

1982

Professional sharing patterns and attitudes among elementary classroom teachers

Dorothy Anne Engstrom
Iowa State University

Follow this and additional works at: <https://lib.dr.iastate.edu/rtd>

 Part of the [Curriculum and Instruction Commons](#)

Recommended Citation

Engstrom, Dorothy Anne, "Professional sharing patterns and attitudes among elementary classroom teachers" (1982). *Retrospective Theses and Dissertations*. 7036.
<https://lib.dr.iastate.edu/rtd/7036>

This Dissertation is brought to you for free and open access by the Iowa State University Capstones, Theses and Dissertations at Iowa State University Digital Repository. It has been accepted for inclusion in Retrospective Theses and Dissertations by an authorized administrator of Iowa State University Digital Repository. For more information, please contact digirep@iastate.edu.

INFORMATION TO USERS

This was produced from a copy of a document sent to us for microfilming. While the most advanced technological means to photograph and reproduce this document have been used, the quality is heavily dependent upon the quality of the material submitted.

The following explanation of techniques is provided to help you understand markings or notations which may appear on this reproduction.

1. The sign or "target" for pages apparently lacking from the document photographed is "Missing Page(s)". If it was possible to obtain the missing page(s) or section, they are spliced into the film along with adjacent pages. This may have necessitated cutting through an image and duplicating adjacent pages to assure you of complete continuity.
2. When an image on the film is obliterated with a round black mark it is an indication that the film inspector noticed either blurred copy because of movement during exposure, or duplicate copy. Unless we meant to delete copyrighted materials that should not have been filmed, you will find a good image of the page in the adjacent frame. If copyrighted materials were deleted you will find a target note listing the pages in the adjacent frame.
3. When a map, drawing or chart, etc., is part of the material being photographed the photographer has followed a definite method in "sectioning" the material. It is customary to begin filming at the upper left hand corner of a large sheet and to continue from left to right in equal sections with small overlaps. If necessary, sectioning is continued again—beginning below the first row and continuing on until complete.
4. For any illustrations that cannot be reproduced satisfactorily by xerography, photographic prints can be purchased at additional cost and tipped into your xerographic copy. Requests can be made to our Dissertations Customer Services Department.
5. Some pages in any document may have indistinct print. In all cases we have filmed the best available copy.

University
Microfilms
International

300 N. ZEEB RD., ANN ARBOR, MI

Engstrom, Dorothy Anne

**PROFESSIONAL SHARING PATTERNS AND ATTITUDES AMONG
ELEMENTARY CLASSROOM TEACHERS**

Iowa State University

Ph.D. 1982

**University
Microfilms
International**

300 N. Zeeb Road, Ann Arbor, MI 48106

PLEASE NOTE:

In all cases this material has been filmed in the best possible way from the available copy. Problems encountered with this document have been identified here with a check mark .

1. Glossy photographs or pages _____
2. Colored illustrations, paper or print _____
3. Photographs with dark background _____
4. Illustrations are poor copy _____
5. Pages with black marks, not original copy _____
6. Print shows through as there is text on both sides of page _____
7. Indistinct, broken or small print on several pages
8. Print exceeds margin requirements _____
9. Tightly bound copy with print lost in spine _____
10. Computer printout pages with indistinct print _____
11. Page(s) _____ lacking when material received, and not available from school or author.
12. Page(s) _____ seem to be missing in numbering only as text follows.
13. Two pages numbered _____. Text follows.
14. Curling and wrinkled pages _____
15. Other _____

University
Microfilms
International

Professional sharing patterns and attitudes among
elementary classroom teachers

by

Dorothy Anne Engstrom

A Dissertation Submitted to the
Graduate Faculty in Partial Fulfillment of the
Requirements for the Degree of
DOCTOR OF PHILOSOPHY

Department: Professional Studies in Education
Major: Education (Curriculum and Instructional
Media)

~~Approved:~~

Signature was redacted for privacy.

~~In Charge of Major Work~~

Signature was redacted for privacy.

~~For the Major Department~~

Signature was redacted for privacy.

~~For the Graduate College~~

Iowa State University
Ames, Iowa

1982

TABLE OF CONTENTS

	Page
INTRODUCTION	1
Purpose of the Study	4
Hypotheses	5
Definition of Terms	6
Barriers	7
Forces in social exchange theory	8
Assumptions	8
Limitations	9
REVIEW OF THE LITERATURE	10
Personal/Interpersonal Factors	10
Summary	23
Environmental Factors	28
Summary	33
METHODOLOGY	34
Introduction and Purpose	34
The Instrument	35
Introduction and description of the instrument	35
Instrument development	38
Data Collection Procedures	44
Statistical Analysis	47
Hypothesis one	48
Hypothesis two	48
Hypothesis three	49
Hypothesis four	50
Hypothesis five	51
Hypothesis six	51
Hypothesis seven	52
Hypothesis eight	53
FINDINGS AND DISCUSSION	54
Analysis of Population	54
Analysis of Hypotheses	58

Hypothesis one	58
Hypothesis two	63
Hypothesis three	79
Hypothesis four	84
Hypothesis five	90
Hypothesis six	94
Hypothesis seven	105
Hypothesis eight	111
Other findings	114
SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS	118
Summary	118
Conclusions	123
Recommendations for Future Research	126
REFERENCES	128
ACKNOWLEDGMENTS	133
APPENDIX A	134
APPENDIX B	138

LIST OF TABLES

	Page
Table 1. Questionnaire rate of return by district	54
Table 2. Analysis of variance for selected variables by district and building return	56
Table 3. Chi-square tests for population differences in teacher assignment, among districts and buildings with different levels of return	57
Table 4. t-tests for differences in numbers of teachers with whom teaching ideas, materials, and emotional support are shared	60
Table 5. Chi-square tests of teachers sharing materials with others of the same assignment type	65
Table 6. Chi-square tests of teachers sharing ideas with others of the same assignment type	66
Table 7. Chi-square tests of teachers sharing emotional support with others of the same assignment type	67
Table 8. t-test for differences between number of teachers named for sharing by teachers with and without assignment counterparts	76
Table 9. t-tests for differences among average number of teachers named for sharing materials, ideas, and emotional support	77
Table 10. t-tests to compare percentages of teacher matches between different types of sharing interactions	81
Table 11. t-test for frequencies of requests for ideas and emotional support	86
Table 12. Individual item mean for requesting ideas and emotional support	89

	Page
Table 13. t-tests of difference between number of teachers who are offered and who offer ideas, materials, and emotional support by years of experience	92
Table 14. t-tests for degree of influence	99
Table 15. Within barriers: Internal perspective, personal feeling	102
Table 16. Interpersonal barriers: Peer and administrator relations	103
Table 17. Environmental barriers: Physical, temporal, organizational structure and policies	104
Table 18. Chi-square analysis of environmental barriers and perceived level of encouragement for sharing	107
Table 19. Non-special education teacher interactions with special education teachers	115

	Page
Figure 1. Degree and direction of influence on sharing decisions for selected variables	96

INTRODUCTION

It is apparent to many persons who have worked within school organizations, that schools vary a great deal in the amount of professional sharing among teachers (Halpin, 1966; Knoblock & Goldstein, 1971; Marc, 1973). Professional sharing is defined as an interaction for the purpose of conveying job-related information, ideas, materials, or emotional support from one teacher to another.

A lack of peer sharing and peer support is generally viewed as detrimental, not only to the teachers as professionals and as individuals, but to the overall functioning of the school organization (Alfonso, 1977; Blumberg, 1974; Braukmann, 1980; Carr, 1976; Marc, 1976; Peterson, 1973-74). A number of writers have pointed out that professional sharing is a valuable resource with potential for promoting and maintaining personal and professional growth for teachers (Alfonso, 1977; Bryant & Haack, 1977; Seyforth, 1978). It is a resource often within sight, yet for many remains out of reach. It is a resource that is unevenly distributed among schools and among teachers within an individual school.

Consideration of several current developments in education justifies an effort to learn more about the nature of professional sharing among teachers. One

consideration is declining school budgets which means less funding available for staff in-service programs. Successful programs of teachers learning from other teachers provide an effective, low-cost way to supplement money available for outside resource persons or expense-paid travel for teachers (Braukmann, 1980; Peterson, 1973-1974).

Another consideration is the increasing pace of change within education. New factual content, new methodologies, new required curriculum for students, new legislation, and new types of student problems are only a few of the changes (Grossnickle, 1980). Teachers need "on-the-job" training to cope with the changes. Failure to cope with change results in stress. Increased teacher stress and the increased number of teacher "dropouts" are indicators that teachers are not getting the training or support they need to cope with changes (Grossnickle, 1980; Youngs, 1978).

A third consideration has to do with declining school enrollment and staff reduction (Dillich, 1980; Ornstein, 1979). Most schools have a stable staff and are experiencing few new teachers coming into the system. This creates a need to focus on the professional development of teachers who are not beginners and who are not in danger of being placed on probation (Bryant & Haack, 1977). Many of these teachers

are competent and want to continue to grow. Some teachers have developed patterns of behavior that are not as productive as they could be. Attention and encouragement are incentives for teachers to explore new ways of thinking and new methods of instruction (Blumberg, 1974). Attention and encouragement can be derived through peer interaction.

A fourth consideration is the substantial amount of money and energy that has been channeled into innovative practices such as team teaching and teacher centers. The success of these innovations depends, in part, on the ability of teachers to collaborate and to share their expertise and resources (Bredo, 1977). A clearer understanding of collaborative and sharing interactions would play a role in stemming the high failure rate of many innovations (Lippitt & Fox, 1973).

The impact of changes in teacher negotiations is another consideration. Teachers are demanding and receiving a bigger share of decision-making power (Solo, 1979). This power includes responsibilities for such things as designing teacher in-service, setting school policies, and planning teacher evaluation systems (Conway, 1978; Keef, 1979). Thus, it is likely that teachers will be interacting with each other more frequently than before. This, in turn, increases the opportunity for sharing.

Finally, studies by Rice (1968), and Walz and Miller (1969), have demonstrated that student achievement and student adjustment are affected by the psychological climate present at faculty meetings or within the school as a whole. An increased level of sharing among teachers can contribute to a positive climate as well as to improved teacher skills and knowledge (Doyle & Olszewski, 1975).

The above considerations point to the importance of the professional sharing relationship between teachers. However, teachers helping teachers is a resource that is not equally available to all teachers and has not been fully developed. This situation is likely to remain the same until educators can build a clearer understanding of professional sharing practices. More needs to be learned about the nature and scope of current sharing patterns, about teachers' perceptions of needs that may exist, and about factors that influence a teacher's decision on whether or not to share.

Purpose of the Study

The purpose of the study was to identify professional sharing practices and patterns and concomitant attitudes among elementary teachers as these sharing practices, patterns, and attitudes relate to different assignments and different levels of experience. Factors of interest

were the following: number of teachers selected for sharing; assignments of teachers selected for sharing; satisfaction with the amount of sharing interactions; type of sharing; and influences on sharing decisions of individual teachers.

Hypotheses

1. Teachers share teaching materials with fewer teachers than they do teaching ideas and, in turn, share teaching ideas with fewer teachers than they do emotional support.
2. There is a relationship between teacher assignment and teachers selected for sharing. a) Teachers select others with similar assignments for sharing interactions. b) Teachers who are the only one with a given assignment in a building have sharing interactions with fewer teachers than teachers who have at least one other teacher in the building with a similar assignment.
3. The populations of individuals selected for sharing emotional support and socialization are more similar than the populations selected for sharing ideas and socialization or for sharing materials and socialization.
4. The frequency with which teachers receive requests and make requests for emotional support related to teaching is greater than the frequency with which they receive requests and make requests for teaching ideas.

5. The number of teachers to whom experienced teachers give ideas, materials, and emotional support is greater than the number of teachers who give experienced teachers ideas, materials, and emotional support.

6. A teacher's decision on whether or not to share ideas and materials is influenced more by the factor of personal closeness than by the factors rejection/failure, ownership/competition, or recognition/esteem.

7. Teachers who believe that sharing is encouraged in their building will name a smaller proportion of environmental factors as barriers to sharing than will teachers who believe sharing is not encouraged in their building.

8. There is a positive correlation between teacher perception of the amount of sharing within a building and perception of the degree of encouragement for sharing within a building.

Definition of Terms

Professional sharing is defined as an interaction between two teachers for the purpose of conveying job-related information, ideas, materials, or emotional support from one teacher to the other.

Teacher ideas are suggestions or information related to teaching activities in general, including such things as instructional methodology, curriculum, pupil evaluation, and classroom management.

Teaching materials include software such as books, kits, games, films, and laboratory supplies related to curriculum and teaching activities.

Emotional support related to teaching includes positive verbal or nonverbal action directed to one teacher by another with the intent of being personally supportive of that teacher who is experiencing frustration, discouragement, or bewilderment as a result of being involved in teaching duties, responsibilities or relationships.

Barriers

Within barriers to sharing, are those that are created as a result of factors within a person's psychological make-up. They are characteristic attitudes or ways of thinking and behaving. Examples are fear of rejection and jealousy.

Interpersonal barriers to sharing are those that result from poor peer and authority relations. Examples are lack of communication and rivalry.

Environmental barriers are those that result from factors that are present in a given setting and are largely outside the immediate control of the individuals in the setting. Examples include physical, temporal, and organizational structures, as well as organization policies.

Forces in social exchange theory

Costs are factors that operate to inhibit or deter performance of a behavior. The greater the deterrence to performing a given act, the greater the inhibition the individual has to overcome--the greater the cost (Thibaut & Kelley, 1959, p. 12).

Rewards are pleasures, satisfactions and gratifications a person enjoys. Rewards constitute a means whereby a drive is reduced or a need fulfilled (Thibaut & Kelley, 1959, p. 12).

Assumptions

It is assumed that teachers are capable of providing assistance to one another and that teachers view help from peers as a desirable source of help (Bryant & Haack, 1977; Doyle & Olszewski, 1975; Fox et al., 1969; Lippitt & Flanders, 1965; McNeil, 1976).

It is also assumed that professional sharing, as defined for purposes of this study, is a social relationship subject to principles of social psychology that are used to explain interpersonal relationships in general (Blau, 1955; Homans, 1958; Thibaut & Kelley, 1959).

It is assumed that self-reports of general behavior patterns and attitudes are close approximations of true behavior patterns and attitudes (Hook & Rosenshine, 1979).

Limitations

Participating schools were not selected at random. Teachers were from elementary buildings of similar organization in urban school districts. Therefore, it would be inappropriate to extend the interpretation of findings beyond this sample.

REVIEW OF THE LITERATURE

Studies of peer relationships among teachers are not as common as studies concerned with teacher-parent, teacher-student, or teacher-administrator relationships. Studies concerned specifically with teacher sharing relationships are even less common (Charters, 1963). The review of literature reveals that findings related to sharing among teachers come from studies in social psychology, small group dynamics, organizational theory, team teaching, and innovation/diffusion literature.

The review is divided into two sections. First, studies concerned with personal/interpersonal factors are presented. Second, studies that can be identified as those investigating some aspect of the school environment or school experience that affects the functioning of teachers within the school are presented.

Personal/Interpersonal Factors

One of the few studies directly concerned with sharing among teachers was done by Barakat and Chesler (1967). They used the results of 473 self-report questionnaires from the K-12 faculties of 21 schools in Michigan. The researchers examined a number of personal characteristics of teachers and interpersonal

characteristics of groups that innovated and shared teaching practices. They found that teachers with urban backgrounds from either the labor or upper class innovate and share more than do teachers from a rural background or from the lower middle class. Teachers with a sibling or parent in education are also more likely to innovate and share than a teacher without. The researchers also found that teacher sex, age, marital status, parental status, concern for academic excellence, total years of teaching experience, years in the building, and years at an assignment are not related to sharing. Experience at the same assignment and years in a building have a negative curvilinear relationship to innovation. Teachers who feel they are integrated into school life and have power within that school, are more likely to innovate and share than teachers who feel alienated. Teachers' perceptions of the opportunities for staff intimacy and close personal relations are positively related to sharing. Sharers are viewed by colleagues as influential. High sharers were also found to be significantly more visible and active in both formal and informal communication systems within a school.

Lippitt and his colleagues (1967) reported similar findings from a survey they did with four elementary faculties

as part of a larger study on diffusion of innovation. They found that teachers who feel they have little influence in the social structure within a school are likely to feel there is no point in sharing since no one will listen to them anyway. Likewise, teachers who are viewed by others as influential, competent, and enthusiastic about teaching are more likely to innovate and share teaching practices than those who are not viewed in that manner. Teachers who are self-confident were found to be willing to share their classroom activities and information with peers with a minimum of fear of rejection.

The study also revealed that most teachers believe they share ideas and interact with one another all of the time. However, when teachers are asked to consider the quality and depth of the sharing interaction it becomes evident that much of it is superficial and not very meaningful or helpful.

Data from this study also suggest that how teachers view the characteristics of a practice or materials will determine whether they will share it, seek information about it, or try to use it. For instance, the practice must be seen as directly related to achieving classroom goals and must seem appropriate to a teacher's own personal style of classroom management. Interest in an idea alone is not enough. The idea or practice must fit in with the

teacher's existing resources and habitual behavior. Lippitt also found that teachers who innovate and share are more likely to see themselves as belonging to dyads or triads within the social structure rather than as an isolate or as part of a large cluster.

This last finding is consistent with findings from several other studies. For example, Fox, Schmuck, Van Egmond, Ritvo, and Jung (1975) studied group norms among teachers and found that teachers will discuss individual student problems and job-related frustrations in the teachers' lounge. However, teachers will not discuss classroom processes in the lounge. Teachers feel they have little in common with teachers outside of their teaching assignment in regard to teaching methods and curriculum. Teachers attempting to discuss classroom processes are generally cut off or ignored. Eventually teachers learn to withhold their concerns or seek out subgroups or cliques for such discussions.

Knoblock and Goldstein (1971) found similar behavior in their intensive case-study of a group of teachers. The researchers analyzed taped teacher interviews and discussions among teachers in the group for 17 weeks. They found that teachers new to a faculty may make a suggestion or ask a question related to teaching practices once or twice. The response from other teachers makes new

teachers feel as though they are being evaluated, rejected, or given too much advice. This reaction, in turn, drives teachers to try to quietly seek out one or two individuals that will accept them. If teachers do not find such an adult ally, they are forced into a closer alliance with students. A close alliance with students, as opposed to an alliance with other adults, can lead to competition among teachers for the students' loyalties and to hoarding of materials and activities for "my students."

The tendency for teachers to seek out a small number of persons with whom they can freely exchange ideas and concerns is also evident in a study by Newberry (1979). As a result of her extended field study of 23 beginning teachers, she found that beginning elementary teachers seek help from experienced teachers only if they can find one who teaches the same grade level in a nearby room and who appears to be friendly.

Bredo (1977) did a study of collaborative relations among 226 teachers from 16 elementary schools who were involved in volunteer team teaching situations. He found that 78% of the teams had three members or less. He identified several constraints that limit collaborative efforts. He found that increased group size is strongly related to a reduction in the average rate of member communication and to difficulty in coordination. He also

concluded that the small size of teams and their voluntaristic nature suggest that it is as important to coordinate basic values and orientations to the task as it is to coordinate carrying out the task itself. Small group size makes it easier to assure homogeneity and interpersonal compatibility.

Thomas and Fink (1963) have drawn conclusions based on their extensive work in small group dynamics which support the findings of the researchers cited above. They state that large groups are not as cohesive as small groups. They further state that if a group gets larger than five to eight, the possibility of maintaining close, informal relationships rapidly diminishes and is accompanied by the formation of cliques.

Greenberger and Sorensen (1972) did a study to examine the effects of age, sex, department affiliation and organizational status on interpersonal choices among a junior high school faculty. They found that personal liking for others and friendship are not limited by age, sex, department or status. Results are different when teachers are asked to whom they would go if they wanted help. The researchers found that both males and females tend to choose males for consultation. Younger teachers tend to consult with teachers that are somewhat older than themselves. Most teachers choose from their own

department unless it is necessary to go outside of the department to find male advice. The smaller the department, the more likely teachers are to consult with one another. It was also found that experienced teachers with high organizational status do not consult anyone.

Several researchers (Clear, 1970; Knoblock & Goldstein, 1971; Lippitt & Fox, 1973; Lortie, 1971; Trask, 1964) have reported that it is not just the high ranking teacher who does not ask others for ideas or suggestions related to teaching. These researchers tend to agree that there is a "norm of autonomy" among teachers that severely limits opportunities for task-related colleague interaction.

The focus of a study by Trask (1964) was to discover whether a norm of professional autonomy exists or is perceived to exist among teachers. She interviewed 23 female and 24 male principals for a total of 45 minutes each. The principals also completed a questionnaire. All principals had been classroom teachers. Trask asked principals when and under what conditions they would intervene in a classroom. Principals said they would intervene only for very serious discipline problems, emergency situations, or for something "drastically wrong." Half of the principals volunteered that interfering in a teacher's classroom would only be called for by an extreme situation or as "a last resort." Trask concluded

that the norm of autonomy is a pervasive reality in teaching to the extent that teachers have become highly resistant to any direct interventions into the domain of the classroom.

A study by Clear (1970) revealed that teachers are very resistant to the advice or influence of others. This experimental study was done in 15 high schools with 15 principals, 15 department heads, and 60 teachers. It demonstrated that teachers tend to disregard the influence of both authority-of-position figures and authority-of-knowledge figures. Teachers think of themselves as professionals who can determine for themselves what is the best course of action in a given situation.

Knoblock and Goldstein (1971) and Lippitt and Fox (1973), also in separate studies, did extensive teacher interviews and recorded teacher discussions about teaching. The researchers reported data on norms that revealed a majority of teachers think that asking for help would be seen by administrators and by colleagues as a sign of weakness or of professional inadequacy. An accompanying norm is that even if a teacher has something to offer or to suggest to another teacher, the first teacher will probably not do so for fear of interfering with another's right to autonomy or desire for privacy.

Researchers in the three studies that follow attempted to increase the amount of professional sharing. They

utilized techniques such as improving communication lines among teachers, increasing teacher skills in interpersonal relationships, and providing opportunities for teacher interaction. The first study is one done by Nelson and others (1974). They hypothesized that teachers from schools trained in both organizational development and clinical supervision will express more professional sharing than teachers in schools trained in organizational development only. However, it was found that teachers in the control group and teachers trained only in clinical supervision actually expressed as much or more professional sharing as did the teachers trained in both clinical supervision and organizational development.

Brenner (1971) tried to increase professional sharing through the use of six weekly self-directed T-groups. Her purpose was to develop ties of affiliation among teachers; increase teachers' knowledge of colleagues' inventions; develop norms favoring innovation among the teachers; and to encourage teachers' use of new ideas. The T-groups discussed professional practices with the aid of a guide sheet that was provided. Brenner reported some progress in all areas except in developing norms favoring innovation. During the last two weeks, teachers in the T-groups reported that they had tried or intended to try more new ideas than the control groups reported. However, Brenner also reported

that the program failed to have long-term effects on the amount of teacher sharing. As soon as the formal group experiences terminated, teachers returned to pre-intervention communication patterns characterized by limited sharing of classroom practices. The ad hoc groups failed to modify the basic colleague network which militates against task-related interaction among teachers.

The last study in this group is one by Lippitt and Fox (1973). They sought to assist teachers from four adjoining school districts to share innovative classroom practices with other teachers. They wanted to see if teachers would actually use colleague ideas that had been carefully selected and evaluated on the basis of creativity, practicality, and appropriateness for a wide range of subjects and grade levels. Ideas were carefully explained, printed and distributed to the teachers. This project was an attempt to facilitate the communication process involved in sharing. Follow-up activities showed that practically no teacher actually tried any of the ideas that had been shared. The younger teachers tended to view the booklet as helpful. More experienced teachers tended to feel that the ideas actually weren't new and that they had already tried most of them. Many teachers indicated they could not see value in ideas offered by teachers of different levels or subjects. Lippitt and Fox concluded that

the interpersonal process was a necessary part of getting teachers to share and to try new ideas. They felt that few teachers have the motivation or skill to follow through on written descriptions.

In reviewing studies concerned with personal/interpersonal factors related to professional sharing behavior, it becomes apparent that there are costs to be borne by a teacher who seeks to share as well as rewards to be gained. In other words, each individual balances the hoped-for rewards such as friendship or new skills, against the possible costs such as inconvenience or rejection. This balance is the premise of the social exchange theory that explains how a relationship between two people operates. Many social psychologists agree that a sharing relationship between two people is subject to the principles of the general social exchange theory (Homans, 1958; Jennings, 1950; Thibaut & Kelley, 1959).

The social exchange theory suggests that costs and rewards involved in creating or maintaining a relationship must be considered by each member of the dyad. If one or both members believe that the costs are too high or that the rewards are too low when compared to alternatives, the relationship will never begin or will not continue.

No systematic effort has been made to relate the social exchange theory to a professional sharing relationship between two teachers. A clear understanding of what cost

and reward factors are perceived by teachers in such a relationship has not been established. However, based upon studies in the literature that have been reviewed, it is possible to derive at least four factors that appear to be part of teacher peer relationships in general. These factors are fear of rejection or failure; need for recognition or esteem; competitiveness/ownership; and personal closeness. Research will be needed to determine whether the factors selected are actually perceived by teachers as influencing their decision on whether or not to share.

Studies reviewed earlier such as those by Lippitt and others (1967) and Knoblock and Goldstein (1971) revealed that teachers run a constant risk of being rejected by others. This is true whether they are offering ideas to another teacher or whether they are asking for ideas. The researchers found that as a result, teachers often choose to "go it alone" because of concern over being misunderstood, criticized or even worse, ignored altogether. The hesitancy to seek help or collaboration because it is viewed as a sign of failure has also been discussed by Knoblock and Goldstein (1971) and Lortie (1971, 1975).

A study by Teevan (1976) suggests that teachers are afraid of failure for several reasons. Teevan

used a projective scoring system for stories told by teachers. He concluded that teachers are afraid of failure because teachers are security oriented; there is little proof of teacher effectiveness; teachers are objects of much criticism and little praise; there is a lack of validated competencies; there is a lack of collegial cooperation, and because teacher evaluation tends to be punitive.

The importance of the factor of recognition/esteem to teachers is well-supported by work done by Sergiovanni and Carver (1980). In this study, a questionnaire was developed to measure the psychological/social needs of teachers. Items were developed to fit the five categories of Maslow's hierarchy of needs. The categories include: security, affiliation, self-esteem, autonomy, and self-actualization. The population for the study consisted of 233 teachers in 1966, 1593 teachers in 1969, and 585 teachers in 1978. The researchers found that teachers indicate the greatest need in the area of esteem. This is true for all teachers except those over the age of 45. However, the data indicate that teachers in this age group are not getting their needs met any better than the younger teachers but that they have dropped their aspirations. It was also found that teachers have a need for affiliation and social interaction.

The remaining two factors that have been derived from the literature as being important to teacher peer relationships have both been supported by research presented earlier in this review. Competition/ownership was mentioned in the studies by Knoblock and Goldstein (1971) and Lortie (1971). The importance of the factor of personal closeness to sharing was reported by Barakat and Chesler (1967), Lippitt and Fox (1973), Knoblock and Goldstein (1971), and Sergiovanni and Carver (1980).

Summary

The review of literature to this point has revealed some data concerning personal characteristics of sharers and non-sharers, barriers to interpersonal relationships among teachers, and costs and rewards that influence teacher peer relationships in general. The literature suggests that there is an overall need for professional sharing, but does not establish differences among groups of teachers or in what is being shared. Additional research is needed to determine variations in the scope and range of sharing patterns and practices that may exist among teachers.

Research studies that relate personal/interpersonal factors to sharing led to the formulation of six hypotheses. Several of the studies suggest that some types of sharing interactions are grade or subject specific. For example, studies by Lippitt and others (1967), Greenberger and Sorensen

(1972), and Newberry (1979) all indicate that when teachers consult with other teachers about classroom matters they seek out those teaching the same grade level and subject. Lippitt and his colleagues suggested that teachers tend to disregard ideas and materials as having no value to them unless the ideas or materials are very closely related to their specific classroom objectives. Fox and others (1975) reported that teachers do not feel they have much in common with teachers outside of their assignment in regard to teaching methods and curriculum. However, discussions of job-related frustrations and sentiment cut across subject/grade distinctions.

The findings from these studies led to hypotheses one through four. Hypothesis one states that teachers share teaching materials with fewer teachers than they do teaching ideas and, in turn, share teaching ideas with fewer teachers than they do emotional support. According to this hypothesis, materials, being the most grade-specific, are shared with the fewest teachers. Emotional support, being the least grade-specific, is shared with the most teachers.

Hypothesis two is closely related. It states that there is a relationship between teacher assignment and teachers selected for sharing. More specifically, teachers will tend to seek out others with similar assignments. In addition, teachers who are the only one with a given assignment in a

building, share ideas, materials, and emotional support with fewer teachers than teachers who have at least one other teacher in the building with a similar assignment. If teachers tend to reserve their sharing interactions for teachers with similar assignments, then those without counterparts will share with fewer teachers than those who have counterparts. It is further hypothesized (hypothesis four) that teachers will also request teaching ideas less frequently than emotional support. The hesitancy of teachers to ask for ideas related to classroom practice was mentioned by Knoblock and Goldstein (1971) as well as by Lippitt and Fox (1973). Other findings from the Lippitt and Fox study that are reported in the following section of the review of literature, suggest that teachers often feel they are too busy to utilize many new ideas. Teachers indicate they already have more ideas than they have time to implement. Therefore, they do not seek ideas very often. The norm that allows for discussion of job-related frustrations, but not teaching processes, in teachers' lounges (Fox et al., 1975) together with the non-grade specific nature of emotional support led to the supposition that emotional support is requested more frequently than teaching ideas.

Hypothesis three states that the population of individuals selected for sharing emotional support is more similar to those chosen for socialization than are those chosen for

sharing ideas or materials. Teachers with whom others share ideas and materials are viewed as being related to subject and grade considerations to varying degrees. Emotional support and socialization are viewed as more related to personal liking and friendship which are not related to grade or subject considerations according to Greenberger and Sorensen (1972).

Greenberger and Sorensen also found that experienced, high ranking teachers do not tend to consult with others about classroom matters. Lippitt and Fox (1973) reported that experienced teachers tend to think that ideas from other teachers are things they already know about or have already tried. Thus, there is evidence that experienced teachers do not see as much value in the ideas of others as do less experienced teachers. On the other hand, Newberry (1979), found that beginning teachers will seek out experienced teachers under certain conditions. Greenberger and Sorensen (1972) reported a relationship between age and who is sought for consultation. These studies led to hypothesis five which states that the number of teachers to whom experienced teachers give ideas, materials, and emotional support is greater than the number of teachers who give experienced teachers ideas, materials, and emotional support.

Hypothesis six is related to the four factors identified in the review of literature as influencing peer relationships among teachers. This hypothesis states that a teacher's decision on whether or not to share ideas and materials is influenced more by the factor of personal closeness than by the factors rejection/failure, ownership/competition, or recognition/esteem. Personal closeness was selected as being most influential because of findings from the studies of Barakat and Chesler (1967), Sergiovanni and Carver (1980), and Bredo (1977). Barakat and Chesler demonstrated that there is a positive relationship between feelings of personal closeness and the amount of sharing. Bredo found that teachers minimize the difficulties and frustrations associated with collaboration by seeking out others with whom they are personally compatible, and with whom they share common values and attitudes. Finally, Sergiovanni and Carver reported teachers have a high need for both esteem/recognition and affiliation. However, they also reported that teachers learn not to expect esteem or recognition, and thus these considerations become less important to teachers in relation to other needs. Therefore, personal closeness was selected as being the most influential of the four selected factors.

Environmental Factors

Much has been written about the physical and psychological isolation of teachers (Lortie, 1971; Marc, 1973; Knoblock and Goldstein, 1971; Seyforth, 1978). This isolation is viewed as restricting teacher interaction. Writers and researchers attribute some of this isolation to the norm of autonomy that was discussed in the previous section. Other environmental factors named are the following: poor physical arrangements of space and traffic patterns within a building; scheduling classes and teacher duties so that planning periods and "free" times of teachers do not overlap; and insufficient time set aside by districts for the purpose of encouraging teachers to plan and to work together. Research to tie these environmental factors to sharing patterns and practices among teachers is very limited. The studies that have been done rely heavily on teacher or principal observations, interviews, and survey data.

For example, Lippitt and his colleagues (1967) asked four elementary faculties, within workshop settings, to discuss and list barriers to sharing within their respective buildings. Physical layouts of buildings, time separation, and lack of time to get everything done were named more often than other barriers.

Seyforth (1978) surveyed 81 teachers in seven elementary schools about teaching practices. He concluded that the long tradition of self-contained classrooms, physically separated from one another, contributes to internal conflict and frustration in teachers who contemplate collaboration efforts such as team teaching. Bredo (1977) reported similar findings in his survey study of collaborative relations among 226 elementary teachers from 16 schools. He found that even teachers working in voluntary team teaching situations collaborate and share very little. Teachers go about their tasks independently for several reasons. He found that the reason most often named by teachers is the feeling of teachers that they never have enough time to complete all of the tasks that are expected of them. Thus, they do not feel they have the time required for increased collaboration. The logistics of scheduling mutual times to plan and to teach are so great that members of the teams are given responsibilities to plan and carry out independently within a fixed schedule. Closely related to the factor of time, is that of task immediacy. This is the feeling of teachers that they must attend to tasks that are the most pressing or immediate first. Tasks such as grading papers, working with students, preparing instructional

materials and so forth, take precedence over sharing activities with other teachers.

Studies show that there are environmental factors related to sharing other than the ones just mentioned. These factors have to do with characteristics of the school organization, how the organization operates and how teachers are treated as members of that organization.

Findings reported by Lortie (1971, 1975) in his extensive study of teachers, include some that relate to the effects of "the system" upon teachers and their sharing behavior. He analyzed responses from 5,818 teachers from five school districts in Florida. The questionnaire, developed by Lortie and his associates, consisted of 85 questions, most of which were open-ended. The questions asked teachers about experiences and opinions related to their teaching careers. He found data to support the thesis that the beginning teacher socialization process itself helps to create individualistic teachers who do not see themselves interrelated to other teachers and who do not feel a need to share a body of common knowledge. Lortie contends that, unlike neophytes in many other occupations, teachers do a remarkable amount of learning outside the presence of other adults and away from possible criticism and review. Therefore, they consciously and unconsciously test alternative approaches, "hacking" out a style under

pressure to prove their capacity rather than by careful reflection. According to Lortie's data, teachers emerge with little confidence in the existence of principles of pedagogy. Instead, they have learned effective devices, "bags of tricks" peculiarly suited to their own personalities.

Lortie also reported findings that indicate that the system used by schools to reward teachers is another factor working against professional sharing among teachers. In general, he found that extrinsic rewards such as money and security are regulated by longevity and coursetaking. Schools do not reward teachers for demonstrated effectiveness, collaborating with other teachers, or for sharing ideas with others. There is little opportunity for recognition from peers or administrators for exemplary ideas or methods. Therefore, teachers put their effort where they can receive the greatest reward. Teachers report that they receive the greatest reward in teaching from successful transactions with students. Thus, teachers tend to move toward students and away from other adults. The relationship with students as a primary source of reward may reinforce hoarding of ideas and materials that are effective and popular with students.

Findings from the Bredo (1977) study mentioned earlier supports Lortie's link between rewards and sharing among teachers. Bredo reported that the cost of collaboration

is high and the rewards few. According to Bredo, rewards for task accomplishment and enhanced student performance are needed to offset the costs of collaboration such as loss of time, likelihood of disagreement, and problems in coordination.

A final factor relating school organization and sharing behavior is a rather subtle one. Doyle and Olszewski (1975) analyzed a number of studies on teacher colleague interaction networks. They considered factors that affect the functioning of teacher interactions. They concluded that the in-service programs offered to teachers should not focus on the professional growth of individuals as they currently do. This focus perpetuates the isolated, autonomous teacher syndrome. Instead, according to Doyle and Olszewski, in-service should focus on developing colleague interaction networks because colleagues can share not only ideas and knowledge about methodology and curriculum, they can also provide practical help and psychological support necessary for instructional innovation and change. The in-service model suggested is patterned after models used successfully by professionals in other fields such as medicine.

Summary

There are environmental factors that affect sharing patterns and practices in every school organization. . . Examples of such factors are physical and administrative structures, scheduling, work load, reward systems, and policies toward beginning teachers. These factors are generally controlled by the school board, the community, and the administration, rather than by individual teachers.

Lippitt and others (1967) and Bredo (1977) found that teachers name environmental factors as barriers to collaboration and sharing more than any others. The researchers established that teachers perceive environmental factors as related to the amount of sharing that takes place in their buildings. Therefore, it was hypothesized (hypothesis seven) that as the number of environmental barriers perceived by teachers went down, the more encouragement to sharing within their building they would perceive. It was further hypothesized that the more teachers believe sharing is encouraged within their buildings, the more satisfied they are with the amount of sharing among teachers in their building (hypothesis eight).

METHODOLOGY

Introduction and Purpose

The sample population for the study consisted of 293 non-special education elementary teachers from three school districts in Iowa. Data were collected by means of a questionnaire developed by the researcher.

The purpose of the study was to identify professional sharing patterns, practices, and attitudes among elementary teachers from buildings with a traditional K-6 graded organization. The study was to define patterns of sharing interactions among teachers to determine if differences in the size and composition of those patterns existed among teachers with varying teaching assignments and experience levels. A related purpose was to determine if the patterns of sharing among teachers were affected by whether the sharing involved teaching ideas, teaching material, or emotional support related to teaching.

The study was also intended to determine how selected social/psychological factors present in a situation in which a teacher was being asked for teaching ideas or materials, would influence a teacher's decision on whether to share. Specifically, it was to be determined whether teachers would be more influenced by the factors of personal closeness present in a potential sharing

interaction, or whether teachers would be influenced more by factors of recognition/esteem, competition/ownership, or fear of rejection that were present in a potential sharing interaction. A final purpose was to establish whether relationships exist between the perceived amount of encouragement for sharing within a building and either perception of the amount of sharing or perception of environmental barriers.

The Instrument

Introduction and description of the instrument

A search of the literature did not reveal the existence of an instrument to measure patterns of professional sharing among teachers or attitudes of teachers concerning professional sharing. Therefore, a questionnaire to collect data was developed by the researcher based on consultation with professional educators and research models found in the literature (Oppenheim, 1966; Sonquist and Dunkelberg, 1977; Whitney, 1972).

The TEACHER SHARING QUESTIONNAIRE (see APPENDIX A) consists of six parts. The questions in Part I ask teachers about total years of teaching experience and years in the current building. This information was not available from other sources and was necessary

to test hypotheses and to determine whether experience levels were similar for all districts. Part II consists of seven sociometric questions designed to test hypotheses one through three. Teachers are asked to identify to whom they offer and from whom they receive teaching ideas, teaching materials and emotional support related to teaching during a typical month. They are also asked to identify teachers with whom they socialize outside of the school. Teachers are given a numbered list with the names of all professional faculty from their respective buildings from which to make their choices. Teachers can make as few or as many choices as necessary to answer the questions fully. Teachers circle the numbers on the questionnaire that correspond to the numbered names on the personnel lists.

Part III consists of nine 5-point scale items which are combined into three composite scores for analysis. Teachers are asked to rate their satisfaction with the amount of giving and receiving of ideas, materials, and emotional support related to teaching by indicating whether there should be more or less of each of the three types of sharing interactions. Teachers can mark from "should be much less" to "should be much more." The composite scores generated from these scales provide measures of perceived amount of sharing to test hypothesis eight.

Part IV uses three 5-point scale items to provide a composite score to measure whether teachers believe sharing of ideas, materials, and emotional support related to teaching is encouraged in their buildings. Teachers can mark from "never" to "very often." These measures are used with those from Part III to test hypothesis eight. These measures are also used in relation to the final item in Part IV to test hypothesis seven. The final item in this part is an open-ended question which asks teachers to name two barriers to sharing among teachers.

Part V consists of 20 items with 5-point scales that are combined into four composite measures of frequency. Teachers are asked to rate the frequency with which they receive requests for various teaching ideas, the frequency with which they receive requests for various types of emotional support, the frequency with which they request various teaching ideas, and the frequency with which they request various types of emotional support. Teachers may indicate "never" to "very often." Data from Part V are used to test hypothesis four and to provide data for additional testing of hypothesis five beyond that provided in Part II.

The final section, Part VI, consists of 25 items that list circumstances that could be present in a given situation when one teacher asks another teacher for some

teaching ideas or materials. Respondents are asked to imagine themselves in the place of a teacher receiving a request for ideas or materials from another teacher. They are then asked to indicate if the particular circumstance presented in each item would make them more or less inclined to share the idea or material by circling "M" or "L." Then teachers are asked to indicate on a 5-point scale, the degree to which the circumstance would influence their decision. Teachers may mark from "almost no influence" to "highly influential." Those items are grouped into categories to measure four different factors by a process explained in the instrument development section. The four factors are rejection/failure, competition/ownership, recognition/esteem, and personal closeness. The measures of these factors are used to test hypothesis six.

Instrument development

Content selection was based on several broad considerations. First, the content of the items was to have high face validity, which is one of the essential criteria that must be met before it is possible to combine scores from a group of items into a single measure (Renner, 1954). The items must, on the face of them, pertain to the same area of attitude, belief, or psychological dimension. The items from the TEACHER SHARING QUESTIONNAIRE

were reviewed by all members of the dissertation committee at least twice. Items and directions were revised and resubmitted. Some members reviewed as many as seven drafts for the purpose of evaluating clarity of items and directions, principles of questionnaire construction, psychological constructs, face validity and homogeneity of content for groups of items to be combined for composite scores.

Another general consideration for content selection was to write parallel items that could be used to compare responses related to the sharing of ideas with the sharing of materials and with the sharing of emotional support. The consistent separation of these three areas served two purposes. First, it was decided that the meaning of the term sharing is broad and open to more than one interpretation. Therefore, specification of the exact nature of the sharing interaction was helpful to respondents and important to the interpretation of the findings (Oppenheim, 1966; Whitney, 1972). A second purpose for the separation of item content into ideas, materials, and emotional support was to provide a number of items to be combined to obtain scores to measure feelings or attitudes (Miller, 1977). A third general consideration for selection of content was that content of items specifically include both giving and receiving components of sharing interactions wherever necessary for clarity of response or for clarity of interpretation.

The selection of content for items in Part VI which lists circumstances that could be present when one teacher asks another to share ideas or materials, was made in the following manner. First, a list of reasons why teachers may or may not want to share was generated with input from the following: informal interviews with public school teachers and former public school teachers; statements of teachers reported in the research literature (Knoblock & Goldstein, 1971; Lippitt & Fox, 1973); statements written by educators in non-research articles and books (Alfonso, 1977; Blumberg, 1974; Cook, 1979; Grossnickle, 1980; Keef, 1979; Marc, 1973, 1976; Peterson, 1973-74; Youngs, 1978); and personal observations made by the researcher as a public school educator. The list was used to produce a list of 32 items (See APPENDIX B). The second step in content selection was to submit the list to a panel of experts.

The panel consisted of six educators, two male and four female. All had experience in public school teaching ranging from five years to over twenty. Four are currently teaching education classes at Iowa State University, and two are pursuing graduate studies in education. Each member of the panel was given the list of 32 items. Members were asked to decide which of the following categories each item most nearly fit: recognition/esteem;

ownership/competition; rejection/failure; and personal closeness. If they felt the item had no relationship at all to any of the categories, panelists were asked to mark "other." Only items that were placed in the same category by five out of six panelists were included in the final draft of the questionnaire. It was found that 22 of the 32 items met the criteria. Three additional items that did not meet the criteria, but were of interest to the researcher, are also included on the questionnaire. Results from these items are reported separately.

Three types of item format were used. Open-ended responses pertaining to years of experience were obtained in Part I so that teacher experience could be used as a continuous variable. An open-ended format was also used to ask teachers to name barriers to sharing. This allowed teachers to respond with no restrictions that could bias their responses into one category or another. It also allowed the respondent an opportunity to supply information and make observations that could be used to help in the interpretation of data (Sonquist and Dunkelberg, 1977).

A sociometric question format with unlimited choices was used for questions in Part II. This format was considered to be the most concise and accurate way to record choices of specific individuals so that their assignment types could be determined. Unlimited choices also made

it possible to determine total numbers of individuals with whom a given teacher had various types of sharing contacts. This information was essential to the testing of hypotheses one, two, three, and five. There is also some evidence that unlimited choices may provide a more valid measure of the factor in question than does a restricted number format (Evans, 1962). The reliability of data from questions in this format has been shown to increase as subjects reach adulthood, as subjects know each other for longer periods, as more choices are allowed, as the relevancy of the criteria of choices to activity of the group increases, and as the criteria for choice becomes more related to general behavior patterns (Mouton, Blake, & Fruchter, 1960). The sample population and item content for the present study have characteristics consistent with the above criteria that maximize the reliability of sociometric measures.

Numerical scales were used in Parts III through VI because it was felt that attitudes being measured could meet the assumption required for the use of scales. A scale assumes a "psychological continuity which the respondent can realistically act upon in self rating" (Miller, 1977, p. 87).

When single item indexes of feelings or attitudes are combined to form composite scales, reliability and validity of the index increase (Miller, 1977; Sonquist & Dunkelberg, 1977). In Parts III through VI, three to ten single item indexes were combined to produce the composite indexes used in data analysis.

The 5-point Likert-type scale, which is the most commonly used measure of intensity of feeling, has been shown to be highly reliable when used to order people with regard to a particular attitude (Miller, 1977; Sonquist & Dunkelberg, 1977). The items for the sharing questionnaire were modeled after this scale (Renners, 1954). Respondents are asked to indicate their own attitudes or beliefs by checking the response to each item that most nearly expresses their feeling. Weights (1, 2, 3, 4, and 5) are assigned to each of five response categories in such a way that the highest weight is always assigned to one end of the continuum while the lowest weight is assigned to the opposite end. Part VI contains a 5-point scale to measure intensity of feelings but also asks teachers to indicate the direction of intensity. This means that the measures can be analyzed separately with ease, yet can be converted to a single 11-point scale which allows for more variability than a 5-point scale.

Two pilot tests with a total of 35 K-6 teachers from three schools were conducted during the development of the instrument. Teachers were asked to make written comments about the clarity of items and directions. They were also asked to note the time required to complete the form. Item means and standard deviations were completed to assure that there was variability in teacher response.

The means for items 22 to 31 (frequency with which you receive requests for each item below) and the means for items 32 to 41 (frequency with which you request each item below) were rank-ordered to determine if responses to the two sets of questions were consistent. That is, the item most frequently requested should also be the item for which the most requests were received. The rank order of the items requested was, in fact, identical to the rank order of items for which requests were received. (See Table 12 for additional information.)

Data Collection Procedures

The three school districts that participated were selected on the basis of similar size and availability of elementary buildings with traditional K-6 graded organization. Districts with student enrollments over

15,000 were selected because it was found that these school districts had a much higher proportion of schools with traditional K-6 elementary school organization than did districts with smaller enrollments.

A request for approval to do research was obtained from the designated administrator in each of the three school districts during February and March, 1981. At that time district administrators and the researcher agreed that the elementary schools selected would not be scheduled for closing the following fall and that they would not be currently involved in another major research project. Personnel lists that contained the names and teaching assignments of all professional faculty members in the selected buildings were obtained.

Data collection took place during April and May of 1981. Differences in the data collection techniques among districts were considered to be minor. Specific influences that may have affected the outcome of the study are discussed in the data analysis chapter. The timing of the data collection was determined by the school districts. The questionnaires along with cover letters were delivered to each building to be distributed within approximately two weeks, at the discretion of the principal. Teachers were provided with envelopes in

which to seal the questionnaires and return them to the researcher.

Approximately two weeks after the questionnaires were distributed at each building site, individual, written reminders were sent to non-respondents. About one week later, a thank-you letter was sent to each principal along with an additional reminder to teachers that their help would still be appreciated. A procedure for obtaining a replacement questionnaire was explained. Replacement questionnaires were sent directly to teachers the same day requests were received.

The completed questionnaires were prepared for key-punching so data could be computer analyzed. Identification numbers were assigned to each questionnaire. Items left blank or responses that were not useable were coded as missing values. Responses from open-ended questions concerning years of experience were keypunched as given. Responses from item 21, which asked teachers to name barriers to sharing were coded "1" for within factors, "2" for interpersonal factors, "3" for environmental factors, and "9" for missing values. The basis for the coding categories is explained more in detail in the section on statistical analysis that follows. In addition to coding the barriers named by teachers, a separate verbatim

written record was made of the responses along with explanatory comments made by teachers. The computer was programmed to punch four additional cards for each teacher. These cards contained data on the number of teachers of every assignment type chosen by each respondent for each of four kinds of interactions (e.g., sharing of teaching ideas, sharing of teaching materials, sharing of emotional support, and socialization).

Statistical Analysis

Initially, oneway analyses of variance (ANOVA) were calculated to determine if teachers from the three districts were significantly different in total years teaching experience, years taught in current building, total number of different teachers chosen for sharing interactions, and score on the measure of encouragement for sharing within the building perceived by teachers. A Chi-square test of significance was also run to determine if teacher assignment type was different in any of the three districts. These tests were run to determine the appropriateness of combining data from all districts for analysis. Oneway ANOVAs were run to determine if teachers from buildings with a low rate of return, an average rate of return, and a high rate of return were significantly different in total

years of teaching experience, years taught in current building, total number of different teachers chosen for sharing interactions, and score on the measure of encouragement for sharing within the building perceived by teachers. A Chi-square test was run to determine if teachers from buildings with low, average and high percentages of return were significantly different in regard to teacher assignment types.

Hypothesis one

Three paired t-tests were run to determine whether there were significant differences between the means of the following pairs of variables: number of teachers with whom teaching ideas are shared and the number of teachers with whom teaching materials are shared; number of teachers with whom teaching ideas are shared and the number of teachers with whom emotional support is shared; and number of teachers with whom teaching materials are shared and the number of teachers with whom emotional support is shared.

Hypothesis two

Chi-square tests of significance were used to determine whether a higher proportion of teachers with a given assignment type have at least one sharing contact with

another teacher of the same type than do teachers with different assignment types. Three 2 x 4 tables were used, one each for ideas, materials, and emotions.

A paired t-test of significance was used to determine if a significant difference existed between teachers who were the only one in the building and teachers who had at least one other teacher with the same assignment in the total number of different teachers with whom they had sharing interaction.

Hypothesis three

A computer program was written that totaled the number of identical teachers that were selected by a respondent in each of the following pairs of sharing interactions:

- a. sharing ideas and socialization
- b. sharing materials and socialization
- c. sharing emotional support and socialization
- d. sharing ideas and sharing emotional support
- e. sharing materials and sharing emotional support

For pairs a, b, and c, the proportion of matches in each pair was compared to total number of people selected for socialization. Then paired t-tests were used to determine if there were significant differences in the proportion of matches between ideas and socialization, materials and socialization, and emotional support and socialization.

For pairs d and e, the proportion of matches in each pair was compared to the total number of people selected for emotional support. The paired t-tests were used to determine if there were significant differences in the proportion of matches between ideas and emotional support and materials and emotional support.

Hypothesis four

A composite score to measure the frequency with which teachers receive requests and make requests for teaching ideas was determined by finding an average score for items 22 through 26, and 32 through 36. These items list five different types of teaching ideas--ideas for lesson plans/methods, ideas for motivating students, ideas for pupil evaluation, ideas for working with parents, and ideas for discipline/management. The frequency with which teachers receive and make requests for emotional support was obtained by finding the composite mean of items 27 to 31 and 37 to 41. These items refer to the frequency of receiving or making requests for emotional support for dealing with policies, with peers and administration, with parents, with students and with personal matters. On all of these items teachers could mark from "never" (1) to "very often" (5).

A paired t-test was used to determine if a significant difference exists between the means of the two composite

frequency measures. Items were also ranked by means to provide descriptive data and to insure internal consistency between items requested and items being requested.

Hypothesis five

The total number of individuals named in item 1 (who offers you ideas), item 3 (who offers you materials), and item 5 (who offers you emotional support) was computed. The total number of individuals named in item 2 (to whom do you offer ideas), item 4 (to whom do you offer materials), and item 6 (to whom do you offer emotional support) was computed. t-tests were used to determine whether there was a significant difference between the number of teachers who offer ideas, materials, and support, and number of teachers to whom ideas, materials, and support are offered for three different levels of experience.

Hypothesis six

The use of a panel of experts to select and categorize items to measure four factors related to sharing decisions was described earlier in this chapter. The work of the panel resulted in four groups of items. The composite mean scores of these four groups were used as measures of the direction and the degree of influence of the following variables: personal closeness (items 48, 53, 57, and 60);

recognition/esteem (items 43, 44, 47, 52, 61, and 66); ownership/competition (items 46, 49, 55, 56, 59, 62, and 65); and rejection/failure (items 42, 50, 51, and 54). Teachers indicated the degree of influence on decisions about whether to share was indicated by marking a point on a scale from "almost no influence" (1) to "highly influential" (5). Teachers also indicated the direction of the influences by circling an "M" for more likely and an "L" for less likely. Using the influence score and the direction indicator, an 11-point scale was created with 6 being the neutral or no influence point. The means of the composite scores for each of the four variables were computed. The distance of each mean from the center of the scale (no influence) was computed to determine the degree or intensity of influence. t-tests were used to determine if the degree of influence of personal closeness was significantly higher than the degree of influence of rejection/failure, recognition/esteem, or ownership/competition.

Hypothesis seven

Teachers were given a score of 0, 1, or 2, depending on whether they named zero, one, or two environmental barriers in item 21. A composite score to measure the degree to which teachers believe sharing is encouraged in their buildings was derived from the mean of items

17, 18, and 19. Based upon this composite score teachers were divided into two groups--those whose scores were above the mean, and those whose scores were at or below the mean. A Chi-square test of significance was used to determine if the two teacher groups varied in the proportion of those naming zero, one, or two environmental barriers.

Hypothesis eight

The measure for the degree to which teachers believe sharing is encouraged within their buildings is a composite score derived from the means of items 17, 18, and 19. The composite score to measure whether teachers believe there should be more sharing, was derived from the mean score of items 10, 13, and 16. A Pearson correlation coefficient was computed to determine if there is a relationship between the two measures.

FINDINGS AND DISCUSSION

Analysis of Population

Of the 617 questionnaires distributed, 293 or 47.5% useable questionnaires were returned. Table 1 shows the percentage of return by district. Two districts had return rates of just over 40% while District B had a return rate of nearly 70%. Even though districts varied considerably in the overall return rates, the range of return by building was quite similar. All three districts had individual building returns of less than 25 per cent while other buildings had returns over 85 per cent.

Table 1. Questionnaire rate of return by district

District	n	% Return	Range of building returns	
			Lowest %	Highest %
A	138	40.2	14.3	94.4
B	106	69.3	24.0	91.3
C	49	40.5	13.5	86.4

Tests of one-way analysis of variance (ANOVA) were used to determine if the teachers who responded from the three districts were significantly different in total years teaching experience, years taught in current building, total number of total teachers chosen for sharing interactions, and score on the measure of encouragement for sharing within a building perceived by teachers. One-way analyses of variance were also used to determine if teachers from buildings with low, average, or high rates of return differed significantly on the same variables just mentioned. For these tests, teachers were divided into three groups. The high group consisted of those from buildings with return rates over 70%; the average group included those from buildings with returns from 30% to 70%; and the low group included those from buildings with return rates less than 30%. The cut-offs allowed the three groups to be nearly even in number. Table 2 presents the results from all of the ANOVA tests. No significant differences were found among teachers from buildings with different rates of return.

Further tests were run to determine if significant differences in teaching assignments existed among teachers from different districts or among teachers from buildings with low, average or high rate of return. Table 3 shows that the proportion of teachers with K-3, 4-6 and departmentalized assignments is not significantly

Table 2. Analysis of variance for selected variables by district and building return

Source	Districts			Buildings by high, medium, low return		
	df	MS	F	df	MS	F
Years of experience						
Between groups	2	79.9	.91	2	193.72	2.20
Within groups	285	87.6		276	88.18	
Years in building						
Between groups	2	24.4	.61	2	23.88	.59
Within groups	282	39.9		273	40.50	
Total teachers chosen						
Between groups	2	11.7	.58	2	29.87	1.47
Within groups	283	20.2		281	20.38	
Encouragement score						
Between groups	2	.9	.86	2	2.67	2.49
Within groups	290	1.1		281	1.07	

Table 3. Chi-square tests for population differences in teacher assignment, among districts and buildings with different levels of return^a

	n	District			Building return		
		A	B	C	low	medium	high
K-3 self-contained	151	47.0	36.4	16.6	12.6	43.0	44.4
4-6 self-contained	71	39.4	42.3	18.3	15.5	35.0	49.3
Departmentalized subjects	71	54.9	29.6	15.5	22.5	33.8	43.7
		$\chi^2 = 3.56$			$\chi^2 = 4.76$		
		df = 4			df = 4		
		p = .47			p = .31		

^aColumns are percentages. Frequencies can be obtained by multiplying column percentages by n.

different among districts or among buildings with different rates of return. Therefore, no significant differences were found among groups of teachers from different districts or from buildings with low, average, or high rates of return in variables relating to experience, perceived encouragement for sharing or assignment type. Based upon these non-significant results, it was decided that it was appropriate to combine responses from all teachers to test hypotheses.

Analysis of Hypotheses

Hypothesis one

Teachers share teaching materials with fewer teachers than they do teaching ideas and, in turn, share teaching ideas with fewer teachers than they do emotional support.

The number of other teachers with whom a teacher shared materials was determined in the following manner. A count was taken of different individuals named by a teacher in response to items 3 and 4. Each individual was counted only once. Items 3 and 4 asked teachers who offered them materials and to whom they offered materials. The total number of different individuals named in sharing interactions for ideas (items 1 and 2) and for emotional support (items 5 and 6) was similarly determined. The mean number of teachers named for sharing

materials was 3.1 while the mean number of teachers named for sharing ideas was 4.0 and the mean number for sharing emotional support was 4.5. The results of paired t-tests, shown in Table 4, indicate that significant differences exist ($p < .005$) between all pairs: the number of teachers named for sharing ideas and materials; the number named for sharing ideas and emotional support; and the number of teachers named for sharing materials and emotional support.

The results are supported by the research of Lippitt and others (1967), Greenberger and Sorensen (1972), and Newberry (1979) all of which suggest that some types of sharing interactions are highly grade or subject specific. This, in turn, limits the number of individuals available with a given building that meet the criteria of teaching the same subjects and the same grade level. Thus, the sharing of materials, being the more grade-specific, is limited to the smallest number of individuals. Unsolicited written remarks from a number of teachers indicate that at least some feel sharing of materials should be limited. Because sharing of materials is inconvenient and inefficient, enough materials should be available for all. In addition, according to these remarks, if materials are shared between grade levels, students are subjected to viewing or working with materials

Table 4. t-tests for differences in numbers of teachers with whom teaching ideas, materials, and emotional support are shared

Teachers in sharing interactions	n	\bar{X}	SD	t	df	1-tail p
Ideas	288	4.0	3.62			
Materials	288	3.1	3.11	6.53*	287	<.001
Ideas	288	4.0	3.62			
Support	288	4.5	3.87	-2.66*	287	.002
Materials	288	3.1	3.11			
Support	288	4.5	3.87	-6.40*	287	<.001

*p < .005.

they have encountered before. This is perceived as negative from the standpoint of student motivation.

The sharing of teaching ideas is seen somewhere between materials and emotional support on a continuum of grade/subject specificity. Researchers like Fox and others (1975) report that teachers don't feel they have much in common with teachers outside of their assignment in regard to teaching methods and curriculum. Even so, it seems possible that teachers who do not perceive of a book or film used by an "outsider" as remotely satisfactory for their own objectives, could still perceive an outsider's way of handling problem students or motivating students as relevant.

The findings of the present study support Fox et al. (1975) and Knoblock and Goldstein (1971) who reported that discussions of job-related frustration and sentiment cut across subject/grade distinction. The emotional aspect of teaching forms a common bond among teachers. Therefore, there is a larger pool of individuals from which teachers can choose to share emotional support. Teachers feel they can commiserate or exhalt with teachers of varying assignments and still expect a degree of common understanding of the experience that is shared--perhaps not in factual detail, but in feelings involved. This may seem contradictory to other findings of Knoblock and

Goldstein and also Lortie (1971) that indicate teachers feel inhibited in sharing emotions and that the norm of autonomy dare not allow for much sharing of any type. Two points might be made here. First, the fact that a teacher believes other teachers have similar job-related frustrations and emotions does not necessarily mean the teacher will feel free to express these feelings or to approach others. Secondly, as Lippitt and his colleagues (1967) pointed out, the quality and depth of many sharing interactions identified by teachers are superficial. Therefore, it is expected that many of the emotional support interactions reported by teachers could involve such things as supportive comments in the teacher's lounge or questions related to how an individual is getting along. These types of interactions are not grade specific and do not require a great depth of interpersonal relationships. As a result, teachers name more teachers for emotional support sharing interactions than for either material or idea sharing interactions. The data support the hypothesis that teachers share emotional support with the greatest number of teachers, share ideas with the next greatest number of teachers, and share materials with the least number of teachers.

Hypothesis two

There is a relationship between teacher assignment and teachers selected for sharing: (a) Teachers select others with similar assignments for sharing interactions, (b) Teachers who are the only one with a given assignment in a building have sharing interactions with fewer teachers than teachers who have at least one other teacher in the building with a similar assignment.

To test the first part of hypothesis two, the assignments of teacher respondents were recoded into the following four categories: self-contained grades K-3; self-contained grades 4-6; departmentalized basic subjects such as language arts and math; and departmentalized special subjects such as art and music. Chi-square tests of significance were run on assignment type by teachers who had no sharing contacts and teachers who had at least one sharing contact with teachers of the four assignment types. Separate Chi-square tables were used for sharing interactions related to teaching materials, teaching ideas, and emotional support. The cells indicating the number of contacts were collapsed into two cells--that of no contact and at least one contact--for two reasons. First, this arrangement helped to minimize problems due to faculty size and composition when some teachers would have a possibility of many contacts with each assignment type while others' choices would be limited. This situation creates difficulty in

interpretation of results and creates empty cells in Chi-square tables. Secondly, after examining tables run with zero through five or more contacts, it was determined that presentation of the data could be greatly facilitated by reducing the contact categories to two with minimal loss of meaningful data. Tables 5 through 7 show the results.

Table 5 presents Chi-square data related to the sharing of teaching materials. For each assignment type, a higher proportion of teachers have contact with at least one other teacher of the same assignment type than do teachers of different assignment types. By moving diagonally across the table, the pattern can be observed. Starting with the data in the second column under K-3, it can be seen that 89.3% of the K-3 teachers have contact to share teaching materials with at least one other K-3 teacher while only 23% to 36% of the other groups do. A total of 76.9% of the 4-6 self-contained teachers have contact to share materials with at least one other 4-6 self-contained teacher while only 18% to 50% of the other groups do; 53.6% of departmentalized basic subjects teachers have contact with at least one other teacher of that type while 8% to 29% of the other groups do; and 35.9% of special subjects teachers have contact with at

Table 5. Chi-square tests of teachers sharing materials with others of the same assignment type^a

Assignment type	n	Self-contained				Departmentalized			
		K-3		4-6		Basic subjects		Special subjects	
		% no contact	% contact	% no contact	% contact	% no contact	% contact	% no contact	% contact
K-3 self-contained	150	10.7	89.3	81.3	18.7	91.3	8.7	92.0	8.0
4-6 self-contained	71	76.1	23.9	21.1	78.9	77.5	22.5	85.9	14.1
Dept-basic subjects	28	64.3	35.7	50.0	50.0	46.4	53.6	82.1	17.9
Dept-special subjects	39	66.7	33.3	74.4	25.6	71.8	28.2	64.1	35.9
	288	$\chi^2 = 11.05$		$\chi^2 = 78.6$		$\chi^2 = 34.74$		$\chi^2 = 20.07$	
		df = 3		df = 3		df = 3		df = 3	
		p < .001		p < .001		p < .001		p < .001	

^aThe frequencies are not included to improve readability of the table. Frequencies can be obtained by multiplying the percentage in a category by n of the assignment type.

Table 6. Chi-square tests of teachers sharing ideas with others of the same assignment type^a

Assignment type	n	Self-contained				Departmentalized			
		K-3		4-6		Basic subjects		Special subjects	
		% no contact	% contact	% no contact	% contact	% no contact	% contact	% no contact	% contact
K-3 self-contained	150	6.7	93.3	75.3	24.7	88.7	11.3	88.0	12.0
4-6 self-contained	71	63.4	36.6	21.1	78.9	73.2	26.8	78.9	21.1
Dept-basic subjects	28	47.1	42.9	39.3	60.7	46.4	53.6	71.4	23.6
Dept-special subjects	39	48.7	51.3	69.2	30.8	71.8	28.2	53.8	46.2
	288	$\chi^2 = 90.57$		$\chi^2 = 64.01$		$\chi^2 = 28.43$		$\chi^2 = 23.55$	
		df = 3		df = 3		df = 3		df = 3	
		p < .001		p < .001		p < .001		p < .001	

^aThe frequencies are not included to improve readability of the table. Frequencies can be obtained by multiplying the percentage in a category by n of the assignment type.

Table 7. Chi-square tests of teachers sharing emotional support with others of the same assignment type.^a

Assignment type	n	Self-contained				Departmentalized			
		K-3		4-6		Basic subjects		Special subjects	
		% no contact	% contact	% no contact	% contact	% no contact	% contact	% no contact	% contact
K-3 self-contained	150	11.3	88.7	63.3	36.7	84.7	15.3	77.3	22.7
4-6 self-contained	71	49.3	50.7	22.5	77.5	69.0	31.0	66.2	33.8
Dept-basic subjects	28	35.7	64.3	39.3	60.7	42.9	57.1	53.6	46.4
Dept-special subjects	39	46.2	53.8	56.4	43.6	64.1	35.9	33.3	66.7
	288	$\chi^2 = 44.05$		$\chi^2 = 34.02$		$\chi^2 = 25.86$		$\chi^2 = 29.18$	
		df = 3		df = 3		df = 3		df = 3	
		p < .001		p < .001		p < .001		p < .001	

^aThe frequencies are not included to improve readability of the table. Frequencies can be obtained by multiplying the percentage in a category by n of the assignment type.

least one other special subjects teacher while only 8% to 18% of other groups do. Results of the Chi-square tests are significant at $p < .001$ level and support the hypothesis that teachers select others with similar assignments for sharing interactions.

There is a trend of lower percentages of one or more contacts as one moves from K-3 self-contained (89.3%) to departmentalized special subjects (35.9%). It is possible that while there are common elements among assignments within all groups, the K-3 teachers have the most in common with regard to materials and the special subjects group have the least in common. Special subjects teachers generally have fewer choices of other teachers with exactly the same assignment. On the other hand, the primary curriculum particularly in language arts and reading is often set up so that there is considerable overlap and repetition between grades to accommodate a wide range of skill levels and to provide for continuous progress. Teachers thus not only have familiarity with the curriculum and types of materials being used by other primary teachers, but may also teach the same parts of the curriculum and use the same materials. There is some evidence that of all of the assignment types, primary teachers are most likely to have no contact

with any other assignment group. Data from Table 5 show that 81% to 92% of the K-3 group have no sharing contact with teachers in other assignment groups. These figures are higher than for any other assignment group. Although Table 5 refers to the sharing of materials only, the same pattern holds true for data related to sharing ideas (Table 6) and sharing emotional support (Table 7). This could be in part a reflection of curricular overlap mentioned above. Perhaps it is partly a function of the greater size of this group. Teachers in this group typically have more individuals from whom to select so that the likelihood of finding someone who is compatible is greater. Also, if primary teachers wish to consult with teachers their students have previously had the consultation is still within the primary group.

Table 6 presents Chi-square data related to sharing teaching ideas among teacher assignment groups. A pronounced similarity exists between this data and that shown on Table 5. A higher percentage of teachers in each assignment type have contact for sharing ideas with teachers of the same assignment type than do teachers with other assignments. A total of 93.3% of K-3 teachers share ideas with at least one other K-3 teacher. Only 6.7% of the K-3 teachers do not

share ideas with other K-3 teachers. Other data show that 36.6% of the 4-6 self-contained teachers, 42.9% of the departmentalized basic subjects teachers, and 51.4% of the departmentalized special subjects teachers share ideas with at least one K-3 teacher. Of the 4-6 self-contained teachers, 78.9% have contact for sharing ideas with at least one other 4-6 self-contained teacher compared to 24.7% of the K-3 group, 60.7% of the basic subjects group, and 30.8% of the special subjects group. Departmentalized and basic subject teachers and special subject teachers also have more sharing contacts within their respective group. A total of 53.6% of the departmentalized basic subjects group have contact for sharing ideas with at least one other basic subjects group while 11.3% of the K-3 teachers, 26.8% of the 4-6 self-contained teachers, and 28.2% of the special subjects teachers do. The last two columns on Table 6 show that 46.2% of the special subjects teachers have contact with at least one other special subjects teacher. This compares to 12.0% of the K-3 teachers who have sharing contacts with at least one special subjects teacher, 21.1% of the 4-6 self-contained group, and 28.6% of the departmentalized basic subjects group. Chi-square values on all three 2 x 4 tables have probabilities beyond .0001. These findings

suggest that teachers do share ideas with others of the same assignment type.

As in Table 5, there is a trend for the K-3 group to have the largest percentage (93.3%) of teachers in contact with at least one other K-3 teacher and the special subjects group to have the smallest percentage (46.2%) of teachers in contact with at least one other teacher of their own assignment type. While teachers of all assignment types tend to share more frequently with others of the same assignment type, there is still variation among assignment types. This variation appears to reflect the degree of commonality among teachers within a group. Fox and others (1975) and Newberry (1979) have reported that unless a teacher perceives another teacher as having very similar grade and subject objectives, they will tend to think they have little in common, thus little to offer. For example, as mentioned previously, K-3 teachers may utilize some of the same curriculum and materials as other K-3 teachers while art, music or physical education teachers would have considerably less overlap. However, special subjects teachers would have some common concerns or strategies. Examples include working with large numbers of students and teachers, obtaining and storing equipment, scheduling, working within rigid time periods, and extracurricular activities. The K-3 teachers are more likely to have

similarities in teacher preparation programs than are teachers who have spent time preparing differing subject area specialties. As Lippitt and Fox (1973) reported, physical location and scheduling can serve to enhance or limit sharing if for no other reason than they influence the number of opportunities for contact. Gymnasiums and music rooms in particular, are frequently removed from regular classroom areas, thus decreasing the amount of daily informal contact with the same people. With the exception of kindergarten, most schools schedule primary grades together for recess and lunch breaks. This increases the likelihood that teachers have some mutual "free time."

Even though percentages in Tables 5 and 6 remain in very similar relative position to one another there is one noticeable difference. The percentages of teachers that have sharing contacts with other teachers are higher for sharing ideas than for sharing materials. This is true in all but three cells where the percentages remain the same. This finding is consistent with hypothesis one which states that teachers share materials with fewer teachers than they share ideas. Ideas are less subject/grade specific than teaching materials.

Table 7 presents Chi-square data related to sharing emotional support. The findings for emotional support follow the pattern established by findings for sharing materials (Table 5) and for sharing ideas (Table 6). A higher proportion of teachers share emotional support with others of the same assignment type than they do with teachers of other assignment types. A total of 88.7% of K-3 teachers have contact with at least one other K-3 teacher for emotional support compared to 50% to 65% of the teachers from other groups; 77.5% of 4-6 self-contained teachers have contact with at least one other 4-6 self-contained teacher compared to 37% to 61% teachers from other groups; 57.1% of departmentalized basic subjects teachers have contact with at least one other basic subjects teacher compared to 15% to 36% of teachers from other groups; and 66.7% of special subjects teachers have contact with at least one other special subjects teacher to share emotional support compared to 22% to 47% of teachers from other groups. The differences are significant at or beyond the .001 probability level. Therefore, the findings related to sharing emotional support, along with those related to sharing ideas and materials all support the hypothesis that teachers select others with similar assignments for sharing interactions.

The percentage of teachers having no contact with other teachers for emotional support is lower in nearly every cell of Table 7 compared to the percentages of teachers having no contact for sharing ideas (Table 6) or for sharing materials (Table 5). This again reflects the findings of hypothesis one which states that teachers share emotional support with more teachers than they share ideas or materials.

Fox and others (1975) demonstrated that discussions of job-related frustrations and sentiments cut across subject/grade distinctions. Since emotional support is least grade/subject specific, teachers do not restrict their choices for sharing emotional support as much as they do for sharing ideas or materials. Although teachers have been shown to share emotional support with those of the same assignment type, there is some evidence that teachers have the most amount of "crossover" to other assignment types for emotional support contacts, and the least amount of crossover to other assignment types for sharing materials. The findings for the first part of hypothesis two support the studies of Lippitt and others (1967), Greenberger and Sorensen (1972), Newberry (1979) and Fox et al. (1975) which suggest that teachers do tend to restrict sharing interactions within subject/grade boundaries. The current findings indicate that this is true

not only in general terms, but also true when materials, teaching ideas, and emotional support related to teaching are considered separately.

A t-test was used to test the second part of hypothesis two which states that teachers who are the only one with a specific assignment within a building will have sharing interactions with fewer teachers than those who have at least one other with a similar assignment. The total number of different individuals each teacher selected for sharing materials, ideas, or support was computed. Each teacher was counted only once. A group t-test was run to determine if a statistical difference existed between the mean of the number of teachers named for sharing by teachers with and without assignment counterparts within the building. The F-value of variance between groups was not significant ($F = 1.14$, $p = .476$) so a pooled variance estimate was used. Results presented in Table 8 show that no significant difference in the number of teachers selected for sharing between teachers who have counterparts and those who do not, $t = .71$, $p = .481$. Therefore, the data do not support the second part of hypothesis two which states that teachers with no assignment counterpart share with fewer teachers than those who have at least one other teacher in the building with the same assignment.

Table 8. t-test for differences between number of teachers named for sharing by teachers with and without assignment counterparts

Variable	n	\bar{X}	SD	t	df	p
At least one counterpart	221	7.1	4.72			
				.71 ^a	284	.481
No counterpart	65	6.7	4.41			

^aPooled variance estimate.

Further testing was done to determine if significant differences exist between the groups when the numbers of teachers named for sharing materials, ideas, and emotional support are analyzed separately. The average number of persons named who offered materials or to whom materials were offered by each teacher was computed. The same average was found for ideas and emotional support. t-tests were used to test for difference in the average number of teachers named by those with and without counterparts. Table 9 presents findings that show differences in the average number of teachers named by the two groups are still not significant even

Table 9. t-tests for differences among average number of teachers named for sharing materials, ideas, and emotional support

Variables	n	\bar{X}	SD	t	df	p
<u>Materials</u>						
Counterpart	219	2.7	2.30			
				1.35 ^a	281	.178
No Counterpart	64	2.2	2.55			
<u>Ideas</u>						
Counterpart	221	3.4	2.89			
				.06 ^b	89.31	.959
No Counterpart	65	3.4	3.62			
<u>Emotional support</u>						
Counterpart	218	4.1	3.61			
				.96 ^a	281	.338
No Counterpart	65	3.7	3.10			

^aPooled variance estimate.

^bSeparate variance estimate.

when considering materials, ideas, and emotional support separately. There is no support for the second part of hypothesis two. Teachers with no assignment counterpart do not differ in the average number of teachers selected for sharing materials, ideas, and emotional support. The results were not in line with expectations that due to subject/grade restrictions on sharing, "one of a kind" teachers would have sharing contacts with fewer teachers than teachers who have counterparts. There are several considerations that may be helpful in interpreting the results. The study by Barakat and Chesler (1967) may provide a clue. In this study, they found that teachers trained in specialty areas tended to talk to others and share with others more than teachers trained in education only. Nearly all of the specialty trained teachers in the Barakat and Chesler study were secondary teachers so care must be used in applying generalizations to other situations. However, in examining the composition of the group of teachers without counterparts, for the current study, it becomes evident that the majority of them could be considered to have a speciality area such as reading, science, art, music or physical education. It is possible that this group has sharing contacts with teachers of other assignments because of regularly scheduled classes with students of these teachers or because they may be looked upon by

others as having expertise. As Lortie (1971) and Knoblock and Goldstein (1971) observed, teachers are socialized to feel they must be all-knowing and that seeking help is viewed as an inadequacy. However, as Kerr (1977) points out, teachers are more open to suggestions or to asking questions if it concerns an area for which they feel they are not expected to have expertise. Therefore, teachers may use some of the specialty area people without loss of "face" as consultants or as resources with specialized information and equipment. These contacts could offset those lost because there is no opportunity to share with teachers of a like assignment. Further research would be required to determine more about the specific nature of the sharing contacts.

Hypothesis three

The populations of individuals selected for sharing emotional support and socialization are more similar than the populations selected for sharing ideas and socialization or for sharing materials and socialization.

The total number of identical individuals that were selected by a teacher for each of the following pairs was determined.

- a. sharing ideas and socialization
- b. sharing materials and socialization
- c. emotional support and socialization

d. sharing ideas and emotional support

e. sharing materials and emotional support

For pairs a, b, and c, the proportion of matches in pairs was compared to the total number of people selected for socialization. Then paired t-tests were used to determine if there were significant differences in the proportions of matches (identical teachers) between ideas and socialization, materials and socialization, and emotional support and socialization. Table 10 presents the results of the t-tests.

Findings indicate that the proportion of matches of identical teachers chosen for both emotional support and socialization is significantly higher than the proportion of matches between either ideas and socialization or materials and socialization. The matches between ideas and socialization and materials and socialization are not significantly different. The population of others chosen for emotional support is more related to those chosen for socialization than are the populations chosen for sharing teaching ideas or materials. Thus, there is support for hypothesis three. The implication that the populations of those chosen for sharing materials and those chosen for sharing ideas are similar was further tested. Paired t-tests were run on the proportion of matches between identical individuals chosen for both

Table 10. t-tests to compare proportions of teacher matches between different types of sharing interactions

Variables	n	\bar{X}	SD	t	p
% of matches					
Ideas/social	228	.256	.38	-3.34*	.001
Emo Supp/Social		.315	.40		
Materials/Social	215	.272	.33	-2.88*	.004
Emo Supp/Social		.330	.36		
Ideas/Social	224	.269	.33	-.32	.748
Mat/Social		.262	.35		

*p < .005.

ideas and emotional support, and those chosen for both materials and emotional support. The means of both sets of matches were identical ($\bar{X} = .581$). As expected, the difference was not significant, $t(224) = .03$, $p = .977$.

The sharing of materials and teaching ideas is viewed as being more closely related to subject/grade considerations than are emotional support and socialization. Emotional support and socialization choices are more likely to be based upon personal liking and friendship, which according to Greenberger and Sorensen (1972) and Knoblock and Goldstein (1971) are not related to grade/subject considerations. A certain amount of sharing of materials or ideas about curriculum may be required or expected of a teacher as part of the job whether or not the teacher personally likes or trusts the other individuals. However, sharing emotional support has an element of trust and personal involvement. People who enjoy each other socially outside of the school are more likely to have developed a level of personal liking and trust conducive to sharing emotional support. They also have increased opportunity for time together in informal settings which may be more appropriate for sharing feelings than a formal school setting (Marc, 1973).

Although the individuals chosen for sharing emotional support are significantly more similar to those chosen for socializing than are those chosen for sharing materials or ideas, the difference is slight in practical terms. This is largely because the total numbers of teachers socialized with outside of school is relatively small. Nearly 40% of all teachers who responded to the question report that they socialize with no one from the building outside of school, 57% socialize with one other while 3% report socializing with two or more other teachers outside of school. There is no significant difference in the proportions of teachers having no social contact among different assignment types, $\chi = 5.666$, $p = .4617$. These findings support the contentions of Barakat and Chesler (1967), Sergiovanni and Carver (1980) and Lortie (1971) that teachers have affiliation and social needs, but by and large these needs are met outside of the school setting. This conclusion is also reflected in comments by teachers that were written next to items referring to emotional support and socialization. Comments indicated that family, church and other organizations took time away from socializing with other teachers and actually offered a desirable break away from the work setting.

Hypothesis four

The frequency with which teachers receive requests and make requests for emotional support related to teaching is greater than the frequency with which they receive requests and make requests for teaching ideas.

The frequency with which teachers receive requests and make requests for teaching ideas was obtained by finding the composite means of items 22 to 26 and 32 to 36.. These items refer to the frequency of receiving or making requests for ideas for lesson plans/methods, ideas for motivating students, ideas for pupil evaluation, ideas for working with parents, and ideas for working with discipline/management. These items were selected because they represent areas that are common to nearly all teachers. They are broad enough to include many specific situations related to teaching, ideas such as planning small group activities or controlling excessive noise in the classroom. Items 22 to 26 are identical to items 32 to 36 except for the directions. In the case of the former group, teachers are asked to indicate on a scale the frequency with which they receive requests for the various types of ideas. The directions for the latter group ask teachers to indicate the frequency with which they themselves request. On various types of ideas, teachers mark from "never" (1) to "very often" (5).

A composite score to measure the frequency with which teachers receive requests and make requests for emotional support was determined by finding the mean of items 27 through 31 and 37 through 41. The items are constructed in a manner very similar to the items described on page 84, only the item content relates to areas of emotional support instead of teaching ideas. The five areas of emotional support include the following: support for frustration with policies or rules, support in dealing with students, support in dealing with peers or administrators, support in dealing with parents, and support related to personal matters. The basis for selection was to include areas common to most teachers and to be as inclusive as possible within a limited number of items. Items 27 through 31 ask for the frequency with which requests for emotional support are received in each of these areas. Items 37 through 41 ask for the frequency of requesting emotional support in each of these areas.

A paired t-test was used to determine if there was a significant difference between the average frequency of receiving and requesting ideas and the average frequency for receiving and requesting emotional support. Results, as shown in Table 11, indicate that teachers may make and receive requests for emotional support somewhat more frequently than they do for teaching ideas. While the results are significant, the difference in means is slight

Table 11. t-test for frequencies of requests for ideas and emotional support

Variable	n	\bar{X}	SD	t	p
Ideas		2.6	.579		
	276			-5.32*	<.001
Emotional support		2.7	.623		

*p < .001.

so caution should be exercised in interpretation. This is especially true when the degree to which the scales and measures are comparable is not known. The direction of the findings, however, are in agreement with previous studies. Lippitt and Fox (1973) and Knoblock and Goldstein (1971) indicate that teachers are hesitant to ask for ideas related to classroom practices for fear of being viewed as incompetent or of being criticized. In addition, teachers sometimes discount the usefulness of others' suggestions, fail to realize that they have an idea that others would find helpful, or do not seek ideas because of time constraints. Teachers can only use so many new ideas, On the other

hand, emotional support is more non-specific, frequently less time-consuming to provide, and relates to continuous pressures that teachers have in common (Knoblock and Goldstein, 1971). If it is fair to assume that at least some (if not many) of the sharing contacts for emotional support occur in the teachers' lounge, the findings of Fox and others (1975) are also supported. Fox reported that discussions of teaching processes in teachers' lounges are frequently ignored or cut off, but discussion of job-related frustrations are not.

A Pearson correlation between the frequency of making and receiving requests for ideas and the frequency of making and receiving requests for emotional support was also used, $r = .626$, $p < .001$. This indicates that teachers who make or receive the most requests for teaching ideas are also the ones who make and receive the most requests for emotional support. The frequency of requests for emotional support remains higher relative to the frequency of requests for teaching ideas. So it would appear that the pattern is based on the degree to which a teacher chooses to be involved with others, not on whether the exchange involves ideas or emotional support.

It should be noted that even though emotional support is requested more frequently than teaching ideas, the

means of both frequencies fall between "seldom," which is point 2 on the scale, and "sometimes" which is point 3 on the scale. The mean frequency for requesting emotional support is 2.7 and the mean for requesting ideas is 2.6. Teachers apparently do not perceive the making or receiving of requests for either emotional support or ideas to be a frequent occurrence. Factors that may somewhat inhibit the overall amount of sharing are discussed in greater detail with the findings for hypothesis seven which are concerned with barriers for sharing perceived by teachers.

Examination of individual item means for ideas reveals that teachers request ideas for discipline most often and ideas for lesson plans least often. Individual item means for emotional support requests reveal that support for frustration over policies and students are requested most often while requests for support in personal matters and for dealing with parents are requested least often. Data on Table 12 show that the most requested items of all are emotional support in dealing with students and school policies. The least requested item of all is ideas for lesson plans. It is not surprising that lesson plans are low since they are very grade specific and teachers seem to indicate they already have far more good ideas than they have time to implement. It is also not surprising that ideas for discipline and support

Table 12. Individual item mean for requesting ideas and emotional support

Item	Receive requests		Overall rank ^b	Make requests	
	Mean	Rank ^a		Mean	Rank ^a
Ideas					
lessons plans	2.4	1	1	2.3	1
motivating students	2.7	3.5	4.5	2.6	4
pupil education	2.7	3.5	4.5	2.5	2.5
working with parents	2.5	2	2	2.5	2.5
group or individual discipline	2.8	5	7.5	2.7	5
Emotional support					
frustration over policies	3.0	4.5	9.5	2.7	4
frustration over students	3.0	4.5	9.5	2.8	5
frustration over peers and administrators	2.8	3	7.5	2.5	2.5
frustration over parents	2.7	1.5	4.5	2.5	2.5
personal matters	2.7	1.5	4.5	2.4	1

^a1 = lowest frequency; 5 = highest frequency.

^b1 = lowest frequency; 5 = highest frequency.

for dealing with students and school policies are highest in their respective groups. The notion of student discipline problems as the number one educational concern of many teachers, schools, and citizens is reflected by discussions in educational circles, legislative enactments, articles in the popular and professional literature, and by numerous national and local polls. Frustration with school policies is also cited as a concern of many educators and one possible factor in teacher burnout (Grossnickle, 1980).

Hypothesis five

The number of teachers to whom experienced teachers give ideas, materials, and emotional support is greater than the number of teachers who give experienced teachers ideas, materials and emotional support.

The number of individuals named as offering ideas, materials, or emotional support (items 1, 3, 5) were totaled for each teacher. The total number of teachers to whom ideas, materials, or emotional support are offered (items 2, 4, 6) were also totaled. Teacher experience was recoded into those groups with less than five years experience, those with five to fifteen years experience, and those with over fifteen years experience. The groupings were based on those used by Barakat and Chesler (1967) in their study on factors

related to sharing and innovation. The first group represents teachers who are considered to be inexperienced. Teachers with five or more years experience are considered to be experienced teachers. However, this group was subdivided into two groups because there is some evidence that there are differences between teachers with a midrange amount of experience compared to teachers with many years experience. Although this difference had not been shown to be related to sharing, Barakat and Chesler reported a link to the amount of innovation and Greenberger and Sorensen (1972) reported a link with the amount of respect expressed by teachers toward others. In these studies, both the least experienced and the most experienced teachers did less innovating and were respected less than teachers in the middle group.

Three paired t-tests were used to determine if there were significant differences for each experience group between the number of teachers who offer ideas, materials and emotional support, and the number of teachers to whom ideas, materials, and emotional support are offered. Data presented in Table 13 indicate that experienced teachers do give to significantly more teachers than they receive from, while inexperienced teachers do not. Teachers with less than five years experience named an average of 7.9 persons as offering ideas, materials,

Table 13. t-tests of difference between number of teachers who are offered and who offer ideas, materials, and emotional support by years of experience

Variable	n	\bar{X}	SD	t	p
1-4 yrs exp.					
Receive		7.9	4.09		
	20			.36	.720
Give		7.7	3.59		
5-15 yrs exp.					
Receive		9.8	7.20		
	145			-2.49*	.014
Give		10.6	7.54		
Over 15 yrs exp.					
Receive		8.8	7.81		
	128			-3.00**	.003
Give		10.3	7.51		

*p < .05.

**p < .01.

or support and 7.7 to whom these things were offered. The corresponding values for the five to fifteen year group were 9.8 and 10.6, while the means for the over fifteen years group are 8.8 and 10.3. The differences between means are significant beyond the .05 level for both experience groups. Therefore, there is support for hypothesis five.

It would also appear that the group of teachers most involved with others in sharing ideas, materials or emotional support is the group with five to fifteen years experience. This finding follows a pattern similar to those reported by Barakat and Chesler, and Greenberger and Sorensen that were mentioned earlier. The pattern suggests that a teacher needs to have a certain amount of time to experiment and to work at developing a repertoire of teaching skills and materials. Then, perhaps as they get more acquainted, feel more confident that they have something worth offering, and have more time to seek to change or improve on ideas, they get involved with more people. As this mid-range group has been shown to be most respected by other teachers, it is possible this group is more sought out by others as well. After many years of experience, especially in systems that do not reward superior teaching and collaboration (Bredo,

1977; Lortie, 1971), some incentive for seeking out resources or taking the time and energy to offer resources may be lost. Barakat and Chesler (1967) also indicate that energy and commitment necessary for maximally stimulating conditions for innovating and sharing begin to dissipate after many years. They are absorbed by other priorities at school and home. Lippitt and Fox (1973) found that often very experienced teachers view ideas of others as not really new and nothing they had not tried. Thus, they are less prone to seek ideas.

Hypothesis six

A teacher's decision on whether or not to share ideas and materials is influenced more by the factor of personal closeness than by the factors rejection/failure, ownership/competition, or recognition/esteem.

As explained previously in the methodology section, a panel of experts was used to develop and categorize a number of items into four groups. The composite mean scores of these groups were used to measure the following variables. A measure of personal closeness was obtained by finding the average score of items 48, 53, 57, 60, and 63. The circumstances in these items relate to such things as how well a person was known, past experiences with the person, and opportunity for getting to know

someone. A measure of recognition/esteem was obtained by finding the average score for items 43, 44, 47, 52, 61, and 66. The circumstances in these items relate to such things as being perceived as having good ideas, being publically recognized, and receiving praise or credit for ideas. An average score for items 46, 49, 55, 56, 59, 62, and 65 was used as the measure for ownership/competition. These items include such things as keeping ideas or materials to oneself, not getting credit for ideas, and sharing something that requires an investment of time or resources. The final category of items is that of rejection/failure. Items 42, 50, 51, and 54 listed circumstances related to such things as risking criticism or having suggestions rejected. The scores indicate degree of influence each circumstance has on the decision on whether to share. Scores can range from "almost no influence" (1) to "highly influential" (5).

An 11-point scale was created by using the direction indicators of "more likely" and "less likely." For each item 42 to 66, if "more likely" was circled then the new influence score became 6 plus the original influence score. If "less likely" was circled, then the new influence score became 6 minus the original influence score. If both "more likely" and "less likely" were circled the new score became six, the center of the 11-point scale. The means of the composite scores of the four factors of personal closeness,

rejection/failure, recognition/esteem, and ownership/competition are shown in Figure 1.

		a		b			c d			
I	2	3	4	5	6	7	8	9	10	II
highly		somewhat		neither			somewhat		highly	
less		less		less nor			more		more	
likely		likely		more			likely		likely	
				likely						

^aRejection/failure, $\bar{X} = 3.6$.

^bOwnership/competition, $\bar{X} = 5.6$.

^cRecognition/esteem, $\bar{X} = 8.4$.

^dPersonal closeness, $\bar{X} = 8.7$.

Figure 1. Degree and direction of influence on sharing decisions for selected variables

The direction of the means (more likely or less likely) from the neutral center point of the scale are in accordance to expectations based on the review of literature. Barakat and Chesler (1967), Sergiovanni and Carver (1980), and Teevan (1976) all found that recognition for achievement and personal affiliation are powerful social motivators for teachers. Perception of personal closeness has also been found to be related to sharing by Barakat and Chesler. Bredo (1977) reported that teachers seek others with whom they are personally compatible to collaborate. Therefore, the variables of recognition/esteem and personal closeness would be expected to influence teachers to be more likely to become involved in a sharing relationship. In the terminology of social exchange, the possibility of receiving recognition and the possibility of maintaining or achieving a degree of personal closeness are viewed as rewards which would increase the likelihood that an interaction would take place (Thibaut & Kelley, 1959). Knoblock and Goldstein (1971) and Lippitt and Fox (1973) reported reluctance on the part of teachers to ask for or offer suggestions because they feared rejection or believed they would be perceived as inadequate (failures). In addition, hoarding and keeping ones ideas and materials to oneself were reported. It was suggested that this situation may result from an inadequate reward system for

teachers which forces them to vie with one another for the favor of students who are the actual sources of satisfaction and reward (Knoblock & Goldstein, 1971; Lortie, 1971). The possibility of receiving rejection or of losing ownership of ideas or materials that provide a competitive edge are thus expected to influence teachers to be less likely to get involved in a sharing relationship. The possibilities of rejection and loss of ownership are viewed as some of the costs that must be balanced against possible rewards such as recognition/esteem and personal closeness, to determine whether a sharing relationship will take place.

t-tests were used to determine whether the degree or intensity of influence for the variable of personal closeness is significantly higher than the degree of influence for the variables of rejection/failure, recognition/esteem and ownership/competition. The degree of influence was determined by finding the distance of each variable mean from the neutral midpoint on the scale.

The results in Table 14 indicate that the mean distance from neutral for personal closeness is significantly greater than the mean distance of rejection/failure, recognition/esteem, or ownership/competition. Teachers indicate that personal closeness is more influential in deciding whether to share than are the other three

Table 14. t-tests for degree of influence

Variables	n	\bar{X}	SD	t	p
Closeness		2.7	1.318		
	280			2.77*	.006
Recognition		2.4	1.265		
Closeness		2.7	1.274		
	279			2.71*	.007
Rejection		2.4	1.665		
Closeness		2.7	1.301		
	280			20.44**	<.001**
Ownership		.4	1.536		

*p < .01.

**p < .001.

variables. This finding supports hypothesis six and Barakat and Chesler (1967) who demonstrated that there is a positive relationship between feelings of personal closeness and the amount of sharing. Bredo (1977) reported that teachers seek out others with whom they feel compatible for collaboration and sharing.

For descriptive purposes, further t-tests were used to determine if there were significant differences in the mean influence scores of the variables other than personal closeness. A t-test between the means for recognition and rejection revealed no significant difference, $t = .43$, $p = .665$. However, both recognition ($t = 16.00$, $p < .001$) and rejection ($t = 20.09$, $p < .001$) were significantly more influential than ownership with probability beyond the .001 level. Therefore, personal closeness has the highest degree of intensity or influence while ownership/competition has the least. Recognition/esteem and rejection/failure fall between. Based on teacher responses, one could conclude that teachers exhibit very little need to exhibit ownership or to compete or to carve out "territory." No doubt, for many teachers this is true. After all, studies like those of Lipka and Goulet (1979) clearly show that most teachers get into the teaching profession for altruistic reasons including that of helping others. Another possible interpretation for the low influence score of

ownership/competition is that some teachers were hesitant to give these items high influence scores because they viewed them as socially and professionally unacceptable behavior. Part of the reason for looking more closely at this pattern of response is because of other findings that are related to hypothesis seven. When teachers were asked to name barriers to sharing, barriers related to ownership/competition were tied with poor interpersonal relations for the fourth most frequently named category (See Tables 15, 16, and 17). Examples of teacher comments include the following: "Some (teachers) wish to be known as better than their peers"; "Don't want to be shown up"; "Jealousy"; "Possessiveness, feelings of ownership"; and "Afraid of not getting credit." It seems as if this is a somewhat stronger showing than might be expected, based on the low influence score of ownership/competition items reported in Figure 1. It is possible that while teachers may not view themselves as not highly influenced by feelings of competition, they are more willing to attribute such feelings to others. Caution must be exercised in making any interpretive statements. The data on barriers are based on responses from 159 teachers while data concerning the influence of ownership/competition on sharing decisions are based on responses from 286 teachers.

Table 15. Within barriers: Internal perspective, personal feelings^a

Barriers named	No. of teachers
Feelings of inadequacy	30
Representative comments:	
Fear of criticism	
Fear of self-incrimination	
Fear of showing weakness	
Take ideas as criticism	
Insecurity/feel threatened	
Feeling I should be able to cope	
Fear others don't want your ideas	
Fear of depending on others	
Professional jealousy	28
Representative comments:	
Some wish to be known as better than peers	
Don't want to be shown-up	
Jealousy	
Possessiveness, feelings of ownership	
Afraid of not getting credit	
Lack of interest	17
Representative comments:	
Some don't care	
An "8 to 4" attitude	
New ideas are too much work for some	
Some teachers are in a rut	
Isolationism/Autonomy	16
Representative comments:	
Teachers like privacy	
Each teacher has right to run own room	
Isolationist attitude	
Teachers will think it's none of my business	
Some don't want to work with others	
Teachers want to be left alone	
Importance of keeping ideas and materials "fresh" for students	15
Representative comments:	
Want to keep some things special	
Want to avoid student complaints of repetition	
Avoid duplication	
Keep creativity, teachers shouldn't be alike	

^aBarriers named by at least five teachers, in order of frequency. Representative comments are not in any given order.

Table 16. Interpersonal barriers: Peer and administrator relations^a

Barriers named	No. of teachers
Lack of communication, poor interpersonal relations	28
Representative comments:	
Poor communication	
Don't know each other	
Afraid to discuss in groups	
Don't know each other well enough to trust each other	
Don't know others' needs	
Inadequate support/recognition from peers	
Some don't keep confidences/gossip	
Interpersonal differences	14
Representative comments:	
Split between married and single teachers	
Sex differences	
Ethnic differences	
Ratio of female to non-female teachers	
Age differences	
Role of principal	11
Representative comments:	
Teachers compete for principal recognition	
Principal treating some as "pets"	
Inadequate recognition from administration	
Role change in relation to staff - only a manager, not an instructional leader	
Cliques	8
Representative comments:	
Grade level cliques	
Upper and lower units don't interact	
Social cliques	
Lack of reciprocity	7
Representative comments:	
There are always "takers"	
Some don't reciprocate willingly.	

^aBarriers named by at least five teachers, in order of frequency. Representative comments are not in a given order.

Table 17. Environmental barriers: Physical, temporal, organizational structure and policies^a

Barriers named	No. of teachers
Lack of time/heavy workload	107
Representative comments:	
Time!!	
Not enough time	
Not enough time to get together	
No time to use more ideas	
Can't get own work done, no time for others	
Differences in grade/subject	
Representative comments:	
Different grades use different methods/materials	36
Teaching aids are different	
Departmentalization	
No one else teachers my subject	
Physical structure/arrangement	27
Representative comments:	
Lounge too far for convenience	
Too far away from others	
Lack of lounge	
Smoker/non-smoker lounges	
Separation	
Schedule conflicts	27
Representative comments:	
Never in lounge at the same time	
Schedules don't match	
Separate lunch and recess schedules	
Replacement difficulties	10
Representative comments:	
Limited supplies	
Unavoidable loss	
Can't replace damaged items	
Administrative/building policy	7
Representative comments:	
Administration doesn't provide meetings	
District doesn't encourage getting together	
Rule we must stay in our own rooms	
No leader designated to arrange sharing	

^aBarriers named by at least five teachers, in order of frequency. Representative comments are not in any given order.

Sergiovanni and Carver (1980) reported that, while teachers have a high need for achievement and recognition, teachers "learn" not to expect esteem and recognition as a result of teaching. Teachers must fill their needs outside of school. The more experience a teacher has the less expectation for esteem the teacher expresses. Support for these findings was demonstrated in the current study. A Pearson correlation coefficient was run to determine if there was such a relationship between the influence score for the variable recognition/esteem and years of teaching experience. A low, but significant negative correlation was found, $r = -.17$, $p = .002$. In other words, the more experience a teacher has the lower they score the influence that recognition/esteem has on their sharing decisions. No such relationship was found between experience and ownership, rejection or personal closeness.

Hypothesis seven

Teachers who believe that sharing is encouraged in their building will name a smaller proportion of environmental factors as barriers to sharing than will teachers who believe sharing is not encouraged in their building.

Data used to test hypothesis seven were based on responses from 159 teachers who completed the open-ended question that asked teachers to name at least two barriers to sharing among teachers. Up to three responses were recorded for each teacher. Only four teachers listed more than three

responses. In those situations, only the first three were coded. Each response was coded to indicate whether it was an environmental barrier, an interpersonal barrier, or as a "within" (personal) barrier. These categories are based on those used by Lippitt and his colleagues (1967) to categorize barriers to sharing named by teachers. The comments by teachers were also recorded verbatim to provide examples to clarify the meaning of each group and to help in replicating the Lippitt groupings as faithfully as possible. For descriptive purposes, subcategories of barriers were arranged under the broad headings of environmental, interpersonal, and within factors. Any specific barrier named by at least five teachers was identified and its frequency computed (See Tables 15, 16, and 17.).

The degree to which teachers believe sharing is encouraged in their buildings were measured by a composite score of items 17, 18, and 19. These items refer to whether teachers feel the sharing of ideas, materials, and emotional support is encouraged in their buildings. Teachers marked each item on a scale from "never" to "very often." Based upon a composite mean of these items, teachers were divided into two groups. Those whose mean was above the total group mean of 3.2 were coded into one group. Those whose individual means were at or below the total group mean of 3.2 were coded into a different group. A Chi-square

Table 18. Chi-square analysis of environmental barriers and perceived level of encouragement for sharing

Level of encouragement	n	Number of environmental factors named		
		% naming 0	% naming 1	% naming 2
Low	85	37.6	32.9	29.4
High	74	24.3	28.4	47.3
	<u>159</u>	$\chi^2 = 5.85$		
		df = 2		
		p = .053		

test of significance was used to determine if the two groups varied significantly in the proportion of those naming zero, one, or two environmental barriers. Table 18 shows the results. The teachers in the group that perceived low encouragement for sharing had a larger percentage of teachers naming zero environmental barriers and a smaller percentage of teachers naming two environmental barriers than did teachers in the group who perceived high encouragement for sharing. While the findings are not significant

at the .05 level, a probability of .053 suggests the possibility of a relationship between the amount of encouragement for sharing perceived by teachers and the proportion of environmental barriers named by teachers. A Chi-square test does not reveal the direction of a relationship, however, an examination of the percentages indicates a trend for teachers who perceive low encouragement for sharing to name fewer environmental barriers than teachers who perceive high encouragement for sharing. This trend is the opposite of what was expected. It was expected that while all teachers would name more environmental barriers to sharing than either interpersonal or within barriers (Bredo, 1977; Lippitt et al., 1967), those who did not perceive an encouraging climate for sharing would be more likely to identify and give more "blame" to environmental factors. This expectation was based in part on the findings of Bredo and Lippitt that suggest teachers perceive environmental factors as related to amount of sharing within their buildings. Therefore, as the number of environmental barriers perceived by teachers declined, it was expected that the teachers would perceive more encouragement for sharing.

It would seem that perhaps at least a partial explanation of the trend observed in the above data can be derived from findings of Barakat and Chesler (1967), Bredo (1977), Knoblock and Goldstein (1971), and from data reported for

hypothesis six. What these findings have in common is that they all point to the importance of feelings of personal closeness in sharing relationships. The teachers in the group who perceived low encouragement for sharing named a smaller proportion of environmental factors but that also means that they named a higher proportion of interpersonal and within factors operating as barriers to sharing. In other words, these teachers have a greater concern about such things as lack of communication, lack of trust, feelings of inadequacy, jealousy and disinterest than do teachers who perceive more encouragement for sharing. The psychological, social climate is not seen by the first group as conducive to sharing. For the group which perceives more encouragement for sharing, it is possible that the encouragement has already had a positive effect on the personal/interpersonal climate within the school. Perhaps teachers are more concerned with environmental factors because they sense fewer personal/interpersonal barriers. Perhaps they have attempted more sharing interactions and have become acutely aware of how physical, temporal, and organizational considerations have thwarted their efforts. It is also possible that the attempts to encourage sharing whether they be trying to arrange mutual sharing times or rearranging the teachers' lounge has created an awareness of the role that environment plays in sharing.

Tables 15, 16 and 17 include descriptive data concerning all responses given by teachers to item 21. As in the Lippitt and Fox (1973) study and in the study by Lippitt and his colleagues (1967), more environmental barriers were named than any other. The specific environmental barrier of insufficient time was named by about two-thirds of all teachers, and was named three times more often than any other barrier (Table 17). Grade/departmental differences, physical structure and scheduling conflicts were also named frequently as environmental barriers. Within or personal barriers named most often by teachers include feelings of inadequacy and professional jealousy (Table 15). These feelings were also frequently mentioned in the studies by Barakat and Chesler, and by Knoblock and Goldstein that have been referred to previously. Lack of interest, isolationist attitude and the desire to avoid duplication were other within barriers mentioned by teachers. Finally, data on Table 16 show that teachers name lack of communication more often than any other interpersonal barrier to sharing. Comments indicate a lack of trust and concern for one another. Teachers also recognize the interpersonal differences related to age, sex, marital status and race can keep people apart. The comments, taken together, present a picture similar to that presented by research findings throughout the literature.

Hypothesis eight

There is a positive correlation between teacher perception of the amount of sharing within a building and perception of the degree of encouragement for sharing within a building.

The measure for the degree to which teachers believe sharing is encouraged in their buildings is the same measure used to test hypothesis seven. The measure is a composite score derived from the means of items 17, 18 and 19. These items refer to whether a teacher feels the sharing of ideas, materials, and emotional support is encouraged within their building (never to very often). The measure for the amount of sharing perceived by teachers is a composite score derived from the mean score of items 10, 13, and 16. These items ask whether ideas, materials, and emotional should be shared much less to much more in their buildings. This scale was reversed so that the most positive responses were on the same ends of both scales and the most negative responses were both on the other end of the scales. A Pearson correlation coefficient was computed to test for a relationship between the two measures. The resulting positive correlation is significant beyond the .001 level, $r = .41$, $p < .001$. This means that teachers who believe encouragement for sharing is low in their building also feel that the amount of sharing is low. Those who perceive more encouragement for

sharing within their building are more likely to feel the amount of sharing is about right.

The above finding supports hypothesis eight. The link between the amount of sharing perceived by teachers and the perceived degree of encouragement for sharing within a building also supports the research findings of Lippitt and Fox (1973) who reported that teachers perceive environmental factors within their building and district as related to the overall amount of sharing that takes place. This conclusion also supports the contention of numerous educational administrators, who through their experience and observation have come to believe that the physical and psychological climate of schools shape the behavior of persons working within the schools (Cook, 1979; Grossnickle, 1980; Marc, 1973, 1976; Miller, 1981; and Peterson, 1973-1974).

The results from hypothesis eight could have been more clearly interpreted if the nature of the perceived encouragement had been specified. It is probable that many teachers associated encouragement for sharing within a building with actions or attitudes on the part of the school administrators. Since no specific mention is made of the role of the principal, however, caution should be exercised in making any assumptions about the nature of the perceived encouragement. However, it has been shown that the

attitude of the principal is essential to the climate perceived by teachers (Barakat & Chesler, 1967; Braukmann, 1980; Carr, 1976; Halpin, 1966; Lippitt & Fox, 1973; and Miller, 1981). Teachers from buildings where the principal is perceived as supporting sharing and innovating do, in fact, share and innovate more than teachers from buildings where the principal is not perceived as encouraging sharing and innovating. On the other hand, it has also been shown that a principal can go past the point of optimum encouragement and get too close to and too concerned with teachers. At this point, teachers may feel they are being "hovered" over and do not feel the freedom necessary to innovate and share freely (Barakat & Chesler, 1967). Clear (1970) and Lortie (1975) demonstrated that the teachers' norm of autonomy includes autonomy from the influence of an authority figure. Many teachers are bound by a code not to be influenced or appear to be influenced by authority of position or authority of knowledge figures irrespective of the merit of the suggestion. Therefore, the principal must walk a very fine line. On one side, the principal is perceived as the key to a climate that will encourage or discourage sharing within a building. On the other side, if a principal's actions become too overt or too direct, the influence could have precisely the opposite effect of that intended.

Other findings

No teachers of special education were asked to complete the questionnaires. However, their names were included in the list of personnel from which teachers selected individuals with whom they shared materials, ideas, and emotional support. Therefore, it is possible to report the extent to which non-special education teachers indicate that they have sharing interactions with special education teachers. Table 19 presents the percentage of each teacher assignment type that has at least one sharing interaction during a typical month with a special education teacher. The data indicate that no assignment group has a significantly different proportion of teachers who have sharing interactions with special education staff members. This is true for teaching materials, teaching ideas and emotional support. In fact, the percentages of teachers across assignment groups look strikingly similar. The percentages of teachers having at least one contact with a special education teacher for any type of sharing interaction varies less than twenty per cent. Although only 22% to 29% of the K-3 teachers share materials or ideas with special education teachers that is still greater than the 8% to 24% of the K-3 teachers who share materials and ideas with 4-6 self-contained or departmentalized teachers. The same pattern holds true for 4-6 self-contained teachers and for departmentalized

Table 19. Non-special education teacher interactions with special education teachers^a

Assignment type	n	Sharing ideas		Sharing materials		Sharing emotional support	
		% no contacts	% contacts	% no contacts	% contacts	% no contacts	% contacts
K-3	150	70.7	29.3	78.0	22.0	70.0	30.0
4-6 self-contained	71	62.0	38.0	73.2	26.8	57.7	42.3
Dept. basic subjects	28	75.0	25.0	67.9	32.1	57.1	42.9
Dept. special subjects	39	76.9	23.1	84.6	15.4	71.7	28.2
	288	$\chi^2 = 3.4183$		$\chi^2 = 3.2133$		$\chi^2 = 4.7953$	
		df = 3		df = 3		df = 3	
		p = .332		p = .360		p = .188	

^aThe frequencies are not included to improve readability of the table. Frequencies can be obtained by multiplying the percentages in a category by n of the assignment type.

basic subjects teachers. In other words, it has already been reported that these groups are most likely to share ideas and materials within their own assignment type. However, the next group with whom they are likely to share ideas and materials is the special education teachers. This generalization does not hold true for special subjects teachers nor does it apply to emotional support. These findings seem to be in accord with those reported earlier. The self-contained classroom teachers and the basic subjects teachers probably have more in common with the special education teachers than do special subjects teachers--particularly in the areas of reading, language arts and math. In addition, the role of many special education teachers includes that of being a resource person and consultant for the classroom teacher to assist in planning educational programs for students with special needs. Indeed, with such a role definition, often mandated by provisions of special education legislation, it seems somewhat surprising that 62% or more of the general education classroom teachers indicated they have no contact to share ideas or materials with special education teachers. However, it should be kept in mind that the number of special education teachers is considerably less than the number of general classroom teachers. In addition, as Kerr (1977) and Clear (1970) both reported, many teachers resist the notion of being influenced by an authority-of-knowledge

or authority of position figure so teachers may not utilize the full potential of special educators as resources for materials and ideas. Also, according to Knoblock and Goldstein (1971) special education classrooms tend to be clustered together frequently out of the mainstream of the other classroom areas or traffic patterns. This would limit the number of opportunities for spontaneous interactions and socialization with other teachers which are often the breeding ground for sharing interactions.

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

This study was conducted to identify attitudes toward sharing as well as sharing practices and patterns among elementary teachers, particularly as they relate to assignment types and levels of experience. The sample population consisted of 293 non-special education elementary teachers from buildings with traditional K-6 graded organization. Data were gathered by means of a questionnaire that consisted of open-ended questions, rating scales and sociometric type questions.

Eight hypotheses were tested. The significance level of .05 was used. The first four hypotheses all have to do with the subject/grade relatedness of sharing patterns. Patterns were examined to determine if some type of sharing interactions are more grade/subject specific than others and the extent to which teachers restrict sharing interactions to teachers of the same assignment type. It was found that teaching materials are viewed as most subject/grade related. Teaching ideas are still subject/grade related but less so than materials. The sharing of emotional support is least restricted by subject/grade considerations. t-tests showed emotional support is shared with significantly more teachers than are ideas. Ideas are shared with significantly more teachers than are materials. It was also found that teachers

make requests and receive requests for emotional support significantly more often than they make or receive requests for teaching ideas. The greater number of contacts to share emotional support than either materials or ideas reflects two considerations. First, because teachers do not restrict emotional support choices to subject/grade there is a larger "pool" from which to select. Secondly, teachers expressed the belief that they do not have the time or need to implement new ideas on a continuous basis while emotional support is more of an on-going process. Chi-square tests revealed that teachers do significantly select others of the same assignment type for sharing interactions with materials showing the most restrictions and emotional support the least. Primary teachers appear to have less contact with teachers outside their assignment than do grades 4-6 self-contained teachers or departmentalized teachers. If primary and grade 4-6 self-contained teachers and departmentalized basic subjects teachers do venture outside of their assignment type for ideas or materials, the next most likely group with whom they interact is that of special education teachers. Contrary to expectations, t-test results showed that teachers who are the only one with a given assignment within a building have as many sharing interactions with other teachers as do teachers

with at least one other assignment counterpart. Many of the teachers with no counterpart are special subject teachers. The fact that they have no counterpart with whom to share appears to be offset by the uniqueness of their role which puts them into regular contact with other teachers due to scheduling and due to their potential as a specialized resource person. There is one last finding related to the first four hypotheses. t-tests revealed that individuals selected for sharing emotional support and for socialization are more often the same ones than are those selected for sharing ideas and socialization or for sharing materials and socialization. While the sharing of ideas and materials tend to be subject/grade related, sharing of emotional support and socialization are more related to personal liking and friendship.

Results of t-tests established support for hypothesis five which states that the number of teachers to whom experienced teachers give ideas, materials and emotional support is greater than the number of teachers who give experienced teachers ideas, materials, and emotional support. This is true for teachers with five or more years of experience, although it appears that teachers with five to fifteen years experience are involved in sharing interactions with more teachers than are those with more than fifteen years experience. Teachers with less than five

years experience indicate that they receive slightly more from others than they give to others. There is some indication that the number of sharing interactions tends to increase after the first five years during which a teacher has been involved in establishing themselves in the profession. During the mid-range of experience, the number of sharing interactions peaks and then levels off or drops slightly as experience continues.

Hypothesis six states that when teachers decide whether or not to share ideas or materials, personal closeness is a more influential factor in that decision than is fear of rejection/failure, feelings of ownership/competition or opportunity for recognition/esteem. t-tests were used to compare the composite means of scale ratings given to clusters of items related to each of the four factors. It was found that the degree of influence for personal closeness items is significantly higher than the degree of influence for rejection/failure, ownership/competition, or recognition/esteem. Feelings of personal closeness and opportunity for recognition/esteem are factors that teachers indicate will make them more likely to share. Fear of rejection/failure will make teachers less likely to share as will feelings of ownership/competition but to a lesser degree.

The last two hypotheses examine variables in relation to the degree that teachers perceive sharing is encouraged

within their buildings. Hypothesis seven states that teachers who believe that sharing is encouraged in their buildings will name a smaller proportion of environmental factors as barriers to sharing than will teachers who believe sharing is not encouraged in their building. The measure for encouragement was derived from a composite mean of scale scores. Barriers were listed as an open-ended response. A Chi-square test was used to test the proportion of environmental factors (versus personal or interpersonal factors) between teachers above and below the mean on the encouragement score. Results, while not significant, indicate that there is some evidence that teachers who believe sharing is encouraged actually name a larger proportion, $p = .053$. This finding is the opposite of what was expected. It is possible that in buildings with higher levels of encouragement for sharing, some of the personal/interpersonal barriers had been reduced and thus awareness of the remaining physical and temporal barriers were enhanced. Hypothesis eight states that there is a positive correlation between the amount of sharing within a building perceived by teachers and the degree of encouragement for sharing within a building perceived by teachers. Measures for both variables were composite scores derived from rating scales. A Pearson correlation coefficient showed that there was a significant positive relationship. The more perceived

encouragement, the more likely teachers thought sharing was about right. The lower the perceived encouragement for sharing, the less sharing they perceived.

Conclusions

Based upon the discussion in the previous chapters and the related findings reported in the literature, several generalizations or conclusions can be drawn. The barriers to increased professional sharing among teachers are formidable. A picture emerges that shows many teachers value sharing, but are busy individuals with little opportunity for interaction beyond that of a superficial or perfunctory nature. Sharing and collaboration involve a number of costs, not only in terms of time, energy, and inconvenience, but also in terms of psychological risk-taking. School organizations do not give material rewards or recognition to teachers for sharing and collaboration, or for improved effectiveness that may result from sharing. Teachers have learned not to expect rewards for sharing beyond what they may derive from their own feelings. If increased professional sharing is deemed desirable, ways must be found to lower the costs of collaboration while increasing the rewards. Environmental as well as personal/interpersonal barriers must be considered. While improving such things as physical layout, teachers'

lounges and time schedules may facilitate and nurture sharing interactions, environmental changes alone will not assure increased sharing. Important as these changes are, concentrating on changes in the environment alone may not take into account the importance of feelings of closeness and improved interpersonal relations that must evolve before the amount and the depth of sharing can change. Researchers have shown that both environmental conditions and interpersonal processes must be addressed (Brenner, 1971; Lippitt and Fox, 1973; and Nelson et al., 1974).

Even with optimum conditions for sharing, the entire faculty can not be expected to become involved with in-depth sharing relationships with every other faculty member. The feelings of trust and personal closeness necessary to overcome the risk-taking involved in all but the most superficial sharing relationship can not exist in large groups. Cliques of less than seven, and usually only two, three or four, are characteristic of sharing patterns. It should also be kept in mind that not everyone is unhappy about a low level of professional sharing. Some teachers are comfortable with the norm of autonomy and find it satisfying to be solely responsible for their own failures and successes.

The individualistic tone that characterizes the public school teacher plays an important role in establishing

teacher peer relationships such as sharing. This individualistic tone is strengthened by the way teachers are socialized and rewarded, and by the way professional growth opportunities focus on individual needs instead of on the continuous growth of the entire educational community. In order to modify the individualistic tone and to enhance the level of teacher peer interactions, ways would have to be found to free teachers from subject/grade limits by helping them discover their commonalities. More assistance to the beginning teacher would help them feel a part of a community of teachers with a common body of expertise and pedagogical principles. In-service for teachers would need to focus on building a colleague interaction network from which both knowledge and support can be drawn. The value placed on skills and expertise present within a faculty group could play a part in maintaining the growth and commitment of even the most experienced teacher. A statement made in the introductory chapter seems appropriate to use to summarize many of the findings, observations, and opinions that have been expressed throughout. Professional sharing among teachers is viewed by many educators as a valuable resource with potential for promoting and maintaining personal and professional growth for teachers. It is a resource that is often within sight, yet for many, remains out of reach.

Recommendations for Future Research

Additional study in regard to professional sharing among teachers that could clarify and extend findings from this current study include:

1. A follow-up study to identify environmental differences between buildings in which teachers were satisfied with the amount of sharing and buildings in which teachers said there should be much more sharing.
2. A study to determine what specific behavior on the part of school administrators is viewed by teachers as encouraging sharing.
3. An ethnographic study to provide a more detailed analysis of the type, depth, and frequency of sharing interactions.
4. A study to establish whether there is a link between the degree of sharing within a building and a measure of teacher effectiveness.
5. A study to determine if an intervention model designed to increase the amount of peer interactions can have a long-term effect on the amount and depth of sharing interaction.

6. A follow-up study to obtain complete socio-metric data to compare sharing interaction patterns of schools whose teachers report a high degree of encouragement for sharing to schools whose teachers report a low degree of encouragement for sharing.

REFERENCES

- Alfonso, R. Will peer supervision work? Educational Leadership, 1977, 34, 594-601.
- Barakat, H. I., & Chesler, M. A. The innovation of teaching practices I--A study of professional roles and social structures in schools. Ann Arbor, Mich.: Michigan University, Institute for Social Research, 1967. (ERIC ED 014 816)
- Blau, P. M. The dynamics of bureaucracy. Chicago: University of Chicago Press, 1955.
- Blumberg, A. Supervisors and teachers: A private cold war. Berkeley, Calif.: McCutchen Publishing Corporation, 1974.
- Braukmann, W. T. Techniques to improve the educational climate of your school. Paper presented at the annual meeting of the National Association of Secondary School Principals, Miami Beach, Florida, January 1980. (ERIC ED 182 861)
- Bredo, E. Collaborative relations among elementary school teachers. Sociology of Education, 1977, 50(4), 300-309.
- Brenner, A. M. Self-directed T-groups for elementary teachers: Impetus for innovation. Journal of Applied Behavioral Science, 1971, 7(3), 327-341.
- Bryant, G., & Haack, F. Appraisal: Peer-centered and administrator-centered. Educational Leadership, 1977, 34(8), 608-612.
- Carr, R. A. Principal-centered preventive consultation. Group and Organization Studies--The International Journal for Group Facilitators, 1976, 1(1), 455-473.
- Charters, W. The social background of teaching. In N. Gage (Ed.), Handbook of research on teaching. Chicago: Rand McNally, 1963.
- Clear, D. K. Supervision in an educational organization. IRS Journal, 1970, 2, 137-146.

- Conway, J. A. Power and decision making in selected English schools. Journal of Educational Administration, 1978, 16(1), 80-96.
- Cook, D. H. Teacher morale: Symptoms, diagnosis and prescription. Clearing House, 1979, 52(8), 355-358.
- Dillich, L. S. The job market for teachers in the 80's. Occupational Outlook Quarterly, 1980, 24(23), 22-27.
- Doyle, W., & Olszewski, R. Colleague interaction and teacher performance. Education, 1975, 95(3), 276-279.
- Evans, K. M. Sociometry and education. New York: The Humanities Press, 1962.
- Fox, D. J., et al. Supportive training for inexperienced and new teachers (STINT). Part I. New York: Center for Urban Education, 1969. (ERIC ED 035 582)
- Fox, R., Schmuck, R., Van Egmond, E., Ritvo, M., & Jung, C. Diagnosing professional climates of schools. Fairfax, Va.: NTL Learning Resources Corp., 1975.
- Greenberger, E., & Sorensen, A. Interpersonal choices among a J.H. school faculty. Sociology of Education, 1972, 44(2), 198-216.
- Grossnickle, R. A. A life-support system for teachers. Clearing House, 1980, 54(3), 135-137.
- Halpin, A. W. Theory and research in administration. New York: Macmillan, 1966.
- Homans, G. Group factors in worker productivity. In E. Maccabv, T. Newcomb & E. Hartley (Eds.), Readings in social psychology. New York: Holt, Reinhart, and Winston, 1958.
- Homans, G. Social behavior: Its elementary forms. New York: Harcourt, Brace, Jovanovich, 1974.
- Hook, C. M. & Rosenshine, B. V. Accuracy of teacher reports of their classroom behavior. Review of Educational Research, 1979, 49(1), 1-12.
- Jennings, H. N. Leadership and isolation. New York: Longmans Green, 1950.

- Keef, J. L. Teacher restlessness and decision making. Clearing House, 1979, 52(9), 410-412.
- Kerr, S. T. Are there instructional developers in the schools? AV Communication Review, 1977, 25(3), 243-267.
- Knoblock, P., & Goldstein, A. The lonely teacher. Boston: Allyn and Bacon, Inc., 1971.
- Lipka, R. P., & Goulet, L. R. Aging- and experience-related changes in teacher attitudes toward the profession. Educational Research Quarterly, 1979, 4(2), 19-28.
- Lippitt, R., et al. The teacher as innovator, seeker and sharer of new practices. In R. I. Miller (Ed.), Perspectives on educational change. New York: Appleton-Century-Crofts, Inc., 1967.
- Lippitt, R. O., & Flanders, M. P. Sharing good teaching practices. NEA Journal, 1965, 54(9), 30-32.
- Lippitt, R. O., & Fox, R. S. Identifying, documenting, and sharing innovative classroom practices. Ann Arbor, Mich.: Michigan University, Center for Research on Utilization of Scientific Knowledge, 1973. (ERIC ED 083 064)
- Lortie, E. D. Structure and teacher performance: A prologue to systematic research. In U.S. Department of Health, Education, and Welfare, Office of Education, How teachers make a difference. Washington, D.C.: Government Printing Office, 1971.
- Lortie, D. C. School teacher. Chicago: University of Chicago, 1975.
- Marc, R. Loneliness in the schools. Niles, Ill.: Argus Communications, 1973.
- Marc, R. School morale, the human dimension. Niles, Ill.: Argus Communications, 1976.
- McNeil, J. D. Can suggestions by teachers improve instruction? Journal of Experimental Education, 1976, 44(3), 14-16.

- Miller, D. C. Handbook of research design and social measurement (3rd ed.). New York: David McKay Company, Inc., 1977.
- Miller, W. C. Staff morale, school climate, and educational productivity. Educational Leadership, 1981, 38(6), 483-486.
- Mouton, J., Blake, R. & Fruchter, B. The reliability of sociometric measures. In J. Moreno (Ed.), The sociometry reader. Glencoe, Illinois: The Free Press, 1960.
- Nelson, J., et al. Collegial supervision: A sub-study of organizational development in multi-unit schools. Eugene, Ore.: Oregon University, Center for Educational Policy and Management, 1974. (ERIC ED 166 841)
- Newberry, J. M. The beginning teacher's search for assistance from colleagues. Canadian Journal of Education, 1979, 44(1), 17-27.
- Oppenheim, A. N. Questionnaire design and attitude measurement. New York: Basic Books, 1966.
- Ornstein, A. C. Teacher surplus? Trends in education's supply and demand. Educational Horizons, 1979, 57(3), 112-118.
- Peterson, V. Let's RAP, coffee house for teachers. Teacher Education, 1973-1974, 9(2), 33-36.
- Pettibone, T. J. Organizational and interpersonal dimensions of the elementary school. Paper presented at American Educational Research Association Annual Meeting, New York, February 1971. (ERIC ED 047 414)
- Renner, H. H. Introduction to opinion and attitude measurement. New York: Harper & Brothers, 1954.
- Rice, R. K. The relationship between organizational climate and student achievement (Doctoral dissertation, University of California, Los Angeles, 1968). Dissertation Abstracts International, 1968, 29, 1731A-1732A. (University Microfilms No. 68-16,507).

- Sergiovanni, T. J., & Carver, F. D. The new school executive--A theory of administration (2nd ed.). New York: Harper Row Pub., 1980.
- Seyforth, J. Assessing causes of teacher attitudes toward team teaching. Education, 1978, 98(3), 297-300.
- Solo, L. Sharing power in a public school. National Elementary Principal, 1979, 58(3), 17-75.
- Sonquist, J. A., & Dunkelberg, W. C. Survey and opinion research: Procedures for processing and analysis. Englewood Cliffs, New Jersey: Prentis-Hall, Inc., 1977.
- Teevan, R. C. Personal communication. New York: Van Nostrand Reinhold, 1976.
- Thibaut, J. W., & Kelley, H. H. The social psychology of groups. New York: John Wiley and Sons, Inc., 1959.
- Thomas, E. J., and Fink, C. F. Effects of group size. Psychological Bulletin, 1963, 60(4), 371-384.
- Trask, A. E. Principals, teachers and supervision: Dilemmas and solutions. The Administrator's Notebook, 1964, 13(4), 1-4.
- Walz, G., & Miller, J. School climate and student: Implications for counselor role. Personnel and Guidance Journal, 1969, 47(9), 859-867.
- Whitney, D. R. The questionnaire as a data source. (Technical Report No. 13). University of Iowa: University Evaluation and Examination Service, 1972.
- Youngs, B. B. Anxiety and stress--how they affect teachers, teaching. NASSP Bulletin, 1978, 62(421), 78-83.
-

ACKNOWLEDGMENTS

I wish to thank members of my committee and my chairperson, Dr. Lynn Glass for their suggestions and support throughout the research project. I also wish to thank the participating public school teachers and administrators who made the study possible.

APPENDIX A

TEACHER SHARING QUESTIONNAIRE

DIRECTIONS: After completing the questionnaire, please seal it in the envelope provided and return it within a week. Thank you very much.

Dorothy Engstrom
N221 Quadrangle
Iowa State University

Part I

- Years of teaching experience _____
- Years taught in current building _____
- Years taught at current assignment _____

Part II

Directions: From the enclosed Personnel List choose as many names as necessary to answer each question fully. Circle the numbers that correspond to the names of your choices. If you select no names, circle "none".

-
1. Who comes to you and offers to share teaching ideas during a typical month?
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 none
Altogether, how many times per month does this happen? _____
 2. To whom do you offer to share teaching ideas during a typical month?
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 none
Altogether, how many times per month does this occur? _____
 3. Who comes to you and offers to share teaching materials during a typical month?
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 none
Altogether, how many times per month does this happen? _____
 4. To whom do you offer to share teaching materials during a typical month?
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 none
Altogether, how many times per month does this happen? _____
 5. Who offers you support of emotional needs related to teaching during a typical month?
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 none
Altogether, how many times per month does this happen? _____
 6. To whom do you offer support of emotional needs related to teaching during a typical month?
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 none
Altogether, how many times per month does this happen? _____
 7. With whom do you socialize outside of the school setting during a typical month?
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 none

Directions: Circle the number that best describes your feelings.

	should be much less	should be somewhat less	is about right	should be somewhat more	should be much more
8. The amount of teaching ideas I give to others . . .	1	2	3	4	5
9. The amount of teaching ideas I receive . . .	1	2	3	4	5
10. The overall amount of teaching ideas shared among teachers in my building . . .	1	2	3	4	5
11. The amount of teaching materials I give . . .	1	2	3	4	5
12. The amount of teaching materials I receive . . .	1	2	3	4	5
13. The overall amount of teaching materials shared among teachers in my building . . .	1	2	3	4	5
14. The amount of support of emotional needs related to teaching I give to others . . .	1	2	3	4	5
15. The amount of support for emotional needs related to teaching I receive from others . . .	1	2	3	4	5
16. The overall amount of support for emotional needs among teachers in my building . . .	1	2	3	4	5

Part IV

Directions: Circle the number that best describes your feelings.

	never	seldom	some- times	quite often	very often
17. Is sharing of teaching ideas encouraged in your building?	1	2	3	4	5
18. Is sharing of teaching materials encouraged in your building?	1	2	3	4	5
19. Is sharing of support for emotional needs related to teaching encouraged in your building?	1	2	3	4	5
20. Are there things you would like to share with other teachers that you can't or won't? Please give an example: _____	1	2	3	4	5
21. List at least two barriers to sharing among teachers: _____					

Part V

Directions: Circle the number that best represents the frequency with which you receive requests from other teachers for each item below.

	never	seldom	some- times	quite often	very often
22. ideas for lesson plans/teaching methods	1	2	3	4	5
23. ideas for motivating students	1	2	3	4	5
24. ideas for pupil evaluation	1	2	3	4	5
25. ideas for working with parents	1	2	3	4	5
26. ideas for dealing with group management or individual discipline	1	2	3	4	5
27. support in dealing with frustration over policies or rules relating to teaching	1	2	3	4	5
28. support of emotional needs related to dealing with students	1	2	3	4	5
29. support of emotional needs related to dealing with other teachers or administrators	1	2	3	4	5
30. support of emotional needs related to dealing with parents	1	2	3	4	5
31. support of emotional needs related to personal matters	1	2	3	4	5

Directions: Circle the number that best represents the frequency with which you request each item below from other teachers.

	never	seldom	sometimes	quite often	ver/often
32. ideas for lesson plans/teaching methods	1	2	3	4	5
33. ideas for motivating students	1	2	3	4	5
34. ideas for pupil evaluation	1	2	3	4	5
35. ideas for working with parents	1	2	3	4	5
36. ideas for dealing with group management or individual discipline problems	1	2	3	4	5
37. support in dealing with frustration over policies or rules related to teaching	1	2	3	4	5
38. support of emotional needs related to dealing with students	1	2	3	4	5
39. support of emotional needs related to dealing with other teachers or administrators	1	2	3	4	5
40. support of emotional needs related to dealing with parents	1	2	3	4	5
41. support of emotional needs related to personal matters	1	2	3	4	5

Part VI

Directions: Picture a teacher requesting some teaching ideas or materials. Circle "M" if you would be more likely to share, or "L" if you would be less likely to share if the circumstances below were present. Next, circle the number that best describes how strongly each circumstance would influence you.

	CIRCLE <u>M or L</u>	AND	<u>1 to 5</u>						
Circumstances:	more likely	less likely	almost no influence	little influence	somewhat influential	quite influential	highly influential		
42. the teacher has a reputation for being critical	M	L	1	2	3	4	5		
43. the principal praises teachers who share	M	L	1	2	3	4	5		
44. the teacher has less teaching experience than you	M	L	1	2	3	4	5		
45. sharing of the material will be inconvenient	M	L	1	2	3	4	5		
46. you want to use the idea yourself	M	L	1	2	3	4	5		
47. you feel the teacher believes you have good ideas	M	L	1	2	3	4	5		
48. the teacher's room is near yours	M	L	1	2	3	4	5		
49. you bought or ordered the material personally	M	L	1	2	3	4	5		
50. you suspect the teacher will not like your idea	M	L	1	2	3	4	5		
51. you are not sure the idea will work	M	L	1	2	3	4	5		
52. you have received special recognition for the idea the other teacher wants to use	M	L	1	2	3	4	5		
53. you have not had prior contact with the teacher	M	L	1	2	3	4	5		
54. the teacher rejected your suggestion in the past	M	L	1	2	3	4	5		
55. you suspect the teacher will use your idea, but will not give you credit for it	M	L	1	2	3	4	5		
56. you believe it may be hard to retrieve the item	M	L	1	2	3	4	5		
57. the teacher is a personal friend	M	L	1	2	3	4	5		
58. the teacher has more experience than you	M	L	1	2	3	4	5		
59. you feel the teacher could have ordered a similar item for his/her own use	M	L	1	2	3	4	5		
60. you feel comfortable around the teacher	M	L	1	2	3	4	5		
61. the request is made in the presence of others	M	L	1	2	3	4	5		
62. you are the only one using the idea	M	L	1	2	3	4	5		
63. the teacher shared with you in the past	M	L	1	2	3	4	5		
64. the teacher teaches a different grade level, but is asking for something usually used at your level	M	L	1	2	3	4	5		
65. you spent a lot of time developing the idea	M	L	1	2	3	4	5		
66. you believe the teacher will tell others what good ideas you have	M	L	1	2	3	4	5		

APPENDIX B

Directions for panel:

Thank you for helping me. Please read each item. Then decide which of the four categories the item would most nearly fit by placing a check in the appropriate column. If you feel that an item has no relationship at all to any of the categories, place a check in the last column.

The four categories are:

- A. need for recognition/esteem; being seen as an expert
- B. need to feel ownership/competitive feelings
- C. fear of being rejected or of being viewed as failing
- D. degree of personal closeness/how well another person is known

Items:	RECOGNITION	OWNERSHIP	REJECTION	CLOSENESS	OTHER
1. the teacher has a reputation of being critical			5		1
2. the principal praises teachers who share	5	1			
3. you have received special recognition for the idea that other teacher wants to use	5	1			
4. sharing of the materials will be inconvenient		3		1	2
5. the teacher is the same sex as you				2	4
6. you have not had much contact with the teacher prior to the request			1	5	
7. the teacher has more experience than you	1		4		1
8. you feel the teacher believes you have good ideas	5			1	

	RECOGNITION *	OWNERSHIP *	REJECTION *	CLOSENESS *	OTHER *
9. you want to use the idea yourself		6			
10. the teacher's room is near yours				5	1
11. you bought or ordered the material personally	1	5			
12. the teacher has less experience than you	5				1
13. you suspect the teacher will not like your idea			6		
14. you are not sure the idea will work			6		
15. you know replacement parts would be difficult to get if the material was lost or damaged		3		1	2
16. the teacher is known as a master teacher	2		3	1	
17. you believe the teacher appreciates your efforts	3			2	1
18. the teacher rejected your suggestions in the past			5	1	
19. you suspect the teacher will use your ideas, but will not give you credit for it		6			
20. you feel the teacher could have ordered a similar item for his/her own use		6			
21. the teacher is a personal friend				5	1
22. you haven't personally tried the idea			2	2	2
23. the teacher teaches the same grade level as you	2			3	1
24. the teacher shared with you in the past	1			5	

	x	x	x	x	x
	RECOGNITION	OWNERSHIP	REJECTION	CLOSENESS	OTHER
25. the teacher teaches a different grade level, but is asking for something usually used at your level	3	2		1	
26. you spent a lot of time developing the idea		6			
27. you believe it may be hard to retrieve the item		5			1
28. you believe the teacher will tell others what good ideas you have	5			1	
29. you feel comfortable around the teacher				6	
30. you believe the teacher may not have the skill to follow through successfully	1	2	2		1
31. you are the only one using the idea		5			1
32. the request was made in the presence of others	6				