [a]	Quality Indicator: Technical Quality — Summary index of activity quality	Technical Quality — Proportion of "best practices" used: Methods	Technical Quality — Proportion of "best practices" used: Content	Technical Quality — Proportion of "best practices" used: Intensity	Extent of Use — Frequency of operation	Extent of Use — Frequency of staff participation	Extent of Use — Level of use by school personnel	Degree of Student Exposure — Proportion students exposed or participating	Degree of Student Exposure — Ratio of providers to students in school
Consideration	-.01	.02	-.06	.03	.07	-.12*	.02	.02	.02
	507	490	441	499	468	362	506	494	498
Presence & visibility	.08	.07	-.03	.06	.06	.01	.07	.06	-.01
	507	490	442	499	470	363	506	494	498
Planning	.11*	.10*	.03	.05	.07	-.03	.03	.03	-.02
	507	490	441	499	468	362	506	494	498
Total leadership behavior	.09*	.10*	.00	.05	.09	-.06	.06	.03	-.02
	502	485	437	494	465	360	501	489	493
Non-delegation, calculated from principal data (ADB)	.06	-.09*	.02	.01	.02	.10	.07	.13**	.13**
	553	531	477	543	508	390	551	537	541
Broad span of control, principal (ADB)	.01	-.01	-.11*	-.14**	-.01	.06	-.04	-.06	.02
	553	531	477	543	508	390	551	537	541
Accomplishment record, principal (2)	.14**	.06	.01	.03	.06	-.04	.16**	-.05	-.11*
	508	491	441	500	470	361	507	495	499
Accomplishment record, average activity coordinators	.14**	.05	.08	-.05	.08	-.00	.24**	.05	-.04
	542	523	470	533	503	387	541	528	533
Conscientiousness, average activity coordinators	.09*	.10*	.01	.03	.03	.06	.05	.09*	-.00
	539	522	469	531	501	385	538	525	530
Conscientiousness, principal (2)	-.03	-.00	.00	-.05	-.02	-.08	-.00	-.01	.02
	506	490	441	498	467	358	505	493	497
Budget and support									
School controls budget for activities, activity coordinators	-.00	.07	-.03	-.02	-.02	-.06	-.04	.03	-.03
	550	528	475	541	508	390	548	536	540
Source of funding, discretionary activities:									
School district's budget allocation	.17**	.08	.03	.06	.02	.01	.14**	.02	-.02
	544	523	473	536	506	389	543	531	537

continued . . .

Table 6.3 *(continued)*

Correlations Between Measures of School Characteristics and Practices and School Average Quality of Implementation of Discretionary Prevention Activities

Predictor category and hypothesized predictor of implementation quality [a]	Quality Indicator: Technical Quality — Summary index of activity quality	Technical Quality — Proportion of "best practices" used: Methods	Technical Quality — Proportion of "best practices" used: Content	Technical Quality — Proportion of "best practices" used: Intensity	Extent of Use — Frequency of operation	Extent of Use — Frequency of staff participation	Extent of Use — Level of use by school personnel	Degree of Student Exposure — Proportion students exposed or participating	Degree of Student Exposure — Ratio of providers to students in school
Safe and drug free schools	-.08	-.08	.13**	-.04	-.08	-.01	-.12**	.05	-.09*
	540	519	469	532	504	389	538	526	533
External funding, government sources	.10*	.20**	.08	.00	.04	.08	.07	.02	-.10*
	536	515	466	528	501	386	535	523	529
External funding, private contributions	.02	.07	.08	.04	.06	.00	.01	.02	-.08
	541	520	468	533	503	388	540	528	534
Fundraisers	-.06	.07	.02	.02	.04	.01	-.03	.00	.08
	546	524	472	538	506	390	544	532	538
Participant fees	-.10*	.00	-.06	-.05	-.02	.00	-.08*	.02	.15**
	546	525	473	538	506	390	544	532	538
Funding is assured for next year, activity coordinators	-.04	-.10*	-.11*	-.04	.09*	-.00	.06	.02	.06
	550	528	475	541	508	390	548	536	540
Safe and Drug Free Schools funds *any* prevention activity	-.04	.07	.00	-.02	-.07	-.16**	.01	-.11*	-.12**
	510	493	444	502	471	364	509	497	501
	Organizational support								
Training in classroom management or instruction, faculty	.20**	.06	.09	.09	.12*	.21**	.15**	.16**	.25**
	327	313	280	321	301	233	325	316	320
Training in behavior management, faculty	.22**	.14*	.05	.15**	.13*	.24**	.12*	.21**	.31**
	327	313	280	321	301	233	325	316	320
Amount of training for activities, activity coordinators	.30**	.19**	.16**	.11*	.19**	.15**	.15**	.10*	.00
	548	527	474	538	506	389	546	533	539
Quality of activity training, activity coordinators	.12**	.09*	.13**	-.05	.07	.05	.09*	.02	-.07
	532	516	465	526	493	380	530	520	526
Quantity and quality of training in school discipline, principal (2)	.10*	.13**	-.07	.00	.04	-.04	.13**	.06	-.02
	420	407	366	412	391	297	419	408	412
Level of supervision, activity coordinators	.31**	.33**	.05	.13**	.21**	.16**	.22**	.06	.05
	550	529	476	540	506	390	548	535	541

continued . . .

Table 6.3 *(continued)*

Correlations Between Measures of School Characteristics and Practices and School Average Quality of Implementation of Discretionary Prevention Activities

Predictor category and hypothesized predictor of implementation quality [a]	Quality Indicator: Technical Quality — Summary index of activity quality	Technical Quality — Proportion of "best practices" used: Methods	Technical Quality — Proportion of "best practices" used: Content	Technical Quality — Proportion of "best practices" used: Intensity	Extent of Use — Frequency of operation	Extent of Use — Frequency of staff participation	Extent of Use — Level of use by school personnel	Degree of Student Exposure — Proportion students exposed or participating	Degree of Student Exposure — Ratio of providers to students in school
Principal support for program, activity coordinators	.18**	.12**	.02	.07	.16**	.15**	.13**	.12**	.14**
	552	531	477	542	507	390	550	536	541
Program structure									
Scriptedness of activities, activity coordinators	.24**	.20**	.15**	.08	.13**	.10	.18**	.05	-.04
	551	530	476	541	507	390	549	536	541
Integration with school operations									
Planning, faculty	.21**	.07	.03	.09	.19**	.13*	.16**	.21**	.16**
	316	302	270	310	293	229	314	305	309
Responsibility for starting program: school insiders, activity coordinators	.12**	.20**	.05	-.02	.11*	.10	.13**	.12**	-.02
	548	526	474	539	507	390	546	534	539
Responsibility for starting program: school district, activity coordinators	.12**	.15**	.19**	-.02	.02	.11*	.07	-.03	-.10*
	548	526	474	539	507	390	546	534	539
Responsibility for starting program: researchers, activity coordinators	.11*	.14**	.12**	.09*	.04	.08	.05	.10*	-.05
	548	526	474	539	507	390	546	534	539
Development of activity, activity coordinators									
Local	-.01	-.01	-.00	-.01	-.05	-.07	.04	.02	.07
	543	522	471	535	503	389	541	531	535
External	.13**	.14**	.04	.06	.06	.07	.10*	-.01	-.08
	542	523	472	535	501	386	541	532	535
Researcher	.07	.07	.07	.08	.06	.03	.07	.07	-.02
	532	515	465	525	497	384	531	523	526
Variety of information sources used to select activity, activity coordinators	.18**	.11*	.19**	.10*	.10*	.07	.16**	.06	-.07
	548	526	473	539	508	390	547	535	538
Degree of local initiative use of SDFS funds, principal (2)	-.13*	-.19**	-.05	.09	-.12*	-.02	-.09	.02	-.02
	353	344	310	348	334	258	353	346	349
Amount of job related to activity, activity coordinators	.14**	.10*	.07	.06	.14**	.19**	.02	.05	-.06
	547	525	473	538	507	390	545	533	538

continued . . .

Table 6.3 *(continued)*

Correlations Between Measures of School Characteristics and Practices and School Average Quality of Implementation of Discretionary Prevention Activities

Predictor category and hypothesized predictor of implementation quality [a]	Quality Indicator								
	Technical Quality				Extent of Use			Degree of Student Exposure	
	Summary index of activity quality	Proportion of "best practices" used: Methods	Content	Intensity	Frequency of operation	Frequency of staff participation	Level of use by school personnel	Proportion students exposed or participating	Ratio of providers to students in school
Activity a part of regular school program, activity coordinators	.22**	.17**	.11*	.13**	.14**	.13*	.09*	.19**	.10*
	551	530	477	542	506	390	549	536	541
Activity coordinator is full-time, activity coordinators	.11**	.04	-.00	.05	.11*	.03	.13**	.12**	-.04
	548	526	474	541	505	390	546	534	539
Activity run by volunteers, activity coordinators	-.12**	-.07	-.06	-.11*	-.08	-.17**	-.04	-.14**	.06
	547	526	473	540	506	390	545	534	538
Feasibility of activity									
Number of obstacles to implementation, activity coordinators	.08	.16**	.05	-.06	.00	-.05	.10*	-.03	-.07
	551	529	476	542	508	390	549	537	541
Timing of activity, activity coordinators									
Before school begins	.07	.02	.04	-.06	.08	.14**	.03	-.07	-.03
	543	522	471	537	501	389	541	532	537
During the school day	.04	-.05	.00	.11*	-.00	.07	.04	.15**	-.01
	543	522	471	537	501	389	541	532	537
Immediately after school	-.04	.06	.04	-.10*	-.01	-.03	.04	-.13**	.01
	541	521	471	536	499	388	539	530	535
Early evening	.01	.12**	-.01	-.05	-.02	-.10	-.02	-.06	.02
	542	521	471	536	500	389	540	531	536
Late in the evening	.00	.07	-.02	-.05	-.01	-.04	-.05	-.06	.01
	542	521	471	536	500	389	540	531	536
Weekends	.02	.06	-.04	-.01	.02	-.03	.08*	-.09*	.07
	542	521	471	536	500	389	540	531	536
Level of problems in school									
School safety, students	-.22**	-.23**	-.06	-.06	-.10	-.29**	-.06	-.01	.16*
	252	245	222	250	238	184	250	244	248
Safety, faculty	-.16**	-.21**	.04	-.08	.01	-.11	-.11	.15**	.24**
	316	302	270	310	293	229	314	305	309

continued . . .

Table 6.3 *(continued)*

Correlations Between Measures of School Characteristics and Practices and School Average Quality of Implementation of Discretionary Prevention Activities

Predictor category and hypothesized predictor of implementation quality [a]	Quality Indicator								
	Technical Quality				Extent of Use			Degree of Student Exposure	
	Summary index of activity quality	Proportion of "best practices" used: Methods	Content	Intensity	Frequency of operation	Frequency of staff participation	Level of use by school personnel	Proportion students exposed or participating	Ratio of providers to students in school
Classroom orderliness, faculty	-.09	-.20**	-.08	.04	.00	-.13*	-.00	.12*	.12*
	316	302	270	310	293	229	314	305	309
Victimization, faculty	.19**	.24**	.04	.05	.04	.19**	.10	-.02	-.14*
	316	302	270	310	293	229	314	305	309
Victimization, students	.07	-.01	.01	.01	.06	.08	.02	.02	-.09
	252	245	222	250	238	184	250	244	248
School selectivity, principal (1)	-.06	-.06	-.09	.10*	-.04	.01	-.10*	.09	.25**
	516	494	441	506	472	359	514	500	504
Magnet school for problem students, principal (1)	.04	.09*	-.01	.05	-.06	.02	.03	-.01	-.05
	517	495	441	507	473	359	515	501	505
School crime level, principal (2)	.10*	.05	.02	-.02	.06	.03	.08	-.13**	-.15**
	472	456	409	464	434	332	471	461	463
Gang problems, principal (2)	.14**	.12**	-.01	.01	.09*	.08	.09	.00	.02
	509	492	442	501	470	363	508	496	500
Last-year variety drug use, students	.09	.03	.03	.08	.09	.01	.06	.16*	.14*
	252	245	222	250	238	184	250	244	248
Delinquent behavior, students	.19**	.11	.01	.10	.13*	.08	.07	.15*	.08
	252	245	222	250	238	184	250	244	248
Community characteristics									
Concentrated poverty and disorganization	.12**	.13**	.07	-.05	.14**	.20**	.05	.00	.01
	530	509	459	520	485	373	528	517	520
Urbanicity	.15**	.08	.03	.00	.08	-.02	.13**	-.04	-.07
	530	509	459	520	485	373	528	517	520
Immigration and crowding	.02	.10*	.06	.01	-.08	-.01	-.03	.02	-.03
	530	509	459	520	485	373	528	517	520

[a] Faculty = teacher questionnaire, principal (1) = principal questionnaire for program identification, principal (2) = principal questionnaire (phase 2), students = student questionnaire, activity coordinators = activity questionnaire, ADB = activity detail booklet, SDFS = Safe and Drug Free Schools.

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

and are significantly positively correlated with only the level of use measure. The principals' phase one Open Identification of Problems scale has small significant correlations in the expected direction with the Adequacy Composite, frequency of operation, and level of use; but it is negatively correlated with ratio of providers to students. The Teacher-Principal Communication scale is significantly but modestly correlated with level of use, student exposure, and ratio of providers to students in the expected direction.

In contrast, neither teacher turnover in the school nor average turnover among activities has the expected negative correlations with measures of implementation quality. The only correlation for which the confidence interval does not include zero is positive (.12), providing no support for the turnover hypothesis. Large schools have higher average scores on the summary index of activity quality (r = .11), average proportion of best practices with respect to methods used (r = .10) and level of use by school personnel (r = .21); but they have lower average scores on the Intensity scale (r = !.12), the proportion of students exposed or participating (r = !.25), and the ratio of providers to students in the school (r = !.32).

Leadership and implementer personality style and record of accomplishments. The second panel in Table 6.3 displays correlations between the leadership style, past accomplishments and conscientiousness of the principal as well as the average accomplishment record and conscientiousness of activity providers and the average quality program implementation. These correlations provide modest support for the hypotheses that principal leadership and the record of past accomplishments of principals and program providers predict quality of implementation. Correlations are generally in the direction predicted, but many are small in size. In schools where teachers give the principal high ratings for leadership according to the Administrator Leadership scale, prevention activities operate more frequently and student exposure is greater. Correlations between the principals' ratings of their own leadership emphases and measures of quality are smaller, ranging from !.12 to .11, and only 6 of 36 correlations are significantly different from zero. A principal's emphasis on supervision and feedback on performance has correlations of .10 in size with the summary index of activity quality, the proportion of best practices with respect to methods used, and the level of use of activities by school personnel. Scores on the Consideration scale are correlated !.12 with frequency of staff participation in prevention activities (suggesting a tendency for principals who are considerate of teachers not to push them to do things). Principals' emphasis on planning has small positive correlations (.11 and .10) with the summary index of quality and the proportion of best practices used with respect to methods.

The non-delegation measure has a small negative correlation with the proportion of best practices used with respect to methods, but it is slightly (r = .13) positively correlated with each of the two measures of degree of student exposure to prevention activities. The measure of breadth of span of control is negatively correlated with intensity (r = !.14) and the proportion of best practices (content) used (r = !.11).

The extensiveness of past accomplishments of the principal and of the average program provider are both correlated .14 with the summary index of activity quality and are correlated .16

and .24 with level of use by school personnel. In schools where principals score higher on the Accomplishment Record scale the ratio of providers to students in the school is lower (r = !.11), probably because principals with higher scores direct larger schools. Past accomplishments of principal or providers are essentially unrelated to technical quality of the average prevention activity.

The conscientiousness of the average activity coordinator tends to have small positive correlations with measures of quality, reaching statistical significance for three of the nine indicators. Scores of principals on the conscientiousness scale are unrelated to the quality measures.

Budget and support. Results shown in the third panel of Table 6.3 provide no support for the hypothesis that school control of the budget for activities will predict program quality. All the correlations are small in size and their confidence intervals all include zero. Coordinators' reports that activities are funded through the SDFSC program has a modest (.13) correlation with the use of best practices with respect to content, but negative correlations (!.12 and !.09) with level of use by school personnel and ratio of providers to students. In contrast to the hypothesis, the average expected stability of funding is significantly negatively correlated with the use of best practices (both content and methods), although it is positively correlated with the average frequency of operation of activities.

Organizational support. The results in the fourth panel of Table 6.3 provide strong support for the hypotheses about organizational support. The first five rows of this panel show correlations between various measures of the amount and quality of staff development or training activity in the school. Of the 45 correlations between training measures and average activity quality, 29 are statistically significant and in the hypothesized direction. The magnitudes range up to .30 for the correlation between the average amount of training for activities reported by activity coordinators and the summary index of activity quality and .31 for the correlation between average faculty reports of training in behavior management and the ratio of providers to students in the school. Average faculty reports of training in classroom management or instruction and in behavior management have correlations ranging from .05 to .31 (*Mdn* = .15) with measures of average activity quality. Faculty training for behavior management is positively correlated with measures of technical quality, intensity, extent of use and degree of student exposure. Similarly, average activity coordinator reports of amount of training and quality of training for activities have correlations ranging from !.07 to .30 with measures of average activity quality (*Mdn* = .10). The amount of training reported by activity coordinators is positively correlated with technical quality, intensity, extent of use, and proportion of students exposed. The principals' reports of quantity and quality of training in school discipline has modest significant correlations with the summary index of activity quality, proportion of best practices (methods) used, and the level of use by school personnel of the average problem-behavior-prevention activity.

The average level of supervision reported by activity coordinators is correlated .31 with the summary index of activity quality, and it has correlations ranging from .05 to .33 with indicators

of technical quality and extent of use, although the correlations of level of supervision with measures of the degree of student exposure are not significantly different from zero. The average level of support for programs reported by activity coordinators is also significantly correlated with seven of the nine quality measures – correlations range from .02 to .18 (*Mdn* = .13).

Program structure. The hypothesis that the degree of program structure will predict the quality of prevention activity implementation is strongly supported by the results in the fifth panel in Table 6.3. The Scriptedness of Activities scale has correlations ranging from ! .04 to .24 with measures of quality of implementation (*Mdn* = .13). Average scores on the Scriptedness scale correlates .24 with the summary index of activity quality.

Integration with school operations. The results pertaining to the hypothesis that integration with school operations will predict the quality of implementation are shown in the sixth panel of Table 6.3. They provide strong support for the hypothesis, although the complex pattern of results also suggests that local development may not be beneficial. Average program quality is high when school insiders or school district personnel were responsible for *starting* programs, and it also tended to be high when researchers were responsible for starting the program. In contrast, local *development* of the program is not associated with high program quality, and instead externally developed programs tend to be of higher quality with respect to methods and level of use by school personnel. The greater the portion of activity coordinators' jobs, on average, devoted to the activity the stronger the program tended to be. And the more different sources the average activity coordinator reported using to select the activities, the stronger the program.

The more a school's prevention activities are run by volunteers, the lower the quality of the program. Correlations range from -.17 to .06, *Mdn* = ! .08, four of nine correlations are significantly negative, and the single positive correlation's confidence interval includes zero. In contrast, in schools where the principal reports that the school rather than a SDFS coordinator determined how to spend SDFS resources, average program quality tends to be low. Correlations range from ! .19 to .09, *M* = -.05, three of nine correlations are significantly negative, and the confidence intervals for the two positive correlations include zero. Apparently when schools exercise their own discretion they tend to choose activities employing fewer best practices with respect to methods and that operate less frequently than activities selected by SDFS coordinators.

The average report by activity coordinators that the activity is a part of the regular school program produced an especially striking pattern of support for the integration hypothesis. Each of the correlations with the nine quality criteria is statistically significant, ranging from .09 to .22, *Mdn* = .13. Also striking, is the pattern of correlations implying that the extensiveness of planning in a school is associated with stronger programs – the mean faculty Planning score has correlations ranging from .03 to .21 with the criterion measures, *Mdn* = .16. School planning is linked more to the extent of use of the activities and the degree of student exposure to them, however. Correlations with each of the five measures of extent of use and degree of exposure are significantly positive and range in size from .13 to .21. But the planning measure has no statistically significant correlation with any of the three measures of technical quality.

Feasibility. An activity is expected to be difficult to implement if it involves materials, resources, or times of day that are "nonstandard." That is, an activity that requires special transportation or special equipment might be difficult to carry out. Similarly, a program that operates late in the evening or on weekends (when school is not in session) may be more difficult to carry out. The first aspect of feasibility is incorporated in the Number of Obstacles to Implementation scale, and the second is addressed by reports about the time of day when activities occur.

The correlations presented in the seventh panel in Table 6.3 provide some support for the hypothesis that feasibility will predict quality of implementation. The average proportion of students exposed or participating in activities is correlated .15 with occurrence of the average activity during the school day but !.13 with after school and !.09 with weekend occurrence. Similarly, the average activity's intensity is correlated .11 with operation during the day, but -.10 with operation after school.

Unexpectedly, both the average use of best practices (methods) and average level of use by school personnel were correlated .16 and .10, respectively, with average scores on the Obstacles scale. Other unexpected correlations include the .12 correlation between average best practices (methods) and early evening time of occurrence, the .14 correlation between before school time of occurrence and frequency of staff participation, and the .08 correlation between level of use by school personnel and weekend timing. Accordingly, the correlations taken as a whole suggest that schools with prevention activities taking place outside of regular school hours may tend to have somewhat higher technical quality with respect to methods, despite the lower average exposure of students to the activities.

Level of problems in the school. The pattern of results testing the hypothesis that implementation will be of poorer quality in schools experiencing more disorder is difficult to interpret. The correlations organized in the eighth panel of Table 6.3 sometimes imply strong support for the hypothesis and sometimes imply disconfirmation. School safety as perceived both by students and by faculty is negatively correlated with the summary index of activity quality (*r*s = !.22 and !.16, respectively) and with technical quality with respect to the use of best methods (*r*s = !.23 and !.21, respectively). The student Safety scale also correlates !.29 with the frequency of staff participation in the average prevention program. Ironically, the degree of student exposure to the average prevention activity is greater in schools with greater safety.[6] A similar pattern of correlations with measures of quality is observed for average reports in the Classroom Orderliness scale.

In contrast, faculty's average score on the Victimization scale is positively correlated with the average summary index of activity quality (*r* = .19), average proportion of best practices with

[6]This outcome may occur in part because the ratio of providers to students in a school is inversely linked to the number of students in the school. The correlation is !.32. The teacher Safety scale is correlated !.24 with the number of students in the school.

respect to methods (r = .24), and frequency of staff participation (r = .19), and it is negatively correlated (r = !.14) with the average ratio of providers to students. The average student Victimization score has only small and nonsignificant correlations with the measures of program quality.

School selectivity, which was expected to have positive correlations with measures of quality has a small positive correlation with the intensity, a small negative correlation with level of use, and a sizable (r = .25) correlation with average ratio of providers to students.[7] The extent to which a school has students with educational or behavioral problems referred to it did not prove to be very predictive of level of program quality, with all correlations small in size and only the positive correlation with the average use of best practices (methods) significantly different from zero.[8]

The School Crime and Gang Problems scales based on principals' reports have modest (rs = .10 and .14, respectively) correlations with the summary index of prevention activity quality, and the Gang Problems scale has modest (rs = .12 and .09) correlations with best practices (methds) and frequency of average program operation. But the School Crime scale has moderate (rs = !.13 and !.15) correlations with the two measures of degree of student exposure. One interpretation if these results is that if a principal admits to having crime or gang problems, the likelihood that there will be quality prevention activity is slightly higher than if the principal does not admit these problems. The negative correlations between the School Crime scale and student exposure to prevention activities is as expected.

The two measures of problem behavior based on student self-reports imply that prevention activities are more frequently operated and more students are exposed to them in schools with higher levels of problem behavior. None of the correlations of either student measure with any measure of technical quality was significantly different from zero. The positive (r = .19) correlation between average Delinquent Behavior scores and the summary index of activity quality reflects the tendency of quality to be higher on each dimension in schools with more

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[7]The Selectivity scale was constructed to provide a measure of the extent to which the school employs practices that are intended to improve the quality of its studentry. The use of such practices would be expected to produce a school with students whose behavior is easier to manage – and a safer and more orderly school. This expectation is born out by the data; the Selectivity scale has substantial correlations with average Classroom Orderliness (r = .37), average student Safety scores (r = .33), average teacher Safety scores (r = .30), average teacher Victimization scores (r = !.33), and average student Victimization scores (r = !.28). None of the 99.9% confidence intervals for these correlations include zero. There is also a tendency for selective schools to be smaller schools; the correlation of the Selectivity scale with enrollment is !.22, $p < .001$.

[8]The Magnet for Problem Student scale did, however, have significant correlations with average teacher Victimization scores (r = .15, $p < .01$), average student Safety score (r = !.13, $p < .05$), and average teacher Safety score (r = !.12, $p < .05$).

delinquent behavior even though the positive correlations observed usually have confidence intervals that include zero.

Community characteristics. The hypothesis that programs would be implemented with poorer quality in disorganized communities is disconfirmed by the data. The Concentrated Poverty and Disorganization factor is positively correlated with seven of the nine quality measures (range = ! .05 to .20, *Mdn* = .07), four of these positive correlations significantly different from zero. Prevention activities are operated more frequently, staff participate more frequently, and a greater proportion of best practices (methods) is used in the average program in schools located in areas of concentrated poverty and disorganization. At the same time, the extent of student exposure is unrelated to this factor. The Urbanicity factor also has a moderate (r = .15) correlation with the summary index of activity quality, although it is significantly correlated only with level of use by school personnel among the more specific quality measures. The Immigration and Crowding factor has a modest (r = .10) correlation only with the best practices (methods) measure.[9]

Summary

This chapter tested hypotheses about the predictors of strength of program or activity implementation at the school level by reporting the aggregate-level correlations between characteristics of schools and schools' prevention activities and the average quality of implementation in those schools. First correlates of the quality of school-wide discipline practices were examined separately for secondary and elementary schools, then correlates of the average quality of discretionary prevention activities were examined. The long, complex tables are difficult to summarize. Table 6.4 uses the quantitative results presented in Tables 6.1 through

[9]Consistent with earlier research (G. Gottfredson & Gottfredson, 1985), community characteristics are predictive of levels of problem behavior. The Concentrated Poverty and Disorganization factor correlated ! .42 with average student Safety scores (p < .001) and .36 with teacher Victimization scores (p < .001). The Urbanicity factor is correlated .27 (p < .001) with principal reports of gang problems. And the Immigration and Crowding factor is also correlated .26 (p < .001) with principal reports of gang problems. Details of the correlations between community characteristics and measures of school safety and problem behavior are reported in Appendix Tables H6.1, H6.2, and H6.3.

Table 6.4
Summary of School-Level Correlates of Quality of Implementation

School or average activity characteristic	School-wide discipline		Discretionary prevention activities		
	Elementary schools	Secondary schools	Technical quality	Extent of use	Student exposure
Organizational capacity					
Morale		+	0	+	++
Organizational focus		+	0	+	++
Amenability to program implementation					
Principal's report	+	++	0	+	+
Activity coordinators' reports	0	+	++	++	+
Few obstacles to program development	0	+	0	0	++
School capacity for program development	+	+	0	+	0
Open problem identification	++	++	0	++	!
Teacher-principal communication	+	++	0	+	++
Staff stability, discretionary activities			0	0	0
Staff stability, teachers	0	!	0	0	!
Small school size	!	0	0	!	++
Principal leadership, personality style, and record of accomplishment					
Administrator leadership, teachers' reports		+	0	+	++
Principal supervision and feedback	+	++	+	+	0
Principal consideration	0	++	0	!	0
Principal presence and visibility	+	++	0	0	0
Principal planning	++	++	+	0	0
Total leadership behavior, principal	+	++	+	0	0
Principal uses delegation	0	+	+	0	! !
Narrow span of control	0	0	++	0	0
Accomplishment record, principal	0	++	0	+	!
Accomplishment record, activity coordinators			0	+	0
Conscientiousness, principal	+	+	0	0	0
Conscientiousness, activity coordinators			+	0	+
Budget and support					
School district support	0	++	0	+	0
SDFS support for specific activities	+	+	+	!	!
Other external government support	+	+	+	0	!

continued . . .

Table 6.4 *(continued)*
Summary of School-Level Correlates of Quality of Implementation

School or average activity characteristic	School-wide discipline		Discretionary prevention activities		
	Elementary schools	Secondary schools	Technical quality	Extent of use	Student exposure
Private or charitable support	0	+	0	0	0
Fund raisers	0	+	0	0	0
Participant fees			0	!	+
SDFS support for *any* prevention activity in the school according to principal	0	++	0	!	! !
School control of budget for activities			0	0	0
Funding for activities assured for next year			! !	+	0
Organizational support					
Training in classroom management or instruction, teachers		+	0	++	++
Training in behavior management, teachers		0	++	++	++
Quantity and quality of training in school discipline	++	++	+	+	0
Quantity of activity training			++	++	+
Quality of activity training			++	+	0
Level of supervision of activity coordinators	+	++	++	++	0
Monitoring of implementation of discipline policies	++	++			
Principal's performance appraisal depends on discipline management	++	++			
Principal's support for discretionary activities			+	++	++
Program structure					
Scriptedness of activities			++	++	0
Integration with school operations					
Planning, teacher reports		+	0	++	++
Responsibility for starting activities:					
School insiders			+	++	+
School district			++	+	!
Researchers			++	0	+
Development of discretionary activities:					
Local			0	0	0
External			+	+	0

continued . . .

Table 6.4 *(continued)*
Summary of School-Level Correlates of Quality of Implementation

School or average activity characteristic	School-wide discipline		Discretionary prevention activities		
	Elementary schools	Secondary schools	Technical quality	Extent of use	Student exposure
Researcher			0	0	0
Local development of discipline practices	+	++			
Development of discipline practices:					
Administrators	0	0			
Teachers	0	! !			
Other school staff	!	! !			
Students	!	! !			
Parents	! !	! !			
District personnel	! !	!			
Researchers or experts	! !	! !			
Variety of information sources used	+	++	++	++	0
Degree of local initiative in use of SDFS funds	0	0	!	!	0
Amount of job related to activities			+	++	0
Activities part of regular school program			++	++	++
Activity coordinators full-time workers			0	++	+
Activities not operated by volunteers			+	+	+
Feasibility					
Few obstacles to implementation			!	!	0
Timing of activity					
Not before school			0	!	0
During the school day			+	0	+
Not immediately after school			+	0	+
Not early evening			!	0	0
Not late in the evening			0	0	0
Not weekends			0	!	+
Level of problems in the school					
Safety, student reports		!	!	!	+
Safety, teacher reports		0	!	0	++
Classroom orderliness		0	!	!	++
Little victimization, teachers		0	!	!	+
Little victimization, students		!	0	0	0

continued . . .

Table 6.4 *(continued)*
Summary of School-Level Correlates of Quality of Implementation

School or average activity characteristic	School-wide discipline		Discretionary prevention activities		
	Elementary schools	Secondary schools	Technical quality	Extent of use	Student exposure
School selectivity	!	!	+	!	+
Not a magnet for problem students	0	!	!	0	0
Little school crime, principal report	!	!	0	0	++
Few gang problems	! !	!	!	!	0
Little drug use, students		0	0	0	! !
Little delinquent behavior, students		!	0	!	!
Community characteristics					
Absence of concentrated poverty and disorganization	0	+	!	! !	0
Not urban	0	+	0	!	0
Little immigration and crowding	0	!	!	0	0

Note. Blank cells indicate no information or no hypothesized relationship. School and activity characteristics are worded to indicate the direction of the hypothesis. + = support for the hypothesis for at least one quality indicator. ++ = support for the hypothesis for at least two quality indicators. 0 = evidence does not support the hypothesis. ! = evidence against the hypothesis for at least one quality indicator. ! ! = evidence against the hypothesis for at least two quality indicators.

6.3 to provide a crude tally of instances of support for a hypothetical predictor of quality of program implementation versus instances of no support or of disconfirmation.[10] The predictor variables in Table 6.4 are worded to indicate the expected relation with quality (e.g., *staff stability* rather than turnover is expected to go with quality).

[10]The rules for constructing Table 6.4 are arbitrary but reasonable. For predictors of quality of school-wide discipline, a "+" appears in the table if a correlation with any criterion measure was statistically significant in the expected direction or if more significant correlations were in the expected direction than in the opposite direction. A double plus ("++) appears in the table if three or more of the six correlations were in the expected direction. The same rules are used to enter a "!" or "! !" in the table. For predictors of average discretionary program implementation, measures of (a) technical quality, (b) extent of use, and (c) degree of student exposure were examined separately. A "+" appears if a correlation with any criterion measure in the set was statistically significant in the expected direction or if more significant correlations were in the expected direction than in the opposite direction. A "++" appears if at least two correlations were in the hypothesized direction. The same rules were used to enter a "!" or "! !" in the table.

The following paragraphs briefly summarize the main findings about school-level correlates of implementation quality that are illustrated in Table 6.4.

Organizational capacity. The results provide strong support for the hypothesis that organizational capacity is linked to the quality of implementation of school activities. Both the more established Morale scale and the new Organizational Focus scale (based on secondary school teacher reports) were related to quality of school-wide discipline practices and to the extent of use and degree of student exposure to activities. Both measures were relatively unrelated to technical quality of discretionary activities, however. Other measures of organizational capacity were also predictive of school-wide or discretionary prevention activity quality, with the exceptions that staff stability did not show the expected relations with measures of quality, and small school size sometimes had correlations with quality in the direction opposite expectation.

Leadership and principal and implementer personality style and record of accomplishment. The results provide support for the hypotheses, with a few exceptions. Principals' reports of their own leadership behaviors were correlated with quality of school-wide discipline with one exception (convincing evidence that the Consideration scale was related to quality of discipline in elementary schools was not found). Because principal leadership behavior and quality of disciplinary practices are both based on the reports of the same individuals, the size and regularity of the correlations are less impressive than they would be if based on independent reports. For this reason, the support for the hypothesis that principal leadership is predictive of activity quality based on the teachers' reports in the Administrator Leadership scale is important. Although the correlations are smaller than those based on principal self-report, their pattern supports the hypothesis. The ad hoc measures of delegation and span of control produced no strong pattern of results, and the results provide modest support for the hypotheses that the past accomplishments and conscientiousness of principals and activity coordinators would predict quality of implementation.

Budget and support. In secondary schools where principals report receiving any type of support for developing discipline procedures, the quality of discipline practices is better. The link between funding and quality is less clear for discretionary prevention activities, however. Reports by activity coordinators of external government support – SDFS or other – are positively correlated with technical quality but unrelated or negatively related to extent of use and student participation in or exposure to activities. Principals' reports that prevention activities in the school are supported by SDFS are also negatively correlated with extent of use and degree of student exposure to discretionary activities. The hypothesis that school control over budgets for activities would predict quality is not supported. Confidence in continued funding for activities is *negatively* correlated with the technical quality of discretionary prevention activities, although positively correlated with extent of use. In short, the hypotheses about budget support for activities find only weak and inconsistent support, and sometimes negative support.

Organizational support. The hypotheses about organizational support are in strong agreement with the data. Quality and amount of training are associated with better

implementation of school-wide discipline and better average implementation of discretionary prevention activities. Training is associated with better technical quality more extensive use of discretionary activities, and sometimes with the degree of student exposure. Furthermore, the level of supervision of activity coordinators is associated with better technical quality and extent of use of programs, and the degree to which discipline policies are monitored and to which principals' performance appraisal depends upon discipline management are associated with better quality implementation of discretionary activities and school-wide discipline. In short, training and supervision matter. Finally, there is also strong support for the hypothesis that principals' support for discretionary prevention activities is a predictor of implementation quality – particularly with respect to extent of use and degree of student exposure.

Program structure. Structure of activities predicts the technical quality and extent of use of discretionary prevention activities. We have no test of the relation between structure and quality of school-wide discipline activities, as pertinent aspects of structure (written rules, handbooks) were used as indicators of quality of school-wide discipline because prior research implied that these characteristics are related to positive outcomes.

Integration with school operations. Some of the hypothesized relations between our measures of integration with school operations were found as expected in the data, but correlations for other potential predictors were opposite the direction expected. Teacher reports of planning activity in the Effective School Battery's Planning scale were positively correlated with the quality of discipline in secondary schools and with the extensiveness of use and student exposure to discretionary prevention activities – but not related to the technical quality of discretionary activities. Insider responsibility for initiating prevention activities is associated with higher quality discretionary activities. District personnel or researcher responsibility for initiating discretionary activities is associated with technical quality. Development of discretionary activities by persons external to the school is associated to some degree with extent of use and technical quality, but neither local development or researcher development had any consistent associations with quality measures.

The pattern of results for the quality of school-wide discipline is surprising but replicated for elementary and secondary schools. Quality is higher if principals report that discipline practices are locally developed, but quality is generally lower if any of the following are reported to have had roles in development of the procedures: researchers or experts, district personnel, parents, students, other school staff, and (for secondary schools) teachers.

The variety of different information sources used in selecting activities is positively correlated with quality of elementary and secondary disciplinary practices and with the technical quality and extent of use of discretionary prevention activities, lending strong support to the hypothesis that better prevention programs are a result of more extensive use of pertinent information.

Contrary to the hypothesis, more local discretion in the use of SDFS funds was associated with poorer technical quality discretionary activities and less use of those activities.

The results provide a strong pattern of support for the hypotheses that programs will be of higher quality if performing the associated duties are a formal part of workers' jobs, if the activities are a part of the regular school program, if activities are implemented by full-time workers, and not implemented by volunteers.

Feasibility. The expectation that level of use would be lower for activities requiring special arrangements or materials was contradicted by the data; both technical quality and extent of use were higher in schools where activities tended to have special requirements or encounter obstacles. Schools making use of before-school programs tended to make more extensive use of discretionary prevention activities, contrary to expectation. As expected, however, schools with activities conducted during the school day and not after school had stronger activities both in terms of technical quality and degree of student exposure. Unexpectedly, schools with early evening activities tended to have activities of higher average technical quality, and schools with weekend activities tended to have activities with higher levels of use (but lower student exposure).

Level of problems in the school. The hypothesis that quality of implementation would be generally lower in schools experiencing high levels of problem behavior was disconfirmed with respect to most aspects of quality. Contrary to expectation, quality of disciplinary practices tends to be higher in schools with more problem behavior, as does the technical quality and extent of use of discretionary practices in most instances. The only quality criterion for which the hypothesis was confirmed is student exposure to the average discretionary activities. Student participation and exposure tends to be lower in unsafe, disorderly schools, or schools where principals report much crime. Even for this quality criterion, however, the data are sometimes at odds with the hypothesis: In secondary schools where students self-report more drug use or delinquent behavior, student exposure to discretionary prevention activities tends to be greater.

Community characteristics. Weak support was found for the hypothesis that poorer quality disciplinary practices would be found in schools located in communities with a high concentration of poverty and disorganization – or schools serving urbanized populations – whereas weak evidence against the hypothesis that community immigration and crowding would be associated with poorer discipline practices. Evidence based on the quality of discretionary prevention activities was generally against the hypotheses about community factors.

Discussion and Implications

Despite exceptions, most of the hypothesized predictors of prevention program quality received support in the school-level examination reported in this chapter. The degree of support for the hypotheses is remarkable because the tests of the hypotheses involved several obstacles. Perhaps the most important of these is the inherent difficulty in producing a school-level measure of quality of implementation that can be used to gauge such diverse practices as the administration of discipline in schools, instructional approaches to prevention, behavioral programming, other kinds of counseling, family programs, and recreational activity.

A second important obstacle is the necessary reliance on reports by a small number of individuals in each school each of whom is reporting on a *different* activity. Because different items were used to assess the *quality* criteria for activities of different types, it is difficult to estimate the reliability of these reports at the school level directly,[11] but it is inconceivable that their reliability is high. For principal reports, biases, idiosyncracies in outlook, individual differences in personality or attitudes, and temptations to present self or school in a positive light are fully confounded with reports about school practices. There is only one principal per school and accordingly only one principal report. This obstacle, which is present in all survey research that relies upon principal accounts of a school, is unfortunate. Although less severe, these same sources of error or bias can naturally occur when a small number of observers report about the school or about programs in the school. It appears useful to attempt to produce some estimate of the probable range of reliability of the school-level averages for measures of the quality of the discretionary prevention activities. Such an estimate can be made by making assumptions about the probable range of proportion of variance between schools in the quality measures and information about the number of persons contributing data per school.[12] In schools with small numbers of individuals reporting or for variables with small proportions of variance between schools, reliability may be poor. Making reasonable assumptions, we estimate that the average reliability may be around .34, which is modest at best.

The magnitude of the correlations summarized in Tables 6.1 through 6.3 should be interpreted within the context of the unreliability of both predictor and criterion measures. Estimates of the reliability of predictors for the average school were presented earlier in Table 5.1 (Chapter 5). In that table, $\hat{8}$. ranged from .24 to .88 (Q_1 = .44, *Mdn* = .57, Q_3 = .76). The largest possible correlations between predictors and criteria are the products of the reliabilities of each, implying that a correlation of .19 (.34 x .57 = .19) can be considered quite large in the context of likely unreliability of measurement.

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[11]The attempt to utilize a popular program for estimating hierarchical linear models to estimate the reliability of reports at the school level was thwarted for the quality dimensions by the unstable estimates provided when the number of individuals per school is low.

[12]For variables from the activity coordinator survey for which the intraclass correlation could be estimated it ranged from .05 to .34 (Q_1 = .11, *Mdn* = .14, Q_3 = .18). Also required for estimates is the number of persons providing data per school. This number, *n*, ranged from 1 to 17. For the quality measure with the lowest *n*s (frequency of staff participation) the range was from 1 to 5 persons, *M* = 2.0; for the quality measure with the largest *n*s (level of use) the range was from 1 to 17, *M* = 6.7 with few instances of *n* > 13). With these estimates it is possible to estimate a school-level reliability, 8, using the following formulae $D = J/(J + F^2)$, and $8 = J/(J + F^2/n)$, where J is the variance of school means, F^2 is the variance of individual reports, and *n* is the number of individuals reporting in a school. The values of 8 may range from .05 (D = .05, *n* = 1) to .90 (D = .34, *n* = 17). A more reasonable range to consider is 8 = .14 (D = .14, *n* = 1) to .68 (D = .14, *n* = 13). With D = .14 and *n* = 2, 8 = .25; with D = .14 and *n* = 7, 8 = .53. The reliability of means for schools with different numbers of respondents may have a broad range, probably averaging somewhere around .34 but with reliability quite low whenever either *n* or D is small.

Taken together, the results presented in this chapter imply that a number of characteristics of schools, what they do, and of the activities they pursue are related to the technical quality of school-wide discipline or discretionary prevention activities, the extensiveness of application of prevention activities, and the extensiveness of student exposure to preventive interventions. Table 6.5 was prepared to highlight the predictors of technical quality, Table 6.6 highlights the predictors of extensiveness of application, and Table 6.7 highlights the predictors of extensiveness of student participation or exposure

Table 6.5
Predictors of the Technical Quality of Schools' Prevention Activities

A large amount of training occurs in the specific activities and in behavior management in the school more generally.
The quality of training is high.
The work of implementers is supervised, the work of the principal is supervised, and the principal emphasizes supervision of staff.
The principal supports prevention activities.
Activities are structured (e.g., have a manual).
Implementers perceive that the school is amenable to program implementation.
School insiders are responsible for starting the activity in the school – and so are researchers or district personnel.
The activity is part of the regular school program.
A wide variety of information sources is used to select activities to put in place.

The predictors of technical quality are somewhat different from the predictors of extensiveness of application or student exposure. In general, training and the use of information would be expected to be important for technical quality and the data agree with this expectation. In general, faculty morale or enthusiasm, small school size, and a safe environment might be expected to be important for student involvement or exposure, and the data agree with this expectation as well.

Despite differences in the predictors of specific quality indicators, the broad importance of a small number of predictors of the quality of prevention activities in schools seems apparent. These include the amount and quality of training, supervision, principal support for prevention activities, structure, the use of multiple sources of information (including district or other experts) in selecting activities to implement, integration of prevention as part of the regular school program, and local responsibility for initiating the activity. Table 6.8 summarizes these

broad correlates of prevention activity quality. There is every reason to expect that improving training, supervision, structure, and the availability of information can broadly and substantially improve the quality of school-based prevention of problem behavior. The present results also suggest that prevention interventions are most likely to be well implemented – and therefore have greater prospect of effectiveness – if they are integrated with the regular school program and initiated by school insiders.

Table 6.6
Predictors of the Extensiveness of Application of Prevention Activities

There is a large amount of training in the specific activities and in classroom and behavior management in the school more generally – and training is of high quality.
The work of implementers is supervised.
The amount of planning to solve problems is high in the school (whether or not the principal emphasizes planning).
Morale is high, the organization is focused on clear goals, implementers see the school as amenable to program implementation, and problems are openly identified.
The principal supports prevention activities.
Teachers perceive that the principal is an effective educational leader.
The school's principal and of those responsible for prevention activities have a record of past accomplishment.
A wide variety of information sources is used to select activities to put in place.
Implementing the activity is a formal part of people's jobs, is a regular part of the school program, and the activity does <u>not</u> depend on volunteers.
Activities are structured (e.g., have a manual).

Table 6.7
Predictors of the Extensiveness of Student Exposure to Prevention Activities

Faculty morale is high, the organization is focused on clear goals, and the principalsees few obstacles to program development.
Communication between the principal and the faculty is open.
The school is relatively small.
Teachers perceive that the principal is an effective educational leader.
Training for teachers in classroom management and behavior management is extensive.
The amount of planning to solve problems is high in the school (whether or not the principal emphasizes planning).
The activities are a part of the regular school program, they do not depend on volunteers, and are conducted during the school day (not after school or on weekends).
The principal is supportive of prevention activities.
The school is safe and orderly.

Table 6.8
Summary: The Most Important Predictors of Quality and Extensiveness or Prevention Activity

Extensiveness and quality of training
Supervision of the activity
Principal support for the activity
The degree of structure or scriptedness of the activities
Local responsibility for initiating the activity
Use of multiple sources of information, including district personnel and "experts"
Activity is a part of the regular school program